

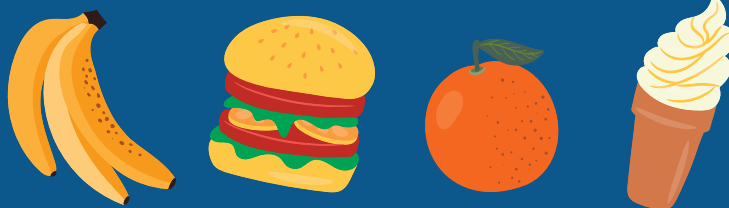
LifeTek-HELE5

Foundational Skills for Life

EDITION 1



Florivic Javier
Rondi Daryl Reyes
AUTHORS



LifeTek-HELE 5

Foundational Skills for Life

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FOREWORD

A livelihood is a necessity in life for adults anywhere in the world. While most people are content to earn a living as an employee, there are those who want to be self-reliant where their livelihood is concerned. Hence, the reason for the creation of the LifeTek-HELE and LifeTek-TLE courseware series by TechFactors Inc. (TFI)

TechFactors understands that it takes both knowledge and skill – applied knowledge – to be able to earn a living on one’s own efforts. Without these, it won’t be easy to make products or provide services for potential customers and clients. The LifeTek-HELE and LifeTek-TLE courseware teach livelihood education in a way that enhances both; adding information to knowledge that students may already know by way of discussion and using performance-based lessons to develop skills that students can employ later on in their work.

With the use of the Techfactors LifeTek-HELE and LifeTek-TLE courseware, livelihood educators would be able to focus on their ultimate goal for every Filipino student—to make them productive and contributing members of Filipino society.



About the Authors

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Florivic A. Javier was born and raised in Manila. She earned her bachelor's degree in Industrial Education major in Electronics at the Technological University of the Philippines (TUP), where she also completed 31 postgraduate units for a master's degree in Industrial Education. She has been in the teaching profession for nearly 25 years, as a teacher III of Lakan Dula High School in Tondo, Manila. She has experience teaching in grade levels 7 to 10. At present, she is handling Grade 7 T.L.E. Vocational (exploratory) and is also president of the Technology Educator's Association of Manila, president of Grade 7-TLE-Voc group of teachers (also in Manila) and is one of the founders of the Livelihood Educators Association of the Philippines where she is also the elected president. She is recognized as the author of the Mechanical Drafting modules currently used in Manila.

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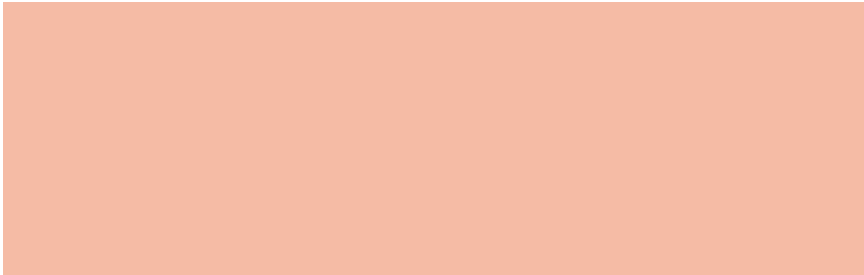


About this Resource

The LifeTek-HELE 5 module aims to provide students education that focuses on practical proficiencies for the home front as well as skills that are essential in life. This will enable the grade-schooler to be of help to themselves, be productive in their family and community, as well as be prepared for higher levels of education. Subjects include ICT and Entrepreneurship, Agriculture, Home Economics and Industrial Arts, all of which revolve around related technologies.

Learning Outcomes

At the end of this courseware, the learners will be able to:

1. Acquire livelihood know-how that can be used at home and in everyday life situations.
 2. Practice learned skills that are essential in life.
 3. Develop awareness in achieving a healthy family and community relationship.
 4. Demonstrate the ability to produce products by providing learners a meaningful and productive learning experience.
- 

HOW TO USE THIS RESOURCE



LEARNING OUTCOMES

Each lesson has its own set of learning goals. This informs the readers on what is expected to be learned by the end of the lesson.



ENGAGE

This is a brief and fun activity that is related to the topic that can help in attracting the attention of the students.



EXPLORE

This is an assessment tool that is administered before the discussion and is used to determine the student's prior knowledge on the subject matter.



RESEARCH

This is an activity for the student's additional knowledge and information before the lesson discussion.



EXPLAIN

This is where the main content of the lesson is found.



EXERCISE

This contains exercises after the discussion.



SUMMARY

This is a synopsis of the lesson.



LESSON OUTPUT

This is an individual project to determine the student's practical mastery of the subject matter.

TABLE OF CONTENTS

ICT AND ENTREPRENEURSHIP

1

Lesson 1: Entrepreneurship Concepts	2
Lesson 2: ICT – Productivity Tools	16
Lesson 3: Creating Product Knowledge Advertisements Using Productivity Tools	34
Lesson 4: Media File Sharing and Discussion Forum and Chat	48

AGRICULTURE

61

Lesson 1: Livestock (introduction)	62
Lesson 2: Tools and Equipment	72
Lesson 3: Taking Care of Livestock	90
Lesson 4: Fertilizers	104

HOME ECONOMICS

115

Lesson 1: Meal Planning	116
Lesson 2: Budgeting	134
Lesson 3: Marketing	142
Lesson 4: Clothes Care	152

INDUSTRIAL ARTS

183

Lesson 1: Handicraft	184
Lesson 2: Woodworking	204
Lesson 3: Metal Works	212
Lesson 4: Electrical Works	222

ICT and Entrepreneurship

Entrepreneurship
Concepts



ICT - Productivity
Tools



Creating Product Knowledge
Advertisements Using
Productivity Tools



Media File Sharing,
Discussion Forum and Chat



Lesson 1

Entrepreneurship Concepts

TRIVIA

Every business that ever existed began with one or more businessmen finding and using an opportunity to make money. However, starting a business and making it successful needs much more than being at the right place at the right time. Let's get to know the concepts behind the art of starting businesses in this lesson.



LEARNING OUTCOMES

At the end of the lesson, you are expected to:

1. Define what entrepreneurship is.
2. Identify and describe entrepreneurial concepts.
3. Relate the concepts of entrepreneurship to personal qualities of entrepreneurs.
4. Differentiate product and service.
5. Explain what target market is.
6. Discuss different selling methods.



ENGAGE

1. Does your family have a business, or do you know anyone who owns a business? What businesses are near your home? What about your school?
2. What can you say about the businesses around your home? What do they provide to people?



EXPLORE

True or False

Write TRUE if the statement is correct, and FALSE if it is not.

- _____ 1. People start businesses in order to provide for their families through providing what people need and want.
- _____ 2. A T-shirt is a kind of clothing, which is also part of the basic needs of people.
- _____ 3. A person who starts a business can be called an enterpreneur.
- _____ 4. Before people had businesses, they exchanged items with each other in a process called interchange system.
- _____ 5. Open-mindedness is one of the concepts of entrepreneurship.



RESEARCH

Many of the most successful businesses in the Philippines have been the result of the work of entrepreneurs. For this lesson, you will make a report on an entrepreneur and the business (or businesses) that they have established. You may include other information that you find in the report.



EXPLAIN

Definition of terms

Entrepreneurship – the ability to identify potential business opportunities in different situations.

Entrepreneur – a person who can identify business opportunities and start businesses.

Needs – objects that are required for people to survive.

Wants – objects that make life a little better or easier.

What is Entrepreneurship?

Your parents, or even your older siblings might have jobs that they go to. People have jobs to earn money and provide for their families, or for themselves.

For some people, their job is running their own business. A business can have lots of people working under it.

Why do people create businesses instead of finding a job?

Simply put, people create businesses because they see what their community **needs** or **wants**, and they can make money by providing it. These needs and wants can either be **products** or **services**.

Needs are **things that are required to survive in life**. As people, we have the most important ones, which are our **basic needs** – food and water, clothes, and housing or shelter. We will be hungry and thirsty without food and water, and we will be exposed to hot or cold weather without clothes or some form of shelter.



Aside from needs, people also have **wants—things we don't really need, but which make life easier or better if we have them**. For example, we can live even if we eat simple food every day, but eating special meals once in a while is all right.



A person starting a business is often called a businessman, but can also be called an **entrepreneur** (pronounced as **ahn-thra-pra-noor**). The ability to find the right place and time to start a business is called **entrepreneurship** (pronounced as **ahn-thra-pra-noor-ship**).

Your neighborhood *sari-sari* store is a good example of an entrepreneur in action. They sell different items so you won't have to go far to buy them. In exchange, the prices of a *sari-sari* store are a little higher than usual to make up for the cost of transporting them from the supermarket.

A Brief History of Entrepreneurship

Before people made businesses out of selling things or services to other people, they traded objects between them, or what is known as the **barter system**.

Bartering usually went like this: Person A has a bunch of bananas, and he needs to have a big bowl, which Person B has. Person B can agree to the trade (the bananas for the bowl), or demand more items to match the **value** of his bowl.



As time went on however, people found it harder to exchange items for other items, especially if they cannot agree on the value of the objects being traded. They moved on to using common items (usually precious metals like gold or silver, or gemstones) to stand for the value of the object they are trading, such as 10 pieces of silver being traded for a bunch of bananas, or 20 pieces being traded for the bowl.



These are coins from the ancient Greek city of Ephesus, and are from 650-625 BC. These coins are made of an alloy of gold and silver.

https://commons.wikimedia.org/wiki/File:Triti,_Phanes,_625-600_BC,_Ionia_-_301224.jpg#/media/File:Triti,_Phanes,_625-600_BC,_Ionia_-_301224.jpg



This is an example of a denarius, a coin used in Ancient Rome. The person on the coin is the Roman emperor Marcus Aurelius.

By Rasiel at English Wikipedia,
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Using common items or a **medium of exchange** allowed them to trade even if they did not have the objects involved in the trade. This “medium of exchange” eventually became what we know today as **money**.

Eventually, people became more aware of the goods and services that their communities needed. They realized that they can offer services, make products, or buy products from other sellers that they can then sell to other people for a **profit**, or more money than they spent to get that product or be able to provide that service.

As **entrepreneurs**, they started businesses that offered these goods and services to people in their communities and others outside. This cycle of people needing something and other people providing what they need became the economic principle of **Supply and Demand**.

Concepts of Entrepreneurship

Let's study this example to better understand the concepts of entrepreneurship.

Joey lives in a village in Quezon City. He likes to eat fresh bread every morning for breakfast. However, the nearest bakery is a kilometer away from his home, so he goes there to buy bread.

One day, Joey bought more bread than he could eat, so he sold the excess to his next-door neighbor for a little more than what he paid for. He realized that he can buy bread and sell it to his other neighbors who, like him, want bread but don't want to go all the way to the bakery. Every time Joey went to the bakery, he bought bread, then resold it for a profit.

Eventually, Joey saved enough so that he was able to set up a small bread store. He was able to answer his neighbors' wants, and even his own.

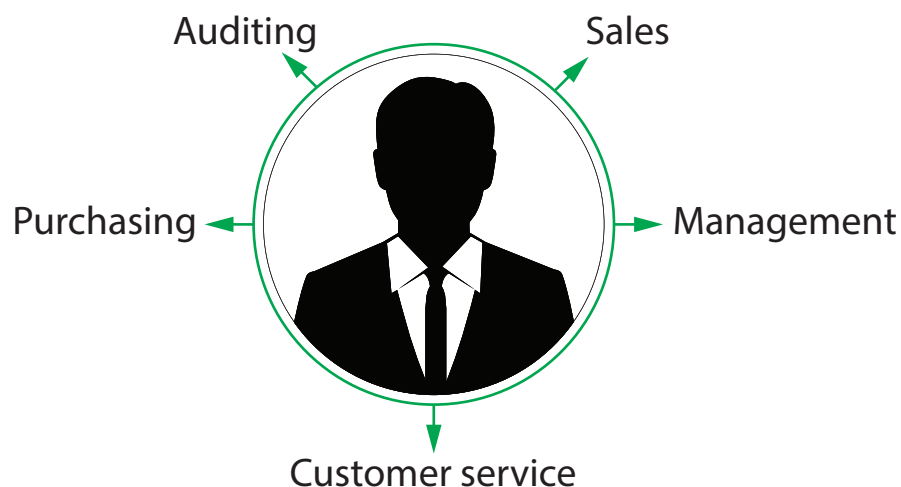
In our example, Joey is reselling bread that he buys from a bakery. Reselling is one of the most basic and most common forms of entrepreneurship. Let's see how Joey is starting to be an entrepreneur by looking at the different concepts of entrepreneurship, and seeing how each one fits with his actions.

Innovation and creative thinking: Starting a business needs a lot of thinking from the entrepreneur. They have to find the product or service to sell. They must also be able to find the right time and place to start a new or better business or service. In our example, Joey saw that it was a good time to start a bread-selling business in his community. Knowing that many people like eating bread, he bought extra pieces and sold them, making a little profit in the process.



Flexibility: Joey played many parts in his new business. He created the idea behind it, found a product to sell, and did the actual selling, among others.

In the same way, there may be times when entrepreneurs will have to start a business from nothing more than an idea. Because of this, entrepreneurs must be **flexible** — able to work in different areas of the business they are starting up. They must find a product to offer and find sellers who will supply their product or the materials they will use to make it. They will have to develop a plan to market their product and sell it to customers. If needed, they will have to give help to customers who are having problems with their product.



Open-mindedness: Entrepreneurs know that they won't earn lots of money in the early stages of running a business. They also know that they need to deal with changes for the business to survive and be competitive. In Joey's case, it's possible that bread prices might change, or the bakery that he buys his stocks from closes. He will have to deal with those problems as they happen.

Risk-taking: Entrepreneurs know that one of two things may happen when starting a new business—either it succeeds and they earn money, or it fails and they lose money. A good entrepreneur knows how to study the situation and take risks in their business if they believe that they will profit a lot from it, or quit the business while they are ahead to keep from losing too much money.

After some time, Joey needs to study if his business is making money, and decide if he wants to continue on with it, or stop it altogether.

An entrepreneur's work does not stop when he starts the business being planned. The success (or failure) of their business depends on the decisions that they make every day. Knowing and following the **concepts of entrepreneurship** gives the entrepreneur a greater chance of success.

Products and Services

People and businesses make money by providing products, services, or both to their clients or customers.

Products are physical or material things, meaning we can see and touch them, and are sold and bought because people want or need them. On the other hand, services involve activities done for other people in exchange for money, such as people practicing their profession, like doctors or teachers, their resources, like water or electricity companies, or their skills, such as acting.

Because products are physical items, it's easy to return them to the seller if the buyer finds out that there is a problem with them. On the other hand, services almost always involve an amount of time on the part of the service provider and so, cannot be easily returned or replaced if the customer doesn't like the service.

Products also have an element of service. Take bicycles for example. The bicycle is the product, while its use as a form of transportation and mobility is the service.

What is the Target Market?

An important part of planning a business is knowing its target market. But what is a target market?

A business' target market is the group of people who are most likely to be its potential customers. Knowing the target market of a business is very important when it comes to entrepreneurship; if you do not know who your target market is, you won't be able to sell products or services efficiently, resulting in wasted time, money and effort.

Some things to consider in choosing your right target market are the location of your business, the number of people who live in the community, their income, and their buying capabilities, or purchasing power.

Steps In Identifying Your Target Market

The following are the steps to consider in choosing your right target market.

1. Know your product and/or service. – You need to know everything about your product when choosing the right target market. Doing so tells you several things, such as the value of the product and how much you can sell it for, the kind of people who are most likely to buy the product, and even where a business may be located so that it has the greatest chance to be profitable.
2. Define your target market – Some of the criteria to consider in choosing your target market are the following:
 - Age
 - Gender
 - Income
 - Location
 - Behavior
 - Lifestyle
 - Values Interest

3. Know what your competition has and doesn't have. – Did you ever wonder why fast food restaurants have similar meal choices? This is because they study each other's offerings and try to develop similar meal items.

One of the easiest ways to learn about your target market is to study the people offering the same products and services as you do – your competition, in other words. This will allow you to change your offerings, or your business plans in order to offer something that your competition does not have, and try to get some of their target market in the process. For example, if your competition only sells hamburgers, you can include fries and drinks to the hamburger, then sell them to people looking for a quick, complete meal.

4. Reach your target market – Once you have already identified your target market, you can now work on the marketing strategies that will be used to reach your target market.

Different Selling Methods

Selling is easy. If someone accepts something from you in exchange for money, you would have already sold something. Selling as an idea seems simple and straightforward, but there are many ways to sell. The following are some of the different ways to sell a product.

1. **Retail selling and Wholesaling**

Retail selling, or retailing, refers to the practice of a business selling items directly to a customer, often in small amounts. The sari-sari stores in your neighborhood are examples of retailers, since you can buy products per piece. However, big businesses like department stores, drugstores, and convenience stores can also be considered as retailers since they can sell items individually.

Retailers buy their products from other businesses called wholesalers, who sell products in bulk, or in large quantities (boxes or bundles) but at a slightly lower price. In this way, supermarkets can be considered as either retailers (because you can buy items per piece from them) or wholesalers, because some supermarkets allow you to buy in bulk.

2. **E-Commerce**

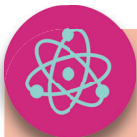
E-commerce is buying and selling done online. Buying and selling goods on the Internet is the most common example of e-commerce. Sellers put up storefronts which serve as virtual retail outlets, where online buyers can browse and purchase products. This mode of selling is known as electronic retailing, or e-tailing.

However, because the Internet spans the whole world, customers can buy items from sellers in different countries aside from their own. In addition, they can even buy directly from the manufacturers of the items, then have them customize it according to the buyer's requirements.

3. **Multimedia Advertisements**

Advertisements are one of the main ways of selling a product. It plays an important role in selling products because they make potential buyers aware of the product, which can convince them to buy it.

Products with a nationwide target market usually have advertisements in all forms of media -- TV, radio, print, and on the Internet. This is the reason why advertising often has huge budgets -- to cover the cost of production and buying of physical spaces and airtime.



SUMMARY

People have needs and wants, and businesses answer these needs and wants in exchange for profit. A person who starts a business can be considered as an entrepreneur. Entrepreneurship is governed by several concepts, and some or all of these concepts can also be personal characteristics of entrepreneurs.



EXERCISES

Exercise 1

Identify the following.

- _____ 1. This is a person who starts a business; another name for a businessman.
- _____ 2. This is the skill of finding opportunities to start businesses.
- _____ 3. These are things that are required for people to live.
- _____ 4. These are things which are not really needed by people, but make life a little better.
- _____ 5. A business can offer products, or it can offer.

Exercise 2

Identify whether the following businesses provide products or services. Write **P** or **S**.

- _____ 1. The neighborhood carinderia selling cooked food.
- _____ 2. The veterinarian taking care of your pets.
- _____ 3. The hardware store selling wood, paint and other home repair goods.
- _____ 4. The barber who cuts your hair.
- _____ 5. The internet café where your sister prints files for her schoolwork.

Exercise 3

Unscramble the words based on their definitions

- 1. AKTIGN KISR: This concept describes how entrepreneurs manage the possibility of earning from the business or losing money from it.
- 2. INSSDEEMND PNEO: This concept describes how entrepreneurs must accept the challenges of starting and running a business.
- 3. LXEFLLIBTIY: This concept describes how entrepreneurs must work in different roles during the early days of their business.
- 4. TNAIVNINOO: This concept describes how entrepreneurs must think of new ideas in order to develop their business.

Exercise 4

Essay. Answer the following. (5 points each)

1. Define the term "product" in your own way.

2. Define the term "service" in your own way.

3. What is the difference between a product and a service?

Exercise 5

Enumeration. Answer the following.

1. What are the steps in identifying your target market?

2. Give six (6) criteria to consider in choosing your target market.

Exercise 6

Identify the terms being describe in the sentence. Write your answer on the space provided.

- | | |
|-------|---|
| <hr/> | 1. The people or businesses that sells products directly to a customer. |
| <hr/> | 2. One of the most effective ways of selling a product. |
| <hr/> | 3. The people that sells products in bulk. |
| <hr/> | 4. This mode of selling is known as electronic retailing, or e-tailing. |
| <hr/> | 5. The most common example of e-commerce. |



LESSON OUTPUT

Make a simple map of businesses near your home. Try to include up to five (5) streets around your home if there aren't many businesses near you. (Ask your parents or older siblings for help if needed.) If you live near a mall or a shopping center, you only need to give its name, but you need to show the businesses around it.

Draw the map on a sheet of paper and label the businesses, and the products or services that they provide. Present your drawing to your classmates.

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The map is well designed, with complete labels and descriptions. The map is very detailed.	The map is well designed, but only has labels. The map has a medium level of detail.	The map has a medium level of design and detail.	The map has a low level of detail and design.	The map only has design, but little to no detail.	
2. Creativity	The map is unique, and the detail icons easy to understand at a glance.	The map is unique; details are indicated using generic markers.	The map has ordinary dots with a detailed legend explaining them.	The map has a basic legend explaining the details of the map.	The map used details from a mapping service like Google Maps.	
3. Promptness	The activities and exercises were completed two or more days ahead of the given deadline.	The activities and exercises were completed one day ahead of the given deadline.	The activities and exercises were completed by the given deadline.	The activities and exercises were completed one to two days after the given deadline.	The activities and exercises were completed three days after the given deadline.	
TOTAL						

Lesson 2

ICT-Productivity Tools

TRIVIA

Aside from Microsoft Word, Excel and PowerPoint, there are several other programs under the Microsoft Office banner, making it a complete office productivity package. Some of these programs are also available as smartphone apps aside from desktop versions, allowing users to access them on the go.



LEARNING OUTCOMES

At the end of the lesson, you are expected to be able to:

1. Define the concept of productivity.
2. Identify what a productivity tool is.
3. Identify the differences between online and offline office suites.
4. Identify other productivity tools that you may have on a computer.
5. Discuss basic functions and formulas in MS Excel for data keeping.
6. Learn to use Word processing tool.



ENGAGE

1. Does anyone in your family have their own laptop or computer? Ask them about the office apps that they commonly use, and what they use them for.
2. Ask your parents, or even your grandparents about the way they made their schoolwork before they had computers.



EXPLORE

True or False

Write TRUE if the statement is correct, and FALSE if it is not.

- _____ 1. Video games are a kind of productivity software.
- _____ 2. Many kinds of programs can be installed into a computer.
- _____ 3. A word processor can be used to write letters.
- _____ 4. Apple's MacOS has its own office suite called iWork.
- _____ 5. Google's online word processor is called Docs.



RESEARCH

Research on the word processor devices and programs used before Microsoft Office or Microsoft Word. You only need to present the important details, such as its inventor or developer, the time period in which it was used, and what technologies it introduced.



EXPLAIN

Definition of terms

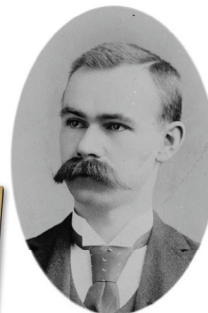
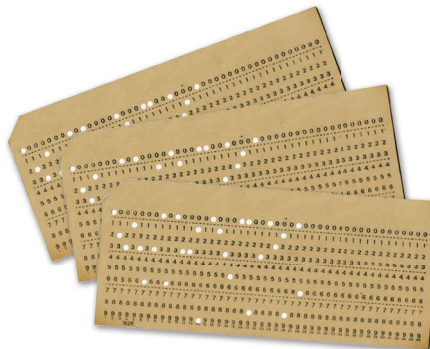
Productivity – getting as much work done in as little time using the smallest number of resources possible.

Payware – A program that requires payment before you can use it legally.

What is Productivity?

Looking back at the history of computers, it's easy to understand that they were developed to **make work easier**.

For example, the United States government conducted a nationwide **census**, or count of their population in 1890. A man named Herman Hollerith developed a tabulation system based on **punch cards** that the government used to compute the results of the census. By using Hollerith's system, the government was able to save two years of work by finishing the counting in six years instead of the usual eight, as well as five million dollars.



After more than 130 years of development, computers and technology are still being used in order to work better, faster and easier. In other words, using computers in day-to-day work increases the level of **productivity** of an employee.

Productivity can be defined in several ways, but one of the easiest ways to define it is **getting as much work done while using the smallest number of resources possible**. Another word for productivity is **efficiency**.

Resources are the things that you use to create something else. They can be material things like money or materials, or non-material things like time and energy.



Study the following example to understand what this means.

Imagine that you have been given a project by your teacher. The project is a short biography of Dr. Jose Rizal. Nowadays, all you need to make the project is to open a web browser, find a web page about Rizal, and create the biography using the information in the web page using Microsoft Word. If you have your own computer and a fast internet connection, you can make the project in an hour, leaving you with plenty of time to watch TV or play games.

Now, imagine if your internet connection was interrupted, and won't be back for three days, but you need to submit your project the day after today.

You would need to go to the library to research on Rizal, then collect all the notes that you made in order to make the paper in Microsoft Word. If the library is far from your home, you would be able to make the project in four hours or more.

Imagine if you didn't have a computer to use in making the project, and you would

have to write out the project by hand. The four hours that you would need to make the project will take at least six hours or even more.

In the example, your computer, internet access, and time are resources. Because you used the computer to do research on the internet and make the document for your project, you were more productive and efficient than in the other two situations, because making the project took a lot more time that you could have used for other activities.

With this example, it's easy to see how technology can help increase a person's productivity. Using technology in the form of a word processor and the internet, you are able to produce a paper on Rizal in the least time and effort possible, compared to only using a word processor or not using any technology at all. In other words, technology helps you to become more **productive** in making your schoolwork.

ICT Productivity Tools

We know that you can install different kinds of programs into a computer depending on the work that needs to be done. For example, people making special effects for movies may have video editing and 3D modelling programs installed in their computers, while people making websites and apps have programs to build the code needed to make them work. The programs help them to be productive in their jobs. Because they are used for work, they can be considered as **productivity tools**.



On the other hand, some workplaces do not need special programs for them to do their business, but they do need to create lots of documents instead. This is also true for ordinary users like students. Office productivity software packages, also known as office productivity programs or **office suites**, are the most popular kind of programs for personal computers because people will always have a need for one kind of document or another.

There are office suites for every operating system, and some office suites have versions for different operating systems. Some office suites are free to use, while some need to be paid for before you can use them.

Parts of a Productivity Suite

An office suite commonly has the following programs as its main components:

- word processor** – a program used to input, edit, format and make outputs of text documents.
- spreadsheet** – a program used to input, analyze and compute values in a table of rows and columns.
- presentation software** – a program used to create slideshows in order to show information and present reports.

In the **Microsoft Office suite**, these are the programs **Word**, **Excel** and **PowerPoint**. Aside from the three main programs, an office suite may have the following components:

Component	Microsoft Office program name
Database management program	Microsoft Access
Desktop publishing program	Microsoft Publisher
Email program	Microsoft Outlook
Communication program	Skype or Microsoft Teams
Diagramming software	Microsoft Visio

Other programs may also make up an office suite.



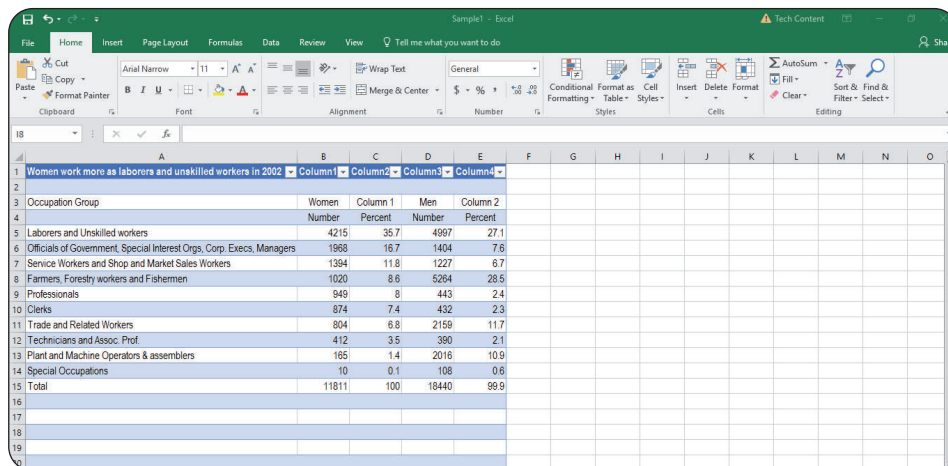
Microsoft Office is an example of a paid productivity package. The desktop version of Office is subscription **payware**, meaning users need to pay money every year in order to use the program legally. The Office app for mobile devices is free to use, with extra features unlocked if you have a subscription to the desktop version of Office. On the other hand, **Apache OpenOffice** and **LibreOffice** are examples of free productivity software; all features are available once the program is installed.

Microsoft Office, Apache OpenOffice, and LibreOffice are available on the Windows and MacOS operating systems. The MacOS operating system has its own office suite called **iWork**.

MS Excel Basic Functions and Formulas

You can do more with Microsoft Excel than create spreadsheets. Using Excel tables, you can easily manage and analyze related data. You can add or delete table columns or rows, filter columns, format the table and its elements, resize it, and even generate several kinds of summary data.

Conditional formatting makes it easy to see, at a glance, any patterns and trends. You can tell Microsoft Excel to apply conditional formatting to all cells based on their values. You can also tell it to apply such formatting only to cells meeting particular criteria that you choose. Spreadsheets are no longer just dizzying columns and rows of data but a way to easily and visually understand and analyze that data.



The screenshot shows the Microsoft Excel interface with a table titled "Women work more as laborers and unskilled workers in 2002". The table has columns for "Occupation Group", "Women", "Column 1", "Men", and "Column 2". The data is organized into rows, with the first row being the header and subsequent rows containing numerical data. The table is displayed in a grid format with alternating light blue and white rows.

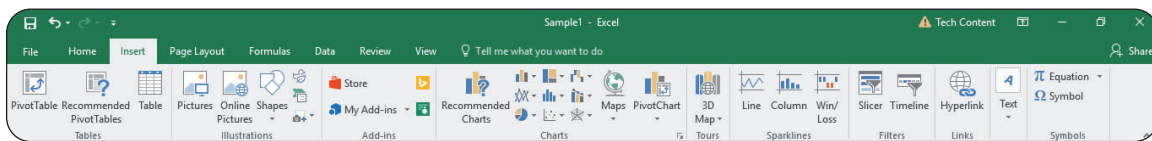
Occupation Group	Women	Column 1	Men	Column 2
1 Laborers and Unskilled workers	4215	35.7	4997	27.1
2 Officials of Government, Special Interest Orgs, Corp. Execs, Managers	1968	16.7	1404	7.6
3 Service Workers and Shop and Market Sales Workers	1394	11.8	1227	6.7
4 Farmers, Forestry workers and Fishermen	1020	8.6	5264	28.5
5 Professionals	949	8	443	2.4
6 Clerks	874	7.4	432	2.3
7 Trade and Related Workers	804	6.8	2159	11.7
8 Technicians and Assoc. Prof.	412	3.5	380	2.1
9 Plant and Machine Operators & assemblers	165	1.4	2016	10.9
10 Special Occupations	10	0.1	108	0.6
11 Total	11811	100	18440	99.9

Excel offers an easy way for you to manage and analyze related data. You can do this through a Microsoft Excel table, which used to be known as an Excel list. A series of rows and columns, an Excel table contains related data managed separately from data in other rows and columns on a worksheet. You can add or delete columns or rows, filter columns, format the table and its elements, resize it, and even generate totals. You can create more than one table in the same worksheet, but you cannot insert a table in a shared workbook.

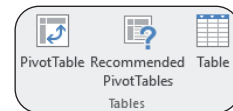
Create an Excel Table

There are two ways to create an Excel table: you can use the mouse, or the keyboard shortcut. In both ways, you must first select the range of empty cells or data that you want to become a table on your worksheet.

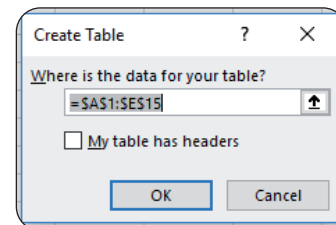
Using the keyboard shortcut, you can press either of two key combinations: CTRL+L, which is the old shortcut telling Excel to create an Excel list; or CTRL+T, the new shortcut in Excel 365 to create a table.



In the Tables group of the Ribbon's Insert tab, click on Table. Select the My table has headers check box if the range you selected contains data that you want to become your table's headers. Otherwise, your table's headers will display default names that you can change into what you want.



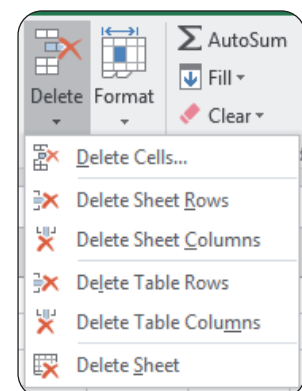
When you create a table, each column's header row is automatically set up so that you can quickly filter or sort your data. Once the table is created, the Table Tools become available, and the Ribbon shows a Design tab. You can make changes to your table using the tools on this tab.



Delete Columns or Rows in a Table

If your table has more columns or rows than what you prefer, you can remove the extra ones. To remove rows and columns, select one or more table columns or rows that you want to delete. You can also select individual cells in those table columns or rows.

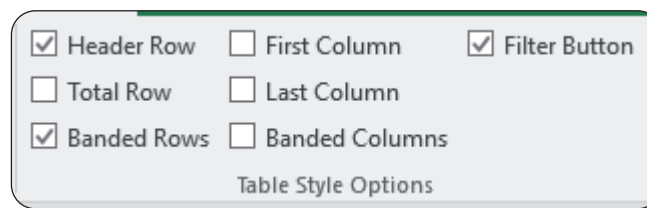
In the Cells group of the Home tab, click on the arrow next to Delete, and then click on Delete Table Columns or Delete Table Rows. You can also right-click one or more columns or rows, point to Delete on the shortcut menu that appears, and then click on Table Columns or Table Rows.



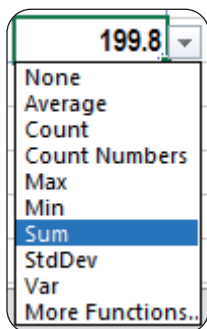
You can also right-click one or more cells in a table column or row, point to Delete on the shortcut menu that appears, and then click on Table Columns or Table Rows.

Displaying and Calculating Table Data Totals

You can also add a total row to your table to quickly total its data. A total row appears as the last table row and displays the word Total in the leftmost cell. It offers a drop-down list of aggregate functions for each total row cell.



To add a total row to your table, first click anywhere inside the table to display the Table Tools with the Design tab. In the Table Style Options group of the Design tab, click on the Total Row check box. In the total row, click the cell in the column for which you want Excel to calculate a total, and then click on the drop-down list arrow that appears.



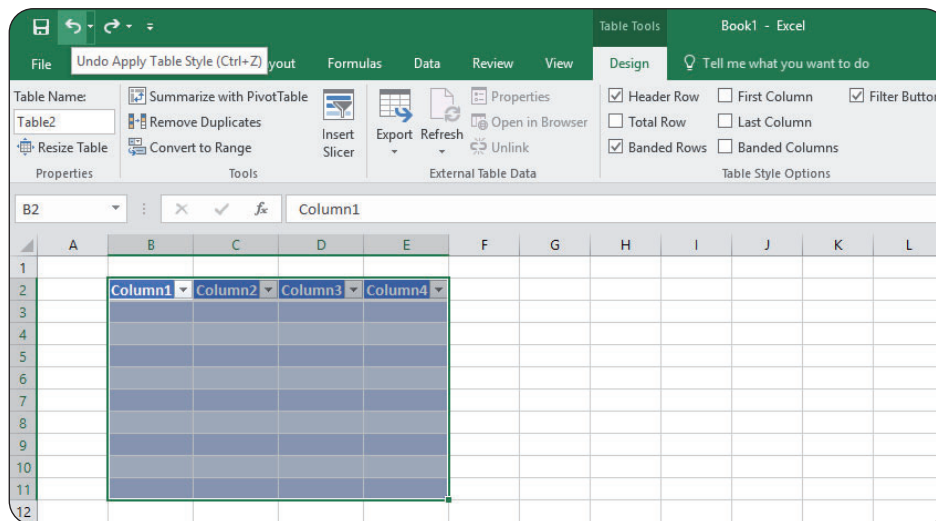
In that list, select the function that you want to use to calculate the total. You can choose from among Average, Count, Count Numbers, Max, Min, Sum, StdDev, and Var. If you click on More Functions..., Excel offers you the rest of its array of functions.

You can still type any formula that you want in any cell in a total row cell. You can also enter text entries. When you input a formula in any cell in a row directly below a table that has no total row, that row is displayed with the formula and without the word Total.

Delete an Excel Table

To remove an Excel table from your worksheet, you can either convert it back to a range, or you can delete it entirely.

First, on your worksheet, select or highlight the table that you want to remove. Then, just press DELETE. If you have just created your table, you can also click Undo on the Quick Access Toolbar to delete it.



What Is Word Processing?

If you can work on a keyboard then you can do word processing! This is because word processing requires good keyboarding. Without honed keyboarding skills, word processing is not easy. Word processing and keyboarding work together on the computer to produce quality output quickly.

A computer can be used to process text. Word processing means using a computer to type, edit, and print text on paper. Typing is done on the keyboard. The words are turned into digital data by the computer, and then the entire document is saved in the hard disk. A printer is needed to print the words on paper.

Word processing programs can correct typing mistakes easily. MS Word is an example of a word processing program. It has tools to edit what is typed on the screen.

Basic Word Processing Tools

1. **Copy.** This copies letters and other characters.
2. **Insert.** This places characters in between letters or words.
3. **Delete.** This erases text and/or images.
4. **Cut & Paste.** These allow text and images to be “cut” and “pasted,” just like on paper.
5. **Find.** This is used to find words.
6. **Automatic Line Break.** Once the text reaches the end of a line, this moves the cursor to the beginning of the next line.
7. **Page Setup.** This changes page size, margins, and layout.
8. **Print.** This prints what is typed on the screen onto paper.

Simple word processors are called text editors. Microsoft Notepad and Microsoft WordPad are text editors. More complex word processors are called full-feature word processors.

Tools of Full-feature Word Processors

1. **File Manager.** This is used to copy, create, delete, and rename files and/or directories.
2. **Text Editor.** This changes text by deleting parts of it, typing over it, or inserting more text.
3. **Insert Graphics.** This pastes graphics like clip art or another file onto your page.
4. **Format.** This changes the look of the page by allowing you to insert graphics and to change fonts and margins.
5. **Spell Check.** This checks if the words in the document are correctly spelled. Those that are misspelled are highlighted with a wavy, red line.
6. **Thesaurus.** This gives a list of words that have the same meaning and can replace a selected word.
7. **WYSIWYG.** This means “What You See Is What You Get.” What you see on the monitor is what you get on paper.

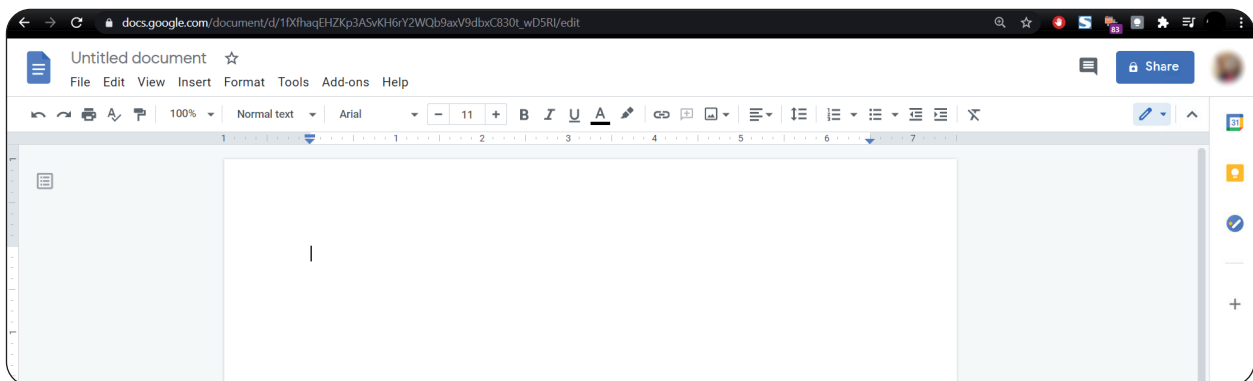
Online Productivity Tools

The development of faster internet access allowed some office suites to work as **web apps** accessible through a browser instead of being installed into a computer.

Being web apps, online office suites can let people work anywhere as long as there is a device with an internet connection. All their work is saved online, so there's no need to use a USB drive to transfer work between computers. In addition, many people can work at the same time on a single document, and all their work is shown in the document as it happens.



The **Google Docs Editors** is an example of this kind of office suite. Introduced in 2006, they can be accessed through a web browser and through mobile apps. In addition to those, they can be accessed with Chromebooks, which are laptops using Google's Chrome OS.



The Google Docs Editors has a word processor, a spreadsheet, a presentation program, a diagramming program, a note-taking program, a website creator, and an online form maker. The image above is the word processor app, also called Docs. The Google **Docs** equivalent of Microsoft Excel is called **Sheets**, and its equivalent of PowerPoint is called **Slides**.

Some of the office productivity suites introduced previously, like Microsoft Office, iWork and LibreOffice also have online or web app versions that can likewise be accessed through the programs themselves, or through browsers.

Online office suites can do most of the work that offline office suites can without having to install anything on the computer; this is why many companies with employees working outside prefer using them. However, online office suites require a relatively strong and stable Internet connection to work properly, because they save all the changes made to a document continuously instead of waiting for you to save your work. You won't be able to access an online office suite at all if you're not connected to the internet, and if you get disconnected while working, you will have to wait until it is restored before changes to the document will be saved. However, if you have an offline office suite installed, you can download a copy of your document from the online suite to continue working on it, then merge your changes later.

Other Productivity Programs

Aside from office suites, there are other programs that companies and employees can use to enhance productivity.

Web browsers – These are programs that are used to access websites and other internet resources, like online office suites. Examples of these are **Google Chrome, Mozilla Firefox, Microsoft Edge, Safari, and Opera.**



PDF (Portable Document Format) viewer – PDF is a file format that can be considered as an image of a document, like a picture taken using a camera. As such, PDFs preserve how a document is supposed to look, fonts and images included, even if it is viewed across several platforms like computer and mobile device screens. Some companies use PDFs to send virtual, or paperless bills.

PDF viewers such as **Adobe Reader** and **Foxit Reader** are used to open PDF files, but cannot change its contents.

Graphics editors – these programs are used to create and compose different kinds of images, as well as perform operations like retouching (fixing damaged photos), layout (creating composite images) and colorization (adding color to black-and-white photos). The most common mainstream graphics editor is **Adobe Photoshop**, but there are also alternatives like **Paint.NET** and **GIMP**, which can do most of the same functions for free.



Desktop Publishing (DTP) programs – These are page layout programs that are used to create print and digital documents as well as graphics for other forms of printed media. Aside from **Microsoft Publisher**, **Adobe InDesign** is a popular DTP program.

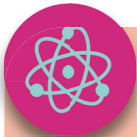


Messaging apps – Some companies communicate with employees and even customers using chat, or messaging apps. Some of these apps even support video calls. Facebook's Messenger app is widely used, as well as alternatives like **Zoom**, **Viber**, and **Skype**.



Note-taking apps – Some jobs require workers to keep track of little bits of information that might be important at a later date. Note-taking apps work like a virtual notebook that holds whatever the user wants to put in it. Some kinds of note-taking apps can work on both mobile and desktop platforms, allowing users to input information whenever they are needed and syncing note contents at the same time. Examples of note-taking apps are **OneNote**, **Evernote**, and **Google Keep**.

Cloud storage – Some businesses have a certain amount of online storage space available for their employees to use. This space can be accessed through apps like **OneDrive** and **Google Drive**.



SUMMARY

Productivity is the practice of getting more work done with the least amount of effort put into it. The development of computers has greatly improved the way that people work, and productivity software allow people to do more with their devices than ever before. Office suites are the most popular kind of software because people of different ages and from different fields use it regularly.



EXERCISES

Exercise 1

Identify what is being asked for in each sentence.

- _____ 1. This kind of program is used to create and edit text documents.
- _____ 2. This kind of program handles values in tables.
- _____ 3. (2 words) This kind of software is used in businesses and offices around the world.
- _____ 4. This file format can be considered as a picture of a document.
- _____ 5. (2 words) This kind of program is a productivity tool used to open websites.

Exercise 2

Choose the letter of the correct answer from the options given.

Answer	Question	Choices
	1. Data storage space online	A. Slides
	2. An example of presentation software	B. Cloud storage
	3. Google's version of a presentation program is called _____.	C. Note-taking apps
	4. Can be considered as a digital notebook.	D. PowerPoint
	5. Google's version of a spreadsheet is called _____.	E. Sheets

Exercise 3

Give the kind of productivity software that you would use in the given situations.

- 1. Your teacher in your English language subject assigned you to write a book report.
 - a. Spreadsheet
 - b. Presentation software
 - c. Word processor
 - d. PDF viewer

2. Your mom would like an easier way to organize your family budget.
 - a. Word processor
 - b. Web browser
 - c. Graphics editor
 - d. Spreadsheet
3. Your dad found some old family photos that he wants to restore.
 - a. Presentation software
 - b. PDF viewer
 - c. Graphics editor
 - d. Cloud storage
4. You have to create a text document but do not have a USB thumb drive to save your work on.
 - a. Desktop publishing apps
 - b. Online office suite
 - c. Spreadsheet
 - d. Note-taking apps
5. Your sister has to attend her online classes.
 - a. Word processor
 - b. PDF viewer
 - c. Graphics editor
 - d. Messaging apps

Exercise 4

Fill in the blanks in creating tables in MS Excel. Write the correct answer on the space provided.

1. There are two ways to create an Excel table: you can use the _____, or the _____ shortcut. In both ways, you must first select the range of _____ cells or data that you want to become a table on your worksheet. Using the keyboard shortcut, you can press either of two key combinations: _____, which is the old shortcut telling Excel to create an Excel list; or _____, the new shortcut in Excel 365 to create a table.
2. In the Tables group of the Ribbon's Insert tab, click on _____. Select the My table has headers check box if the range you selected contains data that you want to become your table's headers. Otherwise, your table's headers will display _____ that you can change into what you want.
3. When you create a table, each column's header row is _____ set up so that you can quickly filter or _____ your data. Once the table is created, the Table Tools become available, and the Ribbon shows a _____ tab. You can make changes to your table using the tools on this tab

Exercise 5

Identify the terms being describe in the sentence. Write your answer on the space provided.

- _____ 1. This means "What You See Is What You Get."
- _____ 2. This is used to copy, create, delete, and rename files and/or directories.
- _____ 3. This places characters in between letters or words.
- _____ 4. This prints what is typed on the screen onto paper.
- _____ 5. This gives a list of words that have the same meaning and can replace a selected word.
- _____ 6. This changes text by deleting parts of it, typing over it, or inserting more text.
- _____ 7. Once the text reaches the end of a line, this moves the cursor to the beginning of the next line.
- _____ 8. This is used to find words.
- _____ 9. This checks if the words in the document are correctly spelled. Those that are misspelled are highlighted with a wavy, red line.
- _____ 10. This pastes graphics like clip art or another file onto your page.



LESSON OUTPUT

Using any presentation software of your choice, make a slideshow that shows the uses of the different kinds of productivity software discussed in the lesson. You may design the slideshow in any way that you want.

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The slideshow clearly shows and presents all the information needed, with extra information all throughout.	The slideshow clearly shows and presents the information needed, with extra information placed at selected points.	The slideshow shows the information needed, with no extra information.	The slideshow only repeats the information as presented in this lesson.	The slideshow only presents a few pieces of information.	
2. Creativity	The slideshow is well-designed, and has animations and other audiovisual enhancements to complement the content.	The slideshow is well-designed, and has visual enhancements to complement the content.	The slideshow used design templates and has no complementing illustrations.	The slideshow did not use design templates but had a general sense of design in it.	The slideshow only has text, with no design enhancements.	
3. Promptness	The output was completed and submitted two or more days ahead of the given deadline.	The output was completed and submitted one day ahead of the given deadline.	The output was completed and submitted by the given deadline.	The output was completed and submitted one to two days after the given deadline.	The output was completed and submitted three days after the given deadline.	
TOTAL						

Lesson 3

Creating Product Knowledge Advertisements Using Productivity Tools

TRIVIA

Do you know why there are so many advertisements in newspapers? Advertisements are a main source of income for media companies – newspapers included. Did you know that a colored advertisement taking up an entire page in a national newspaper in the Philippines can cost nearly 400,000 pesos for a single Sunday issue?

Source: https://www.inquirer.com.ph/advertise/display_ads



LEARNING OUTCOMES

At the end of the lesson, you are expected to be able to:

1. Define product knowledge advertisement.
2. Identify various productivity tools for product awareness.
3. Create content for product awareness.



ENGAGE

Ask your family members about their favorite advertisements. Try looking up examples of those ads online.



EXPLORE

Identification

Unscramble the letters to reveal the mystery word.

1. SIDETVMRTNAEE
2. AOYULT
3. NAGAPICM
4. LEFRY
5. ALEIDEHN



RESEARCH

Research about how print ads were made BEFORE computers were used in graphic design.



EXPLAIN

Definition of terms

Advertisements – messages that offer a product or a service to people who would want to buy or avail of it, using images and/or a few words.

Layout – a design plan in which elements such as text and pictures are arranged in a page.

Campaign – an organized set of actions to achieve a goal or persuade people to do something.

Copy – the text element that adds details that could not be included in the headline or could not be shown in the visual.



These are only a few of the **advertisements** that you are likely to see in your neighborhood. What do you notice about them?

Aside from the impression that they were likely made in a hurry by hand using materials found at home, these advertisements, or **ads**, all have one thing in common—they are short, but the message that each of them carries is clear and

easy to understand. If you walk by those signs, you would immediately know that you can buy prepaid load from one and ice from the other. People looking for a place to live in will know that a vacant room is available with the third sign. In short, they can be considered as **product knowledge advertisements**, because they are introducing a product or service to people who might want to buy or avail of the service.

The idea behind ads, or advertisements is simple. They are **messages that offer a product or a service to people who would want to buy it, using images and/or as few words and as little time as possible**. This is because people spend only a few seconds looking at them – if they get noticed at all.

Businesses need advertising in order to promote and sell their products and services to consumers in order for them to make money; otherwise, people will not buy a product or use a service if they don't know that it exists. This is why big companies spend lots of money when making advertising efforts, or **advertising campaigns** (pronounced *cam-pains*). They know that if enough people learn about their product, there's a good chance that some might want to try it for themselves.

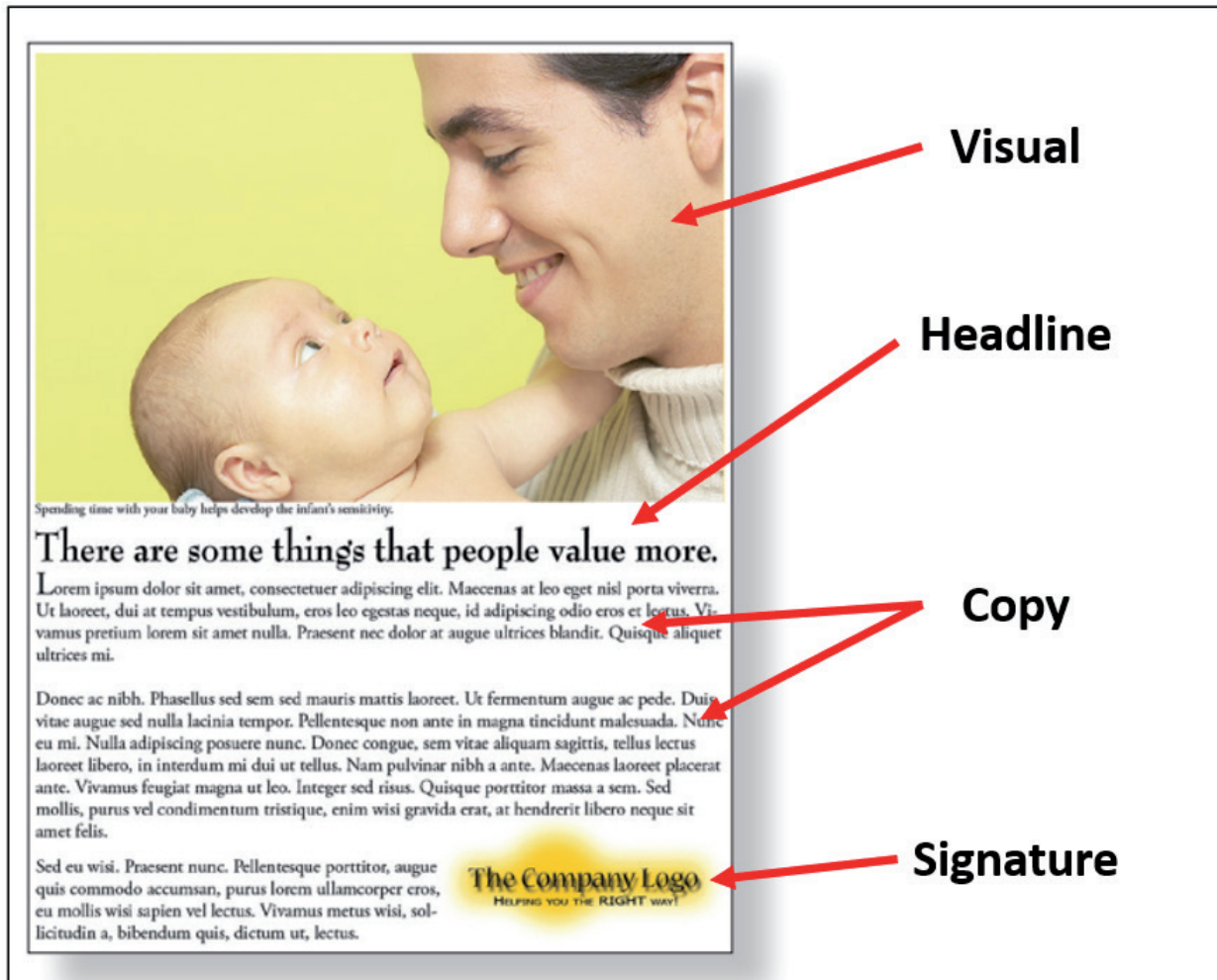
Designing an Advertisement

Every kind of media that has been created has been used for advertising purposes. Printed advertisements were created when printing became commonplace, and the same thing happened when radio, television, and the Internet were developed. Nowadays, it is common to have advertisements for a campaign present in every medium, but there will always be print ads in some form or another—whether as posters, banners, brochures or flyers.

In this section, we will learn about the common parts of a print ad. Afterwards, we'll try our hand at designing one ourselves.

Every print ad has a design plan called a **layout**. Layouts allow the ad designer to arrange the elements of an ad in order to create balance between them and make sure that the most important ones get noticed first.

The **visual** is the biggest graphic element in a print ad. It is used to grab people's



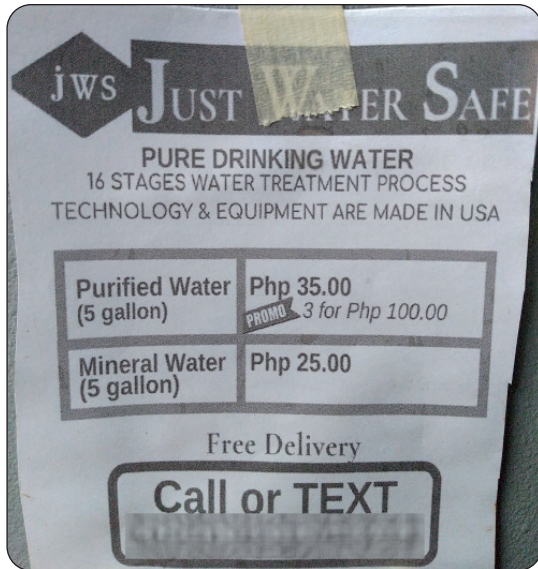
attention and get the ad's message across. It can also be used to tell something about the product being sold. For example, if you see an ad with a visual of a person with a red face and smoke coming out of his ears, there's a good chance that the ad is for a spicy kind of food. A designer's creativity is the most important part of making a visual, because the visual doesn't always need to be a picture; some visuals are in the form of text styled as word art, or logos.

The **headline** and **copy** are the text elements of an advertisement. The **headline** basically has the same use as the visual, in that it also grabs the attention of the ad viewer and leads them to look at the other parts of the ad. On the other hand, the **copy** is the text element that usually adds details that could not be included in the headline, or the visual could not show.

There are two more parts of a print ad, but they can be left out of a layout, depending

on the situation. The **signature line**, if present, lists the advertiser's name and contact information. Meanwhile, **captions** are phrases or sentences used to explain graphical information, like graphs, charts, tables and other drawings. They can also be used to introduce people in photos, or relate drawings to the copy.

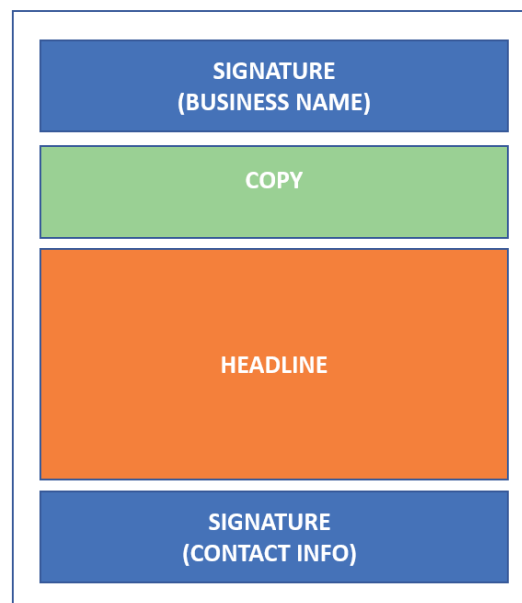
Study this sample ad for a community water delivery service. What can you say about it?



This ad comes in the form of a small flyer that gets taped to house gates in a neighborhood. Despite its small size, it manages to fit a lot of information into its layout—the logo of the service and its contact number, the products that it offers, and even a little bit of copy telling potential customers about the treatment process it does to its water products. If you look at the flyer's design, you'll notice that its layout can be divided into four blocks.

The designer of the ad spaced out the blocks so that the content doesn't feel heavy on one side, but stacked neatly on top of each other.

The designer also made sure that while the flyer had all the important details, there is enough space around each of the elements so that it doesn't look crowded. This is done by making sure that there is enough empty, or **white space** around each element.



While the ad does not have illustrations, it highlights the most important information, which are the prices of purified water and the business's contact number using thick boxes. This makes them much more noticeable to viewers, serving as the visual of the ad, but in text form.

Based on our example, we can now name some of the basic principles to remember in creating a print ad.

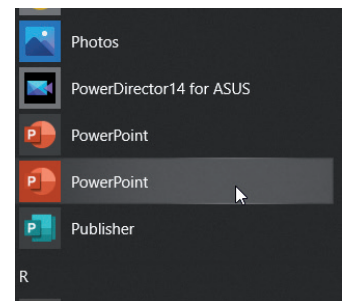
1. Always put the most important information where it can be easily seen.
2. Include complete information whenever possible.
3. Your visual can be pictures, or it can be text.
4. Keep your designs balanced.
5. Empty space can help in making your design feel less cluttered.

Making Simple Print Ads Using Productivity Software

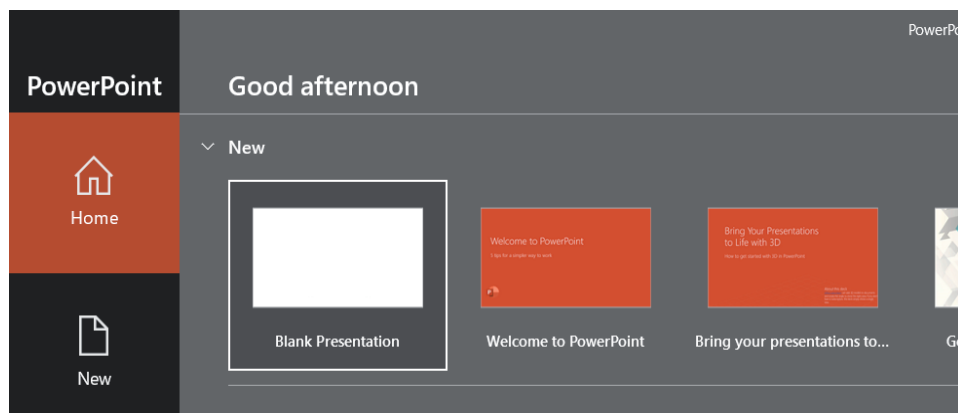
After learning about the basics of making print ads, let's make some simple flyers using productivity software.

You may have had experience using Microsoft PowerPoint to make slideshows in your Technology lessons. For this lesson, we will use PowerPoint to make flyers to advertise something.

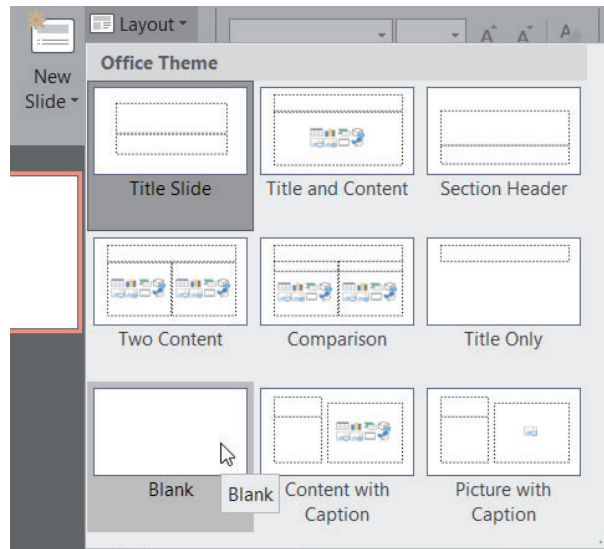
Let's begin designing by opening PowerPoint from the All Applications menu. (Your computer may have different apps installed.) Wait for the program to finish loading and show its home screen.



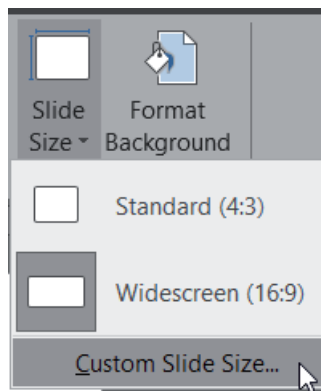
1. Select **Blank Presentation**. An empty slide with two boxes will appear.



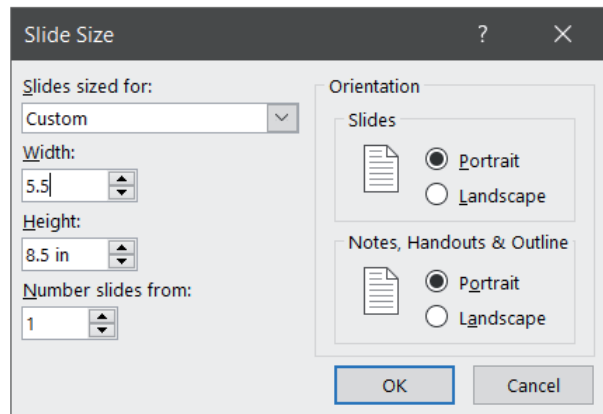
2. Change the slide's layout to "Blank" by clicking the **Layout** button under the **Home** Tab. This will remove the boxes from the slide, leaving a clear working area.



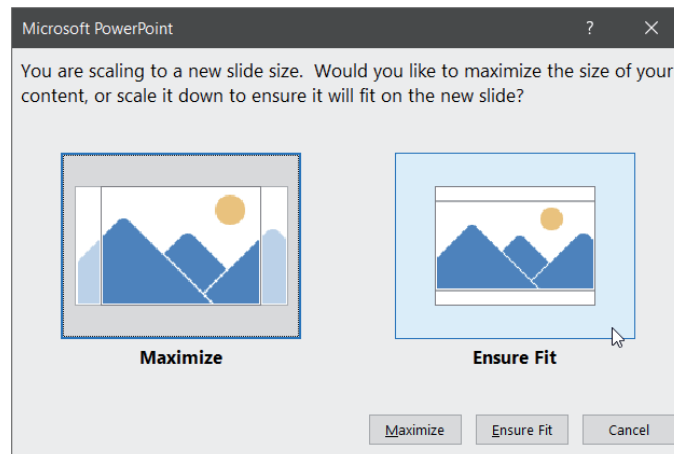
3. Move to the **Design** Tab, then find the **Slide Size** button. Click it to reveal the drop-down, then select the **Custom Slide Size** option.



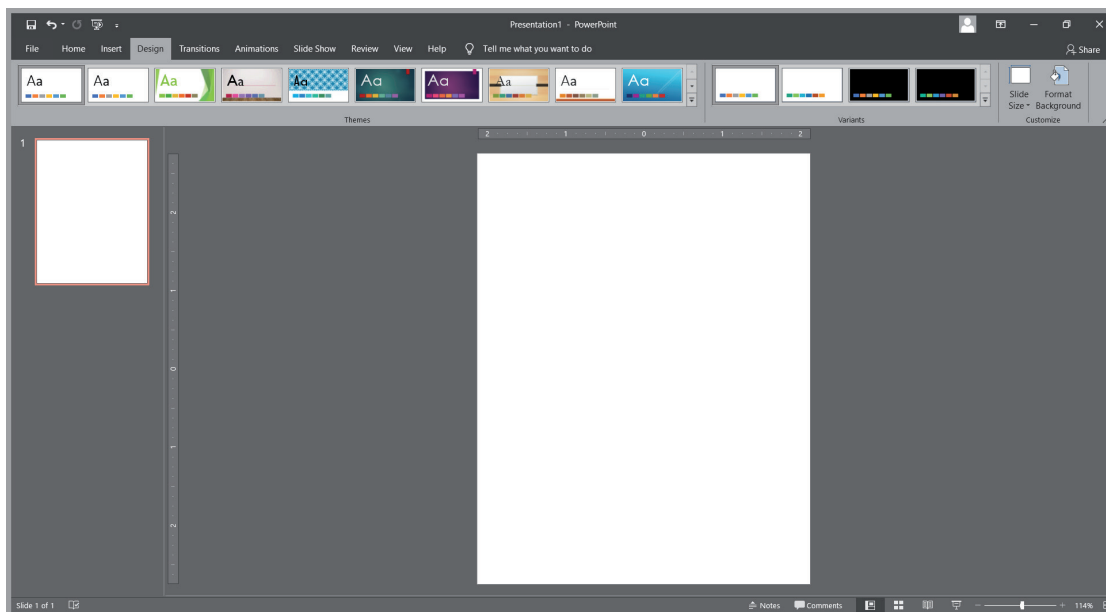
4. In the dialog box, click the **Slides sized for** dropdown and select **Custom**. Put in 8.25 in (inches) as the height, and 5.5 inches as the width. This will result in the slide, and therefore, the flyer, having a size of a half-sheet of short, or letter-size, bond paper.



5. In the next dialog box, select **Ensure Fit**.

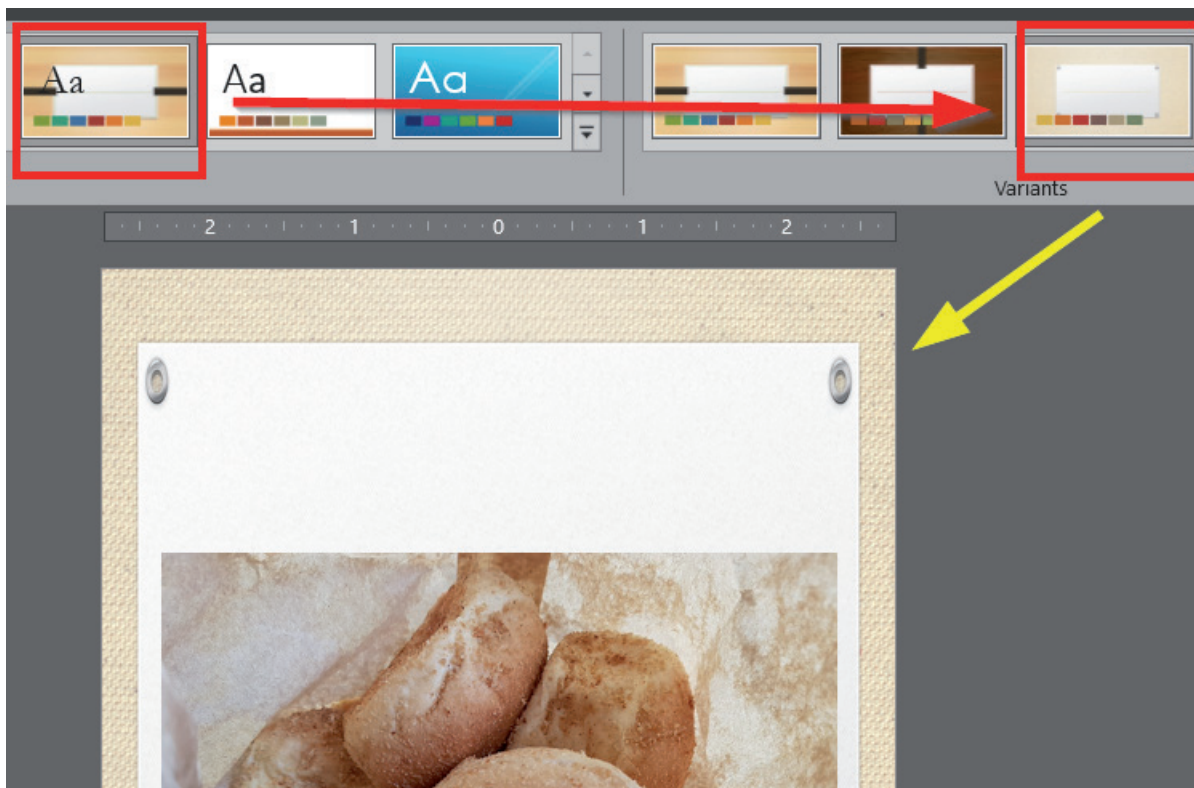


6. PowerPoint's working area will now change to the new slide size. We can now start designing the flyer.



For our example, let's make a flyer promoting a neighborhood bakery and coffee shop.

We added a quick design by choosing a **Theme** from the **Design** tab, then picking a **Variant**. For our visual, we inserted a picture of some pandesal bread, which is the bakery's top product.



The logo was made using WordArt. This allows you to change the look of the logo easily.

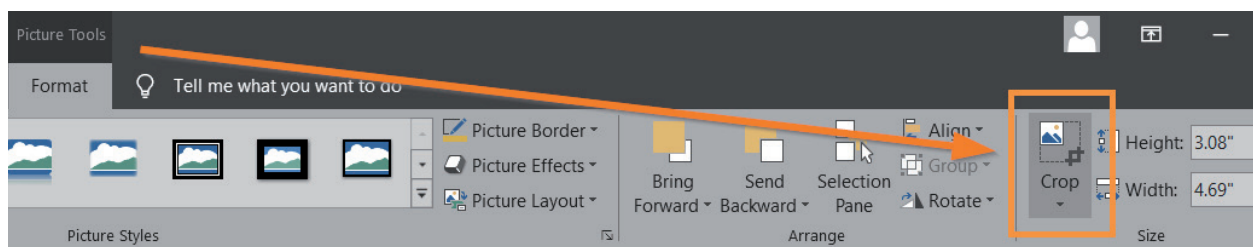


A text box was added to hold the copy and the contact information for the store.

The contact information is typed in alongside the copy, but the text is formatted to be bigger and in boldface to make it stand out.



We adjusted the picture slightly in order to insert another text box for the address of the shop. This is done by selecting the picture, then clicking the **Crop** button, which is found under **Format** tab under the **Picture Tools** menu.



This is how the flyer looks when finished.



We can now export it as a JPEG image file, or even as a PDF. (File > Save as > choose between .JPEG or .PDF). The flyer will be saved in the desired format, in the size that you specified.

Remember to keep a copy of the file in the .pptx format so that you can change the different elements of the flyer whenever you need to.



EXERCISES

Exercise 1

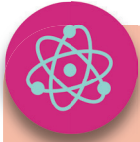
True or False

- _____ 1. Any message designed to offer a product or a service to people can be called an advertisement.
- _____ 2. Businesses do not need advertising to sell their products.
- _____ 3. The design plan for a print ad is called a layout.
- _____ 4. The visual for a print ad always needs to be a picture.
- _____ 5. The headline can serve as the visual for an advertisement.

Exercise 2

Identification

- _____ 1. This part of an advertisement contains additional details.
- _____ 2. This part contains the name and contact information of the advertiser.
- _____ 3. This is the term for the empty spaces around print ad elements.
- _____ 4. This is the term for advertising efforts done by a company.
- _____ 5. This function is used to adjust a picture's size



SUMMARY

Product knowledge advertisements, or simply advertisements or ads, are messages that offer a product or service to people who would want to buy it. Ads deliver their message using pictures or as few words as possible, because people only spend seconds looking at them. Print ads have several parts that serve specific functions in the selling process.



LESSON OUTPUT

Can you create advertising materials using productivity software based on the steps you have learned in this lesson? Imagine that you own a business. Design a flyer advertising your business or your main product or service using PowerPoint or a similar presentation software. The flyer can have the same measurements as the example shown in the lesson, or it can be smaller.

- The student is free to create the design of the flyer to their liking.
- The student must submit a printout of the flyer to the teacher, plus a PDF copy.

Lesson Output Rubrics

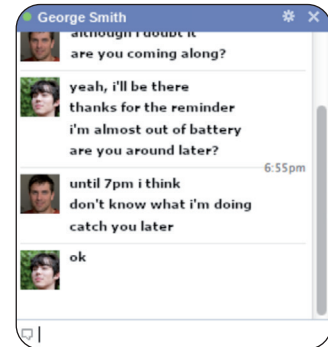
CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The flyer has all the important components present, has optional parts included, and has graphics to enhance its look.	The flyer has the important components as well as optional parts.	The flyer has the important components and some details included.	The flyer only has important components included.	The flyer only has one or two components.	
2. Creativity	The flyer is well-designed, has a strong visual and/or headline, and also has balance of content and correct use of white space.	The flyer is well designed, has a strong visual and or/ headline but is cluttered and/ or unbalanced.	The flyer uses a simple visual/ headline, and detailed copy	The flyer only has basic copy.	The flyer has text but has no structure.	
3. Promptness	The output was completed and submitted two or more days ahead of the given deadline.	The output was completed and submitted one day ahead of the given deadline.	The output was completed and submitted by the given deadline.	The output was completed and submitted one to two days after the given deadline.	The output was completed and submitted three days after the given deadline.	
TOTAL						

Lesson 4

Media File Sharing, Discussion Forum and Chat

TRIVIA

Did you know that Facebook Messenger was originally developed as Facebook Chat in 2008? Two years later, Facebook redesigned and rebuilt Chat, and in the following year, released it as a standalone application for the iOS and Android mobile platforms.



LEARNING OUTCOMES

At the end of the lesson, you are expected to be able to:

1. Discuss media file sharing.
2. Explain what a discussion forum and chat are.
3. Explain the rules in joining a discussion forum and chat.
4. Determine the appropriate search engine for gathering information.



ENGAGE

Word Search. Find the following listed words.

Clue: Words can be diagonal, reverse vertical/horizontal, reverse diagonal, up, or down in the grid.

Chat
Internet
Newsgroup
Tablet

Computer
IRC
Post
Forum

Messaging
Smartphone

Z	R	L	V	C	K	R	G	O	Z	J	D	D	X	B
P	U	O	R	G	S	W	E	N	R	W	R	F	K	M
T	N	B	Y	S	M	A	R	T	P	H	O	N	E	W
J	O	V	T	Z	V	X	S	F	U	Z	M	Q	M	A
M	J	L	V	F	V	Z	O	F	D	P	Y	O	O	Q
E	F	I	V	Y	L	B	S	J	O	S	M	A	V	A
S	P	N	V	B	F	D	I	F	Y	R	W	O	M	W
S	I	O	I	N	T	E	R	N	E	T	U	I	C	V
A	Z	O	S	S	E	F	L	R	T	N	R	M	G	G
G	E	G	T	T	L	U	H	Z	K	C	O	F	Z	T
I	O	M	V	X	B	E	H	A	U	J	N	M	A	B
N	G	S	D	S	A	M	U	J	O	D	M	H	M	B
G	I	M	X	P	T	I	L	O	J	X	C	O	Q	F
J	E	F	Q	P	U	A	T	B	W	A	I	W	F	W
S	V	H	F	N	B	R	I	B	A	P	R	A	Q	E



EXPLORE

True or False

True or False. Write FORUM if the answer is TRUE and CHAT if the answer is FALSE.

- _____ 1. Websites that let you share your photos online are called image hosting websites or photo sharing services.
- _____ 2. Chat is not a real-time discussion between people.
- _____ 3. You need an Internet connection to send a chat message and post a question in the discussion forum.
- _____ 4. A discussion forum is a type of board where you can post or leave any message or question. Google and Facebook are some of the examples of websites that give this kind of service.
- _____ 5. Sharing files which are copyrighted by someone else breaks copyright laws.



RESEARCH

1. What is media file sharing?
2. What is discussion forum?
3. What is chat?



EXPLAIN

Definition of terms

Image hosting websites or **photo sharing services** are the sites that let you share your photos online.

Discussion forum is a type of board where you can post or leave any message or question.

Chat is a real time discussion between two or more people.

Internet relay chat (IRC) protocol allows users to chat with other users in real time either privately or within a group through discussion groups called channels or group chat.

Sharing Online

Digital photos, along with computer programs, videos, documents, music, or electronic books are all forms of digitally stored information. Distributing or giving access to digitally stored information is known as file sharing. Sharing files which are copyrighted by someone else breaks copyright laws.

There are several websites that let users share only photos, or only videos, or only music. Some allow both photos and videos, and some allow all these forms to be shared in the same online space.

Sharing Images Online

Websites that let you share your photos online are called **image hosting websites** or **photo sharing services**. These websites make it safe, fun, simple, and easy to collect, organize, and keep your digital photos.

To use photo sharing services, you only need to find the file or files you want to upload. Some image hosts let you upload more than one file at once, while others let you submit only one compressed file containing several pictures. After pressing the Submit button, your file will be uploaded to the image host's server.

Sharing Video Online

With video recording being a standard feature in mobile phones, and a growing number of users producing more and more videos, many people face the problem of where and how to store them. Making a video on DVD to show family and friends may not be suitable anymore for the ever-growing number of camera phones already connected to the Internet.

However, broadband Internet connections are perfectly suited to the quality and quantity of videos shot on mobile phones. Since most people do not own unlimited Web space even on paid accounts, their videos are now stored on sites which have **user-generated video content hosting**.

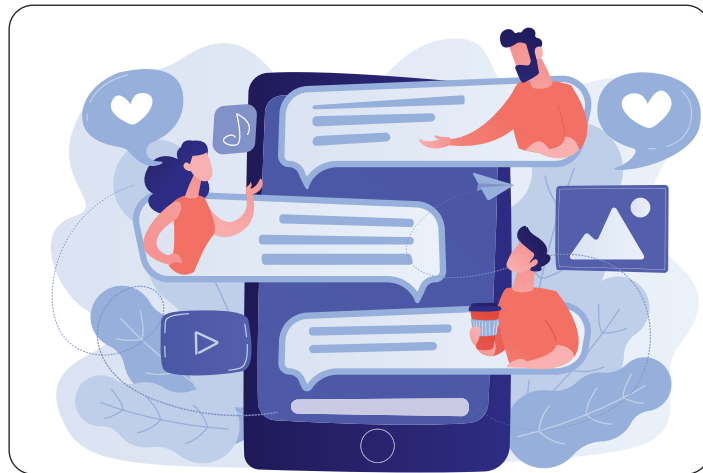
Through these **video hosting websites**, you and your friends or family have a common place to store your videos. You can also upload, embed, and/or stream your video through a Web browser with little or no programming knowledge needed, and save on bandwidth costs while you're at it.

Social Networking and File Sharing

Facebook is a social networking service that offers a blog module to its users. As a member, you can upload videos and host these on your own pages rather than on third-party pages. You can also add music from major sites, notably YouTube or Spotify. An unlimited number of photos can also be uploaded into your albums, which are hosted in the site's photo album.

Discussion Forum

A discussion forum is a type of board where you can post or leave any message or question. Google Classroom is a modern example of a discussion board, because its users can post messages or questions to be answered by other users. Some social networks like Facebook have features that are similar to the discussion board system. The advantage of this kind of forum is that any member can answer or ask questions anytime and anywhere. In a discussion forum there will be a moderator who will filter the information and questions that will be posted in the forum.



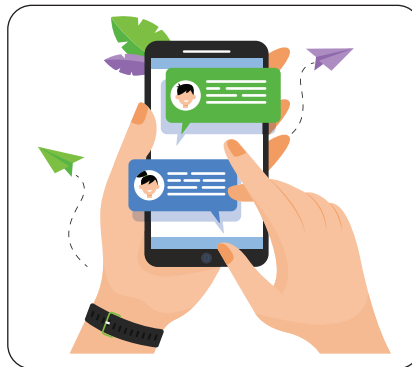
Newsgroups, Mailing Lists, and Internet Forums

A newsgroup is an online public bulletin board where users post messages on a particular subject. The messages are sent to a central Internet site and redistributed through Usenet, a worldwide network of news discussion groups. To access news, users need a newsreader client software or something similar. A message posted on a newsgroup and the string of replies to that message is called a thread.

A mailing list is similar to a newsgroup because it is a service through which people with similar interests can discuss certain issues. Interested people can join the list and receive each other's messages through e-mails sent to all the members on the mailing list. Internet forums or message boards can be described as the Web version of newsgroups or mailing lists.

Chat

Chat is a real time discussion between two or more people. Unlike a forum, you can respond to chat messages immediately because the people who chat each other are on the application, online, and currently in front of their laptop, tablet, smartphone, or computer that is connected to the Internet.



Internet Relay Chat (IRC) and Instant Messaging

The Internet relay chat (IRC) protocol allows users to chat with other users in real time either privately or within a group through discussion groups called channels or group chat.

Instant messaging is very similar to IRC and also allows users to communicate in real time. Instant messaging clients have the capability to know the real-time online presence of other users.

Rules and Safety Precautions in Joining a Discussion Forum and Chat

1. Make sure what you say in the chat or forum will not hurt anyone.
2. Make sure the question or answer is related in the thread or statement you are commenting on. You should know where to post because each person has a different thread.
3. Do not post any document or file that you do not own.
4. Do not post sensitive and confidential information.
5. Make it a habit to read the previous questions and answers. This will prevent questions that have been asked and answered before from being posted again.

Tools and Materials Needed in Joining a Discussion Forum and Chat

1. Internet Connection

In joining a discussion forum and chat, the primary tool we need is an Internet connection. We will not be able to post and chat if we did not have an Internet connection.



2. Computer, Laptop, Tablet or Smartphone

We need a computer, laptop, tablet, or smartphone to join to an online discussion in a forum and chat. These tools will help us connect with other people online.



Appropriate Search Engine for Gathering Information

Have you ever tried searching for information on the World Wide Web? If you have, you probably used either Google or Yahoo! Search. You likely just typed what you were looking for in the search box, then clicked on Search, and voila, back came a list of Web pages that mentioned the words you typed into the search box. That listing is your **search engine results page (SERP)**, and you probably clicked on the very first link on that list.

How Do Search Engines Work?

Search engines don't really search the World Wide Web directly. Each one searches a database of Web pages that it has already harvested and stored.

When you use a search engine, it is only when you click on the links provided in the results page that you retrieve the current version of the Web page.

The search engine results pages usually include paid advertisements relevant to the search as well as relevant third-party pages. The organic listings are the results from the search engine's own database.

Using search engines, Internet users can find what they are looking for in a three-stage process: Web crawling, then indexing, and then searching.

The following are the top 5 search engines in 2021:

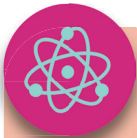
1. Google
2. Bing
3. Baidu
4. Yahoo!
5. Yandex

Search Engine Optimization

When you do Internet searches, your search engine responds with a list of relevant finds. The order of the list is the ranking, and this is quite important to websites, as searchers tend to visit only the top sites. Think about it, with a thousand different items on the list, wouldn't you tend to click on the top link first to check it out? And, once you find what you need, would you bother to click the other links lower on the results page?

Search engine optimization (SEO) considers how search engines work and what people search for. The ranking of a website in search engine listings is done either through "natural" or through "unpaid" (organic or algorithmic) search results.

This is different from **search engine marketing (SEM)**, where the search engine company charges websites so they can be included in any search, in a procedure called paid inclusion.



SUMMARY

Digital photos, along with computer programs, videos, documents, music, or electronic books are all forms of digitally stored information. Websites that let you share your photos online are called image hosting websites or photo sharing services. Discussion forum is a type of board where you can post or leave any message or question. Chat is a real time discussion between two or more people.



EXERCISES

Exercise 1

Enumeration. Write the answers on the space provided.

Give the five (5) rules and safety precautions in joining a discussion forum and chat.

1. _____
2. _____
3. _____
4. _____
5. _____

Give five (5) tools and materials needed in joining a discussion forum and chat.

1. _____
2. _____
3. _____
4. _____
5. _____

Give five (5) examples of search engines.

1. _____
2. _____
3. _____
4. _____
5. _____

Exercise 2

Fill in the blanks. Choose the correct answer inside the rectangle and write the correct answer on the space provided.

Facebook	immediately	file sharing	Internet	real
digitally stored	board	answer	moderator	copyright

1. Digital photos, along with computer programs, videos, documents, music, or electronic books are all forms of _____ information. Distributing or giving access to digitally stored information is known as _____. Sharing files which are copyrighted by someone else, however, breaks _____ laws.
2. Chat is a _____ time discussion between two or more people. Unlike in a forum, you can respond to chat _____ because the people who chat each other are online or currently in front of their laptop, tablet, smartphone, or computer that is connected to the _____.
3. Discussion forum is a type of _____ where you can post or leave any message or question. Google and _____ are some of the examples of a website that gives this kind of service. The advantage of this kind of forum is that any member can _____ or ask questions anytime and anywhere. In a discussion form, there will be a _____ that will filter the information and questions that will be posted in the forum.



LESSON OUTPUT

The students will create a simple PowerPoint presentation about search engines. The content must have the most used search engine in the current year, its history and developer/s. The presentation should have a minimum of five (5) slides with different transitions and animations.

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The output is what is desired, is free of mistakes, is neatly or clearly presented and works as expected.	The output is free of mistakes and is what is desired; works as expected, but the presentation isn't neat or clear.	The output is free of mistakes and is what is desired; works as expected, but the presentation isn't neat or clear.	The output is what is desired; works as expected, but there are some mistakes visible; the presentation is messy.	The output isn't what is desired; doesn't work as expected.	
2. Creativity	The approach of the student is unique and also fulfills the requirements of the project.	The project's requirements are met, and the student took some elements from several existing sources, such as that from other people or the Internet, and built on these.	The project's requirements are met, and the student took some elements from one existing source, such as a person or from the Internet, and built on these.	Some of the project's requirements aren't met.	The project's requirements are not met, and/or the student directly copied (plagiarized) their project from another source, such as from a person or from the Internet.	
3. Promptness	The project was completed 2 days ahead of the given deadline.	The project was completed 1 day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed 1 day after the given deadline.	The project was completed 2 or more days after the given deadline.	

TOTAL

Agriculture

Livestock (Introduction)



Tools and Equipment



Taking Care of Livestock



Fertilizers



Lesson 1

Livestock

TRIVIA

Did you know that chicken is one of the top kinds of livestock here in the Philippines apart from carabao, cattle, swine, ducks, and goat? Filipinos consume plenty of chicken, which is not surprising as fried chicken can be ordered just about anywhere – whether it is at a fast food restaurant or a vendor by the side of a busy road.



LEARNING OUTCOMES

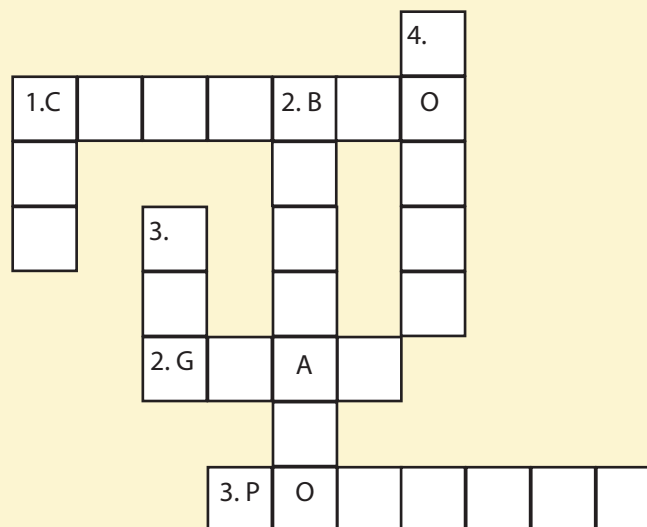
At the end of the lesson, you are expected to be able to:

1. Define what livestock is.
2. Identify the different kinds of livestock in the Philippines.
3. Know the characteristics of each type of livestock.



ENGAGE

Crossword Puzzle. Use the letter clues in the crossword puzzle to complete the name of each animal described. Write your answers in the blank after each description.



Down:

1. Gives milk
2. Another name for carabao
3. Meat is used for *lechon*
4. Used in racing

Across:

1. Helps a farmer till soil
2. Meat is used for making *caldereta*
3. Males of this livestock are used in cock derbies



EXPLORE

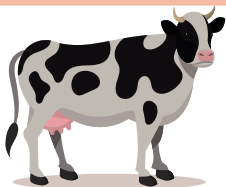
True or False. Write your answer on the space provided.

- _____ 1. All animals are considered livestock.
- _____ 2. Livestock can be a source of income.
- _____ 3. All animals are fed with grass.
- _____ 4. Meat is a main source of carbohydrates for humans.
- _____ 5. You can raise livestock anywhere you want.



RESEARCH

Research the characteristics of the following animals. Note your answer in the space opposite the picture.





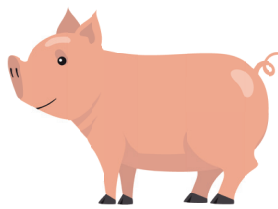
EXPLAIN

From 1986 to 2000, the main sources of revenue in Philippine agriculture were livestock and poultry. Farms in the rural areas raise livestock, as do smallholders—people who are involved in agriculture, but whose agricultural land is smaller than that of a farm. These smallholders usually consist of households which raise poultry and livestock for their own consumption as well as to sell to others. As livestock cannot be raised everywhere, such as in private villages, it is best, if you plan to do so, to seek permission from your neighbors as well as from the local government.

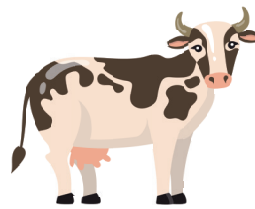
Livestock – agricultural animals which produce such food as meat, eggs and milk, as well as fur, leather and wool for clothing.

Livestock in the Philippines

Some animals are our pets and playmates, but livestock generally aren't. Livestock provide us with food as well as job opportunities related to raising these. The Philippines is very rich in livestock, such as:



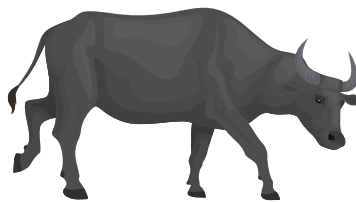
Pig



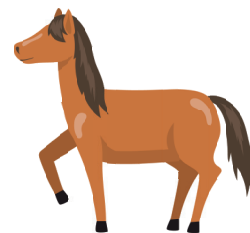
Cow



Goat

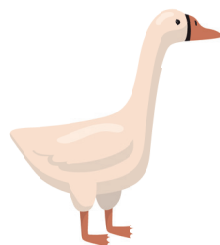


Carabao

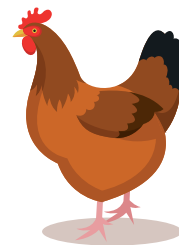


Horse

Poultry

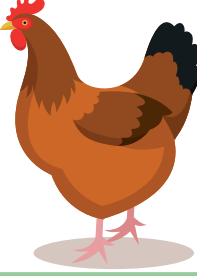
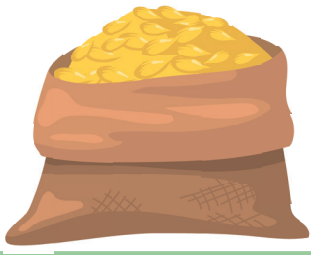
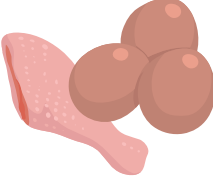
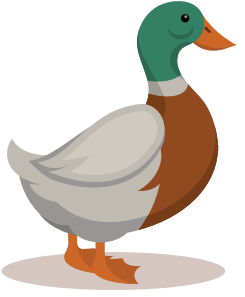
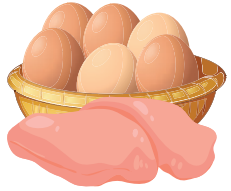
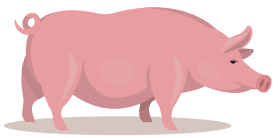
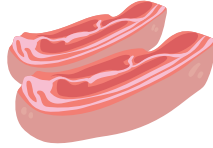
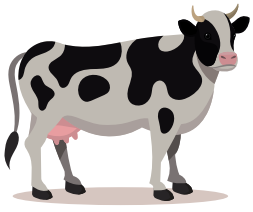


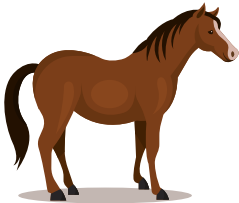
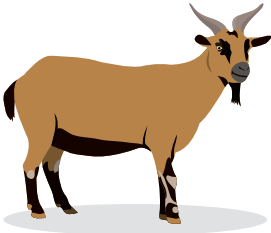
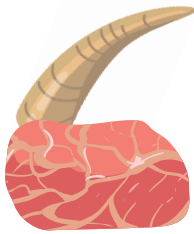
Duck



Chicken

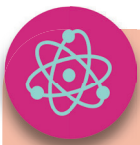
Characteristics of Different Kinds of Livestock

Kind of Livestock	Description	Food	Produces
Chicken 	Is the easiest kind of livestock to raise.	Corn, Wheat, Peas 	Eggs, Meat 
Duck 	Can be raised in the backyard.	Cooked rice, Grapes (cut into small pieces), Cracked corn Peas, Pellets for ducks 	Eggs (balut), Meat 
Pig 	Must be raised in an open area meters away from neighbors.	All kinds of leftover food, Pig pellets 	Meat 
Cow 	Needs a lot of land to graze in.	Grass, Hay, Feed 	Milk, Meat, Ornaments (horn, bones) 

Carabao 	The Philippines' national animal. It is also the helper of most farmers, helping to till the land.	Grass Vegetables 	Milk Meat Ornaments (horn, bones) 
Horse 	Horses help people for both work and for leisure.	Grass Combinations of different fruits and vegetables 	Meat 
Goat 	The number of goats in the Philippines is increasing because it is one of the easiest kinds of livestock to raise.	Grass Tree leaves Weeds Other agricultural products 	Meat Meat Ornaments (horn) 

In Business

Raising livestock is not easy, since you are responsible for raising the animal. You have to consider the health of the animal as well as that of your neighbors, since animals do produce droppings. You need to be trained on how to raise livestock properly, as well as how you can make a business out of raising and selling these. Finally, you also need to know if your personality suits that of being in a livestock raising business, as you will be dealing directly with animals.



SUMMARY

There are different kinds of livestock, ranging from goats to cows, each of which have their own needs and their own products to fill human needs. Should you go into business raising and selling livestock, you need to be well trained on how to do so, as well as have the aptitude for it.



EXERCISES

Exercise 1

Multiple choice. Encircle the correct answer.

1. Agricultural animals which provide for human needs.
 - a. Livestock
 - b. Leavestock
 - c. Lifestock
 - d. Animal stock
2. An animal that produces milk for human consumption.
 - a. Chicken
 - b. Cow
 - c. Duck
 - d. Horse
3. Animal that produces eggs.
 - a. Cow
 - b. Goat
 - c. Carabao
 - d. Chicken
4. The animal that is a farmer's partner.
 - a. Goat
 - b. Duck
 - c. Carabao
 - d. Pig
5. Which part of the carabao can be used to make ornaments?
 - a. Feet
 - b. Horn
 - c. Tail
 - d. Leg

Exercise 2

Identification. Identify what is being described in the sentence.

- _____ 1. The national animal of the Philippines.
- _____ 2. Animal that can eat all kinds of leftover food.
- _____ 3. This animal can be used for leisure.
- _____ 4. The animal that produces *balut*.
- _____ 5. An animal that eats tree leaves and weeds.



LESSON OUTPUT

Create a short, five-minute presentation on the different types of livestock in the Philippines. Include any other information that you think might be interesting to your classmates.

You will have five days to create the presentation.

Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The presentation included all livestock given in this lesson, as well as at least four different kinds of information, e.g., the livestock population present in the Philippines.	The presentation included all livestock given in this lesson, as well as three different kinds of information, e.g., specific areas where pigs are being raised.	The presentation included all livestock given in this lesson, as well as two different kinds of information, e.g., number of the types of chickens being bred.	The presentation included all livestock given in this lesson, as well as one additional information, e.g., a law relating to raising livestock.	The presentation did not include any livestock given in this lesson, nor was there additional information included.	
2. Creativity	The student's output was unique and based on firsthand research, i.e., he/she interviewed an authority on the topic.	The student's output was in their own words and was based on secondhand content researched on the project.	The student's output was essentially rephrased from secondhand research material.	The student conducted research but essentially copy-pasted directly from another source.	The student did not attempt to research for the project.	
3. Promptness	The project was completed 2 days ahead of the given deadline.	The project was completed 1 day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed 1 day after the given deadline.	The project was completed more than one day after the given deadline.	

TOTAL

Lesson 2

Tools and Equipment

TRIVIA

If you've baked before, you know that the measuring cup is used to measure ingredients.

Did you know that measuring cups are also used when raising livestock?

The measuring cup is just one of the basic tools and equipment used to provide food and water to livestock, as it can make the work of feeding animals easy, fast and accurate. The basic tools for livestock are feeding tools and equipment for delivering water.

Weighing scales are also used to weigh animals and the exact amount of food needed for livestock to get the right weight for their age.

Livestock also need proper ventilation and lighting. Their area must be maintained for them to grow well and be productive.



LEARNING OUTCOMES

At the end of the lesson, you are expected to:

1. Identify the basic agricultural tools used by farmers to raise livestock.
2. Differentiate between various kinds of livestock.
3. Identify the different tools and equipment used on different kinds of livestock.



ENGAGE

Fill the missing letter to complete the word or words.

1. _ I V E _ T _ C K
2. F _ R _
3. S _ O V _ L
4. W _ E E _ B _ R _ O W
5. _ E _ D I _ G B _ T T _ E



EXPLORE

The following pictures show some examples of livestock farming. Name the tools and equipment present in each picture.



RESEARCH

Research the following:

1. The tools needed to feed chickens.
2. The equipment used to clean the surroundings in a cow farm.
3. Why it is necessary to trim the sole of an animal.



EXPLAIN

Tools and equipment are used to take care of the different kinds of livestock. These help farmers run their particular farms. These are the basic agricultural tools and equipment used for different kinds of livestock.

As a note, when using the following tools and equipment described here, it is best that you get help from adults to prevent accidents on your part, danger to animal's parts and wasting materials like animal feed and medicine.

These are the tools and equipment needed for the different kinds of livestock and farms.

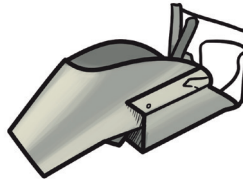
- A. **Pig Farm, or Piggery** – a farm which raises pigs as livestock. Pigs are the source of pork, and its internal organs can be cooked for food.



1. **Piglet teeth cutter** – for cutting pig teeth. This is best done by experts.



2. **Water nipple** – used to give pigs access to fresh drinking water.



3. **Vaccination gun** – used to vaccinate pigs. This is used by veterinarians.



4. **Hose** – used to easily clean the areas where the pigs are.



5. **Shovel** – used to shovel pig feed and pig wastes.



6. **Farrowing pen** – this is used when a sow gives birth to piglets. It is designed to lessen the risk of piglets being trampled and crushed if the sow lies on them. It also provides the right temperature for piglets while keeping the sows cool.



- B. **Cow or Dairy Farm** – a farm where cows are raised, both for food as well as for milk.

1. **Calf feeding bucket** – this is used when calves drink milk.



2. **Calf milk feeding bottle** – this is also used when calves drink milk.



3. **Vaccination gun** – used to vaccinate cows. This is used by veterinarians.



4. **Expansion vaginal device** – used to prepare the cow for mating. This is used by experts and veterinarians.



5. **Hoof trimming tools for cows** – used to trim cows' hooves. The hoof is the tip of a cow's toe and needs to be trimmed every now and then to avoid serious illnesses like ulcers, abscesses (maga), white line lesions (sugat) and double sole (talampakan). This is used by experts.

Manual Tools



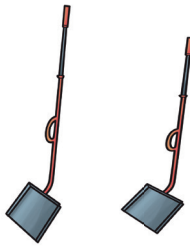
Grinder



6. **Cow milking machine** – used to easily extract milk from a cow.



7. **Cow dung picker** – a specialized type of shovel used to easily pick up the dung, or waste, of cattle.



8. **Calf transporter** – used to transport calves from one place to another.



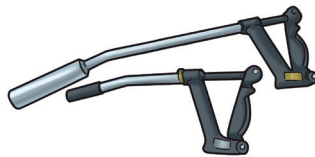
- C. **Carabao farm** – a farm where carabaos are raised, both for food and as helpers in rice fields.



1. **Drenching gun** – used to easily give liquid medicines to carabaos.



2. **Bolus gun/dosing gun** – used to easily give solid medicines to carabaos.



3. **Shovel** – used to pick up and carry feed as well as carabao's stool or waste.



4. **Rake** – used to rake and clean dry leaves in an area.



5. **Water pond** – a pond in the carabao farm where carabaos go to cool down.



6. **Carabao milking machine** – used to extract milk from a carabao. You will need to ask for assistance from an expert to use this.



- D. **Goat farm** – a farm where goats are raised for food and for other purposes.



1. **Clippers** – since animals, such as goats, are prone to getting lice, their hair must be clipped annually using these tools. This is usually done during summer, when the sun can shine directly on their skin, thus keeping lice from growing.



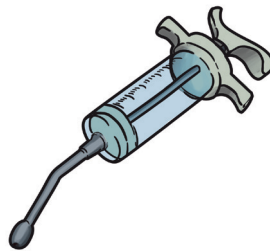
2. **Hoof trimmer** – used to trim the hoof (foot) of a goat about 1 month old.



3. **Rectal thermometer** – used to check the body temperature of an animal like a goat.



4. **Drencher** – this is used to make sure that farm goats swallow any medicine given. It is also used to avoid medicines spilling out.



5. **Measuring cup** – used to measure how much milk a goat produces. It is also used to measure the food that goats eat.



E. **Horse farm** – a farm where horses are raised



1. **Manure or muck fork** – used to move loose materials like loose grass or leaves, as well as feed for horses.



2. **Straw broom** – used to sweep dirt from an area.



3. **Moving dolly** – used to transfer and carry heavy and bulky loads, such as feed sacks, ties of grass and sacks of waste.



4. **Metal rake** – used to remove excess waste or dried materials, as well as to spread grass for feeding.



5. **Portable water pump** – used to pump water from a nearby area to where the animals are, so they can drink.



6. **Wheelbarrow** – used to carry and transfer heavy loads, such as rocks, soil, grass and sacks of feed.



- F. **Poultry farm** – a farm where domestic birds, such as chicken, are raised for their eggs, meat and feathers.



1. **Spade** – used to gather animal droppings.



2. **Shovel** – used to dig and move soil, as well as to remove wastes.



3. **Bolo** – used to cut objects.



4. **Dropping board** – used to collect wastes.



5. **Perches** – used by chicken to sit and rest on.



6. **Feeding troughs** – used to keep chickens from playing with their feed and thus wasting it.



7. **Drinking troughs** – supply chicken with drinking water.



Reminders:

- Seek assistance from experts before using any kind of tool for a particular animal.
- Veterinarians should be the only ones to use those tools used to give animals medicine.
- Electrically operated tools and equipment must be only used by skilled farmers.

In Business

Raising an animal is not easy. As a student, if your parents are into this kind of business, your main task is to help by cleaning the surrounding and by feeding livestock. Well-cared and healthy livestock are good for business and will demand a high price. If they are cared for using improper tools and equipment, their health might suffer and they might not sell well and so your expenses for raising them will amount to nothing.



EXERCISES

Exercise 1

Multiple choice. Encircle the correct answer.

1. These lightweight devices help farmers by making their work easy and fast.
 - a. Tools
 - b. Equipment
 - c. Farm
 - d. Feed
2. This tool is used to cut a pig's teeth.
 - a. Bolo
 - b. Knife
 - c. Piglet teeth cutter
 - d. Wire cutter
3. This tool is used to trim a cow's hoof.
 - a. Cross cut saw
 - b. Claw hammer
 - c. Bolo
 - d. Mallet
4. This supplies chicken with water to drink.
 - a. Glass
 - b. Vup
 - c. Pail
 - d. Drinking trough
5. This equipment is used to carry heavy loads.
 - a. Spade
 - b. Wheelbarrow
 - c. Rake
 - d. Pail

Exercise 2

Matching type. Match the image in column A to its proper description in column B.

A

B

_____ 1.



a. Feeding through

_____ 2.



b. Spade

_____ 3.



c. Measuring cup

_____ 4.



d. Straw broom

_____ 5.



e. Cow milk machine

_____ 6.



f. Feeding bottle

_____ 7.



g. Drinking through

_____ 8.



h. Drenching gun

_____ 9.

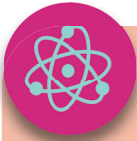


i. Thermometer

_____ 10.



j. Wheelbarrow



SUMMARY

When taking care of animals, as a hobby, for consumption, or for business, tools and equipment are needed. Many tools can be used for different kinds of livestock, such as shovels, but there are some tools which are used only for a specific kind of livestock. Ask the help of experts if you need to use any of these tools and equipment, since not using these properly can be dangerous.



LESSON OUTPUT

The student will find a link to a YouTube video on one of the following:

- Cutting a pig's teeth
- Trimming a cow's hoof
- Extracting milk from carabaos, either manually and electrically
- Clipping goat hair
- Feeding horses

The student will watch and describe the contents of the video on a Word document. The link should be included. Submission will be within 5 days to submit their presentation. The student will be graded according to the following rubrics.

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The document had a video link, the content of which was fully described (what was going on, what tools were being used and both how and why these tools were so used).	The document had a video link, the content of which was adequately described (what was going on, what tools were being used and how or why these tools were so used).	The document had a video link, the content of which was fairly described (what was going on, and what tools were being used).	The document consisted only of the video link, title of the video, and only a brief description of what it is about.	The document only contained a link and a title of the video.	
2. Creativity	The output was unique to the student and the written description was creatively written.	The output was in the student's own words and effectively described the content of the video.	The output was essentially rephrased from second-hand research material.	The output was essentially copy-pasted directly from another source.	The output only contained the video link and a plain title for it.	
3. Promptness	The project was completed 2 or more days ahead of the given deadline.	The project was completed 1 day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed 1 day after the given deadline.	The project was completed 2 or more days after the given deadline.	
TOTAL						

Lesson 3

Taking Care of Livestock

TRIVIA

Did you know that in the Philippines, swine and poultry are the most common livestock? Recently, however, due to various illnesses affecting these common livestock, there have been alternatives introduced, like rabbit and guinea pig meat. These are commonly eaten in other places in the world, but they are not popular in the Philippines. Would you eat rabbit adobo or guinea pig lechon?



LEARNING OUTCOMES

At the end of the lesson, you are expected to:

1. Define livestock care.
2. Identify livestock safety methods.
3. Discuss benefits of caring livestock (poultry and fish)
4. Learn significant knowledges in marketing raised animal/ fish.
5. 5. Demonstrate proper care for different livestock.



ENGAGE

The teacher will present a video about taking care of a particular livestock and the students will list down the methods on proper care for the livestock.

Identify 5 basic needs in taking care of any particular livestock.

1. _____
2. _____
3. _____
4. _____
5. _____



EXPLORE

True or false? Type TRUE if the statement is correct, or FALSE if it is incorrect.

- _____ 1. As a Grade 5 student, are you allowed to inject vaccine into your pet?
- _____ 2. Milk is enough to provide the nutrients needed by any animal.
- _____ 3. Livestock never have fever.
- _____ 4. Animals can drink any kind of water.
- _____ 5. Grass is one of the basic foods of livestock.



RESEARCH

Research the following:

- 1. Proper feeding of pigs
- 2. Process of bathing cattle
- 3. Needs of carabaos to make them healthy



EXPLAIN

Definition of Terms

Livestock caring – the process of applying different methods in making livestock healthy

Manure – animal waste which you use as fertilizer for plants

Colostrum – first drop of milk of a mother after giving birth

Pathogens – microorganism that can cause disease

Pasture – land covered with grass and plants suitable for grazing animals

Carcass – dead body of an animal

Different livestock need specific ways of caring for various situations. This lesson explains how you can take good care of different livestock.

Cattle

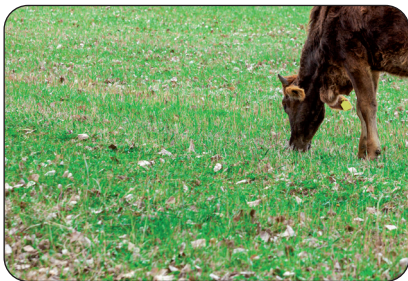
Cattle must be fed with the right feeds, in the right amounts, and according to schedule. The female of this livestock (cows) are a great source of healthy milk.

During the first hour after birth, a calf should be fed with at least 4 liters of colostrum. The nutrition of a calf is important as a calf that is in good health will be able to fend off diseases and its body would also be able to easily absorb essential nutrients in their food as well as vaccines.



Types of Feed for Cattle:

- Grass – one of the healthiest feeds for cattle which grows almost anywhere.



- Corn – sourced from corn plants.



- Barley – a type of cereal grass.



- Other supplements – molasses, veterinary drugs for growth, hormones, and feed additives.



5 Tips for Feeding Cattle

1. Know the required nutrition.
2. Check for adequate grass feed.
3. Make sure the feed is healthy for cattle.
4. Feed cattle with enough food for their needs.
5. Look for other options which are less costly but still nutritious for cattle.

Swine (aka Pigs or Hogs)

Swine qualify as one of the easiest livestock to raise as long as you give proper housing, diet, and ideal health care for the animals. Hogs are also low-maintenance animals compared to other livestock. As long as you adequately feed them every day, pigs can be healthy even in a small space. The recommended housing temperature for new piglets is 95° F (35° C) for at least a week.



Proper Environment and Housing

- If the only place available for your pigs is your backyard, they will need the shade of trees to protect them from the heat of the sun and rain. You can stake a pigpen with the use of strong cordage or fencing to keep the animals in.
- For the pigpen, make sure it has bedding that is deep and is cleaned regularly to prevent foul odor and for the pigs to remain free of diseases.

Food and Water

For your pigs to grow and gain weight and meat easily, you should use high quality feeds. Remember that the taste of meat is affected by the kind of feed given. If your concern is to just take care of them much like pets, you could simply give them grass, scrap vegetables and other leftover foods. Make sure the water you give them is clean, especially if it is stored in a container.

Health Care for Swine

Pigs should not be housed with other animals and vaccines must be given as a protection against diseases. Every once in a while, pigs should be allowed to wander outside. Their enclosure should be cleaned to prevent worms from infesting stagnant pig waste inside the pen. Pigs should be dewormed regularly.

How to Feed Pigs

To help your pigs grow big and healthy, you must know what to feed them, when to feed them and how to feed them, whether your purpose for raising them is for your personal consumption or for business. It is always best to give them the right amount of feeds for them to produce healthy meat. Here are things to consider when feeding pigs:

1. Select proper feeds for piglets – young pigs must be fed with pellets and supplements that are recommended for their age and which you can keep in storage.



2. Growing pigs benefit from nutritious scraps – as your pigs mature, you can wean them off pellet feeds and start feeding them with leftover food from your table, including scraps of corn, rice and vegetables.



3. Fresh fruits and vegetables for your pigs – fresh fruits and vegetables can help your pigs grow desirable meat. To make it less costly on your part, you can feed them your leftover fresh fruits and vegetables.



4. Leftover food from your own table or your neighbors are best for pigs – avoid giving them spoiled food, as this may lead to worms and other diseases.



What can you feed swine?

1. Pig feeds, which are commonly available in the market, are similar to processed food.



2. Well-cooked food scraps such as fruits, vegetables, and bread.



3. Restaurant leftovers which are well-cooked.



4. Wild vegetables, bananas, and grass that are prepared and cooked properly.



What You Should Not Feed Your Pigs

1. Processed meat like hotdogs, bacon, salami, ham and raw or slightly cooked meats.
2. Chicken feed, and raw or uncooked meats.



3. Fish products (the meat will get a fishy taste) and bones (take longer to digest).



Carabao



The carabao (*Bubalus bubalis*), is the national animal of the Philippines which symbolizes the hardworking spirit of Filipinos. It is the best friend of farmers in the rice field and helps in tilling the soil, harvesting crops, transporting people, and providing healthy milk and rich meat in far-flung areas.

Water is important in raising carabaos though they can easily adjust to hot and humid weather. Carabaos can be stressed by too much heat, so they need to wallow in muddy puddles and bathe in water to cool down.

Goats

Goats are one of the easiest livestock to take care of since they feed on grass which is everywhere. If fed grass that is rich in protein, calcium, and copper (for disease resistance), goats can live up to 14 years. They need to eat grass at least 8 hours a day. With such a high metabolism, goats have a normally high body temperature of 102° F (38.88° C). Since their body is typically this hot, they can easily get thirsty, so they need plenty of water (which they also get from grass). If solely fed on grass, female goats would be generally lighter in weight than male goats. Apart from grass, goats need next to nothing. But if they are fed kitchen scrap, both male and female could become overweight and prone to kidney or bladder diseases which would result in a shorter lifespan.



Goats can be adequately sheltered by roofed housing. A fenced-in space in your backyard would also do if it would keep them from jumping out and running away. Make sure goats are fed plenty of healthy grass as well as have access to fresh air and water as this will give them a stress-free and comfortable life. It's best not to restrain goats by tying them up with a rope around their neck as this will only make them irritable.

Poultry

What animal do you recall when you hear the word "Poultry"?

Birds that are raised for meat and eggs are called poultry. This includes chickens, ducks, quails, and even pigeons.

Chickens are mainly raised to produce eggs and meat. However, the byproducts of raising chickens can have other uses. For example, the manure, or waste of chickens can also serve as an organic fertilizer for plants. It can also be used as feed for bangus, or fish pond fertilizer, giving chicken raisers an opportunity for additional income. Chicken feathers can also be used in making handicrafts that can be a good source of income as well.

Benefits of Caring for Livestock and Poultry

There are different animals that we can raise in our backyard. Nowadays, it is easier to raise animals because of some of the tools and equipment that are available in the market.

It is beneficial to raise livestock and poultry because it can serve as the supplementary food to your family. You can also sell the meat, eggs, or milk that is produced by your backyard animals.

In Business

Keeping your livestock healthy is very important if your purpose for keeping them is to earn a living for oneself. Proper food, care, and maintenance must be applied for each kind of livestock to make the animals healthy. If your livestock are properly taken care of, for sure they will be healthy and your business will be more successful as your livestock will command a good price from buyers.

There are many different strategies that can help in marketing livestock and poultry.

You can create flyers to distribute to people, informing them that you are selling poultry and livestock. You can also bring them directly to the nearest market in your community.

Another is to post online ads. With just one click, people will know that you want to sell your livestock, and can talk with you directly.

There are also different ways to sell your raised animals.

First, you can sell them individually to someone who is interested in buying them. One way to do this is to set up a place where you will put all your raised animals for people to choose which one they like. If the animals are sold by weight, they will be weighed, and be priced by the kilo. For example, a large tuna fish weighing 15 kilos can be sold at 1800 pesos if being sold by weight at 120 pesos a kilo.

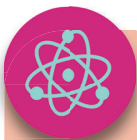
Another way is to sell the animals wholesale. With this method, the animals are being bought as a single unit, say 20 heads of chicken for 500 pesos.

The industry of animal raising has a big contribution to the development of our economy. This is why many people want to try this kind of business venture.

The following are some of the things to remember in starting up a business, whether animal raising or even other businesses.

1. **Record** – This is the process of documenting information about your business, such as the kind and quantity of livestock you will raise and market, how much capital and investments you have, the price of each head of livestock, and any income that comes from selling.
2. **Price** – This is the cost of purchasing animals that you have raised.
3. **Capital/Investment** – In business terms, capital is the money used by the business owner to start the business. Meanwhile, investments are the contributions from different sources added to the capital in order to start or grow the business.
4. **Income** – This is the money earned from doing business, minus the costs of keeping the business running.

Type of Fish	Number of kilo	Sold		Value sold	Capital/ Investment
		Quantity	Income		
Milk Fish	20	18	Php 120.00	Php 2160.00	Php 120.00
Tilapya	20	18	Php 80.00	Php 1200.00	Php 120.00
Sapsap	20	18	Php 60.00	Php 720.00	Php 120.00
Alumahan	20	18	Php 90.00	Php 1350.00	Php 120.00
TOTAL				Php 5430.00	Php 480.00
TOTAL INCOME				Php 4950.00	



SUMMARY

Livestock care is the process of applying different methods for making livestock animals healthy. Livestock are animals that provide people with nourishment in the form of meats and milk. Each kind of livestock requires specific methods of care and must be properly sheltered and kept safe for them to be free of disease and for them to produce qua



Multiple choice. Encircle the correct answer.

- _____ 1. A baby of this livestock should be fed with enough colostrum in the first hour after being born.
- _____ 2. Around 95° F (35° C) is a required enclosure temperature for newborn of this livestock for at least a week.
- _____ 3. This livestock symbolizes hardworking Filipinos.

_____ 4. People in the barrios use this livestock as their means of transportation.

_____ 5. The lifespan of this livestock is 14 years.

Exercise 3

Enumeration. Give at least 5 common feeds which cattle, carabaos, swine and goats can eat.

1. _____
2. _____
3. _____
4. _____
5. _____

Exercise 4

Essay. Answer the following.

1. Give other benefits of taking care of livestock and poultry (5 points)

2. Give the products that can be produced in taking care of livestock and poultry.

Exercise 5

Essay. Answer the following.

1. Give another strategy that can help you in marketing your raised livestock.

2. Give another way how to sell your raised animals



LESSON OUTPUT

The student will be asked to provide a slideshow on proper livestock care. It should show at least 4 properly identified points of livestock care taken from the lesson. The output will be graded according to the following rubrics.

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The slideshow is about proper livestock care with 4 properly identified aspects of livestock care taken from the lesson.	The slideshow is about proper livestock care with only 3 properly identified aspects of livestock care taken from the lesson.	The slideshow is about proper livestock care with only 2 properly identified aspects of livestock care taken from the lesson.	The slideshow is about proper livestock care with only 1 properly identified aspects of livestock care taken from the lesson.	The slideshow is about livestock with no properly identified aspect of livestock care taken from the lesson.	
2. Creativity	The slideshow on aspects of livestock care is presented using creative image, textual, and audio elements.	The slideshow on aspects of livestock care is presented using only creative images and textual elements.	The slideshow on aspects of livestock care is presented using only creative images.	The slideshow on aspects of livestock care is presented using only text in the slides. The required information is present.	The slideshow on aspects of livestock care is presented using only text headers with no supporting text.	
3. Promptness	The project was completed 4 or more days ahead of the given deadline.	The project was completed 3 day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed 4 day after the given deadline.	The project was completed 5 or more days after the given deadline.	
TOTAL						

Lesson 4

Fertilizers

TRIVIA

During the pandemic times there are lots of people who developed a new hobby. One of the most common hobby is taking care of plants. They even described a person who loves and enjoys taking care of plant as “*plantita*” or “*plantito*.” There are things to do for a plant to live, bloom, and bear fruits. One of it is applying fertilizer. In this lesson, you will learn more about fertilizers.



LEARNING OUTCOMES

At the end of the lesson, you are expected to be able to:

1. Determine the procedures in creating an organic fertilizer.
2. Discuss the importance of using an organic fertilizer.
3. Understand the systematic care in planting vegetables.
4. Discuss systematic suppression of pests and bugs in plants.



ENGAGE

Watch the following video about 8 Natural and Organic Fertilizers to Grow Big Plants



<https://www.youtube.com/watch?v=lofNYAtHYu4>



EXPLORE

True or false? Type TRUE if the statement is correct, or FALSE if it is incorrect.

- _____ 1. It is best to use a non-organic fertilizer to make sure that all pests are killed.
- _____ 2. You can create your own compost at home.
- _____ 3. Plants that use organic fertilizers are safer to eat than those that use non-organic fertilizer.
- _____ 4. Organic fertilizer improves air flow and water holding capacity.
- _____ 5. After creating compost, you can use it after 1 week.



RESEARCH

Research the following:

1. What are the types of fertilizers?
2. What is the difference between organic fertilizer and non-organic fertilizer?
3. What is the importance of an organic fertilizer?



EXPLAIN

Definition of terms

Organic fertilizer - comes from any organic material like decomposing plant matter, kitchen waste, manure and many more.

Non-organic fertilizer - is the manufactured fertilizer that we can buy in the market and has nitrogen, phosphorus, and potassium.

Compost pit - place where you place the decomposing garbage like manure, leaves, fruit skin, grass, and other organic waste.

Basket composting - this involves putting all decomposing material in one container.

Biological control - is the use of natural chemicals such as non-chemical pesticides like chili, garlic, and onion spray.

Cultural control – is altering the environment, the condition of the plant or the behavior of the pest. **Mechanical control** – is the use of traps to prevent pest infestation of a plant.

Intercropping – is the planting of one or more types of plants that help to control pests and insects.

One of the problems that Filipino farmers constantly face is the lack of income from farming—something that is being worsened by expensive plant care supplies like commercial fertilizers. But did you know that there is a low-cost (or maybe even free) solution that will help farmers save and earn more while keeping fruits and vegetables safe to eat?

Unlike commercial fertilizers which are made up of mixed chemicals, **organic fertilizers** are made of **compost**, or biodegradable waste materials like dead leaves, kitchen scraps, grass cuttings, and even animal waste, combined in a hole in the ground called a **compost pit**, and left to decay until it turns into usable fertilizer. Organic fertilizers provide the same nutrients to garden soil as chemical ones, with the added bonus of being all-natural.

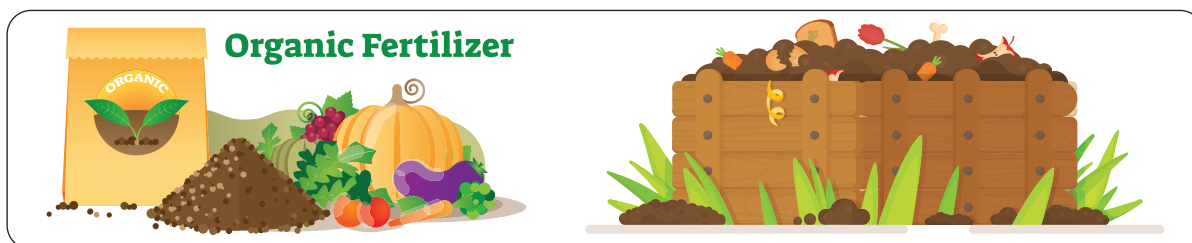
Organic fertilizers can be made even without having to dig a hole; you can combine all of the compost materials in a plastic container instead of digging a compost pit. This method of making fertilizer is what we will be discussing in this lesson.

Creating an Organic Fertilizer

For our plants to be healthy and nutritious, one of the things that we should do is to use fertilizer on it. But where can we find fertilizer? Fertilizers, especially organic ones, may be found at home. You can also make your own organic fertilizer if you do not have any on hand. Using organic fertilizer improves the quality of soil, and helps stimulate the growth of fruits that can be a food source, or can be sold for profit. Fruit trees treated this way can grow abundant fruits that can be of great benefit as food to you and your family.

1. Get a container where to put in all the materials you will need. It can be anything like an old bucket, basin, or a garden pot. Make a small hole at the bottom of it. You can also get a shallow tub or anything that will collect the drained water.

2. Prepare the rich nutrients compost. The following are some of the compost that you can add to your organic fertilizer:
 - a. Eggshells
 - b. Neem leaves or any kind of dried leaves
 - c. Garden soil
 - d. Compost (e.g., earth worms)
 - e. Banana peel
 - f. Kitchen scraps (e.g., vegetable peels)
3. Cut or shred the kitchen scraps into pieces for these to easily break down during the composting stage.
4. Once you are done in cutting/shredding the vegetables, start to put the garden soil into the container. After that, add the compost. This will help to introduce the correct bacteria.
5. After adding the compost, add the kitchen scraps and the banana peel.
6. Add the crushed eggshells (this will add calcium and other minerals to the compost) followed by the neem leaves.
7. Repeat the process in adding the multiple layers of kitchen scraps, leaves, compost and soil. Take note that in layering your compost, the components should come contact with one another and should be laid down in layers that are only few inches deep.
8. Press the mix with your hand to compress it then water it thoroughly.
9. Keep your container exposed to sunlight to break down your compost easily. Do not forget to water it when it gets dry.
10. Mix your compost on a regular basis. This will help the growth of the right bacteria and it will decompose faster.
11. Make sure the mixture stays moist but not too wet.
12. Every few days, give the pile a quick turn with a shovel or stick.
13. After 40 days, you will notice that there will be more earthworms in the compost. They will turn the waste into a fertilizer.
14. It usually takes 2-3 months for the compost to be made, depending upon the weather and the components of your pile. After it, your compost is ready to be used in the garden.



Why Do We Use Compost?

1. The need to have an increased harvest.
2. There will be less methane gas in the grass if it is composted before mixing with the soil.
3. Compost fertilizes the soil again.

Importance of an Organic Fertilizer

1. It improves air flow and water holding capacity.
2. The soil is not easily dried and makes it softer.
3. It gives the nutrients that chemical fertilizers do not have.
4. It is cheaper and it makes the soil healthy.
5. It is safer to eat crops and plants that use organic fertilizer.

Systematic Care in Planting Vegetable

Watering of Plants

Water helps plant roots to absorb nutrients from the soil more easily, which is why you should water plants every day. In watering plants, use a sprinkler with small holes and water the soil around the plant. Do it in the morning and in the afternoon but be reminded that too much water can damage your plants, especially those that are not hungry for water.



Plowing

In plowing soil, you need to make sure that the soil is moist before digging it. You also need to apply extra care in digging because there might be live plants in the soil. Also, hitting roots in the soil you are digging may cause damage to plants. Lastly, you need to use the proper tools and equipment in digging.



Application of Fertilizer

Fertilizers help plants to grow and bear fruit quickly. There are different ways in applying fertilizer to a plant.

1. **Broadcasting method** – the fertilizer is spread over the soil.
2. **Side dressing method** – the fertilizer is applied not too close to the root of the plant.
3. **Foliar application** – spraying of fertilizer to the leaf of the plant.
4. **Ring method** – the fertilizer is placed in a circular pit at no more than one inch from the plant stem.
5. **Basal** – fertilizer is mixed into the soil before using it for planting.



Suppression of Pests and Bugs in Plants

Pests and bugs are one of the most known enemy of plants. They damage plants by eating them upon the completion of their life cycle. Different plants also have different pests. The most common types of plant pest are the following:

1. Moths
2. Beetles
3. Mites
4. Bacteria
5. Fungi

You can prevent pests to reach your plants by the means of an integrated pest management. This is a strategy the prevents pests by combining different techniques such as biological control, cultural control, and mechanical control.

Biological control is the use of natural chemicals such as non-chemical pesticides like chili, garlic, and onion spray. **Cultural control** is altering the environment, the condition of the plant or the behavior of the pest. For example, to remove the pests regularly, you need to provide enough water and sunlight to the plants (which should already be in clean and healthy soil). **Mechanical control** is the use of traps to prevent pests from infesting your plant. An example of this is by wrapping the fruits in paper or plastic. Another way is **intercropping**, which is the cultivation of plants that help control pests and insects.

There are two types of intercropping. The first one is **mixed intercropping**, which is the planting of a variety of plants in all parts of the land. The other type is **row intercropping**, which is planting according to the type of plant. The following are the types of plant that can be intercropped:

1. Marigold
2. Neem
3. Ginger
4. Onion

By applying these different techniques, we can ensure that our plants are healthy, pretty, and pest-free.



EXERCISES

Exercise 1

Identification. Write the answer on the blank.

- _____ 1. It is the planting of one or more types of plant that help to control pests and insects.
- _____ 2. The use of natural chemicals such as non-chemical pesticides like chili, garlic, and onion spray.
- _____ 3. An _____ comes from any organic material like decomposing plant matter, kitchen waste, manure and many more.
- _____ 4. It is the manufactured fertilizer that we can buy in the market and has nitrogen, phosphorus, and potassium.
- _____ 5. The place where you put the decomposing garbage like manure, leaves, fruit skin, grass and others are called _____.
- _____ 6. This is altering the environment, the condition of the plant or the behavior of the pest.
- _____ 7. This is where decomposing material is put in one container.
- _____ 8. The use of traps to prevent the pest infestation of your plant.
- _____ 9. The method where the fertilizer is spread over the soil.
- _____ 10. The method where the fertilizer is mixed into the soil before using it for planting.

Exercise 2

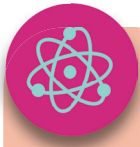
Enumeration

The most common types of plant pest.

1. _____
2. _____
3. _____
4. _____
5. _____

Different ways of applying fertilizer to a plant.

1. _____
2. _____
3. _____
4. _____
5. _____



SUMMARY

Fertilizers come in two types, organic fertilizer and non-organic fertilizer. Organic fertilizer comes from organic materials while non-organic fertilizer is the kind that's manufactured to contain nitrogen, phosphorus, and potassium and can be bought in the market. Creating an organic fertilizer helps your soil be better for plants to grow healthy in and produce food such as fruits which may be consumed or sold for income. There are three ways of systematic care in planting vegetable, which are watering of plants, plowing, and application of fertilizer.



LESSON OUTPUT

Create a slideshow presentation about an organic fertilizer. The content of the slideshow should have the following:

1. Minimum of five (5) slides.
2. How to create an organic fertilizer.
 - a. Text with pictures of the steps.
3. How to apply the organic fertilizer to plants.
 - a. A short video that demonstrates the applying of fertilizer to the plant.

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The output is what is desired, is free of mistakes, is neatly or clearly presented and works as expected.	The output is free of mistakes and is what is desired; works as expected, but the presentation isn't neat or clear.	The output is free of mistakes and is what is desired; works as expected, but the presentation isn't neat or clear.	The output is what is desired / works as expected, but there are some mistakes visible. The presentation is messy.	The output isn't what is desired; doesn't work as expected.	
2. Creativity	The approach of the student is unique and also fulfills the requirements of the project.	The project's requirements are met, and the student took some elements from several existing sources, such as that from other people or the Internet, and built on these.	The project's requirements are met, and the student took some elements from one existing source, such as a person or from the Internet, and built on these.	Some of the project's requirements aren't met.	The project's requirements are not met, and/or the student directly copied (plagiarized) their project from another source, such as from a person or from the Internet.	
3. Promptness	The project was completed 2 days ahead of the given deadline.	The project was completed 1 day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed 1 day after the given deadline.	The project was completed 2 or more days after the given deadline.	
TOTAL						

Home Economics

Meal Planning



Budgeting



Marketing



The Sewing Machine



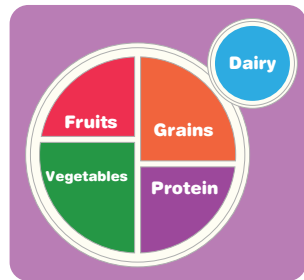
Clothes Care



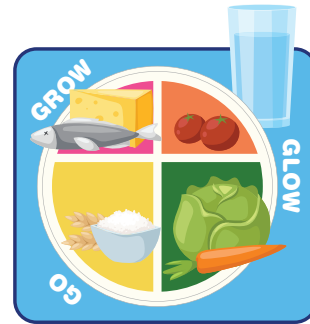
Lesson 1

Meal Planning

TRIVIA



MyPlate



Pinggang Pinoy

For years, the world has pretty much relied on the Food Pyramid as the model for healthy eating. It worked as a tool for showing the different foods but it was confusing on how much people should eat and what foods were more important than the others. So it was decided that it should be replaced, and the result was MyPlate, which showed a food plate divided into four sections (plus a little plate on one side) which differ in size and lists the food groups. The MyPlate is meant to help in meal planning to get the best nutrition. The Philippines has its own version which is called *Pinggang Pinoy*: Healthy food plate for grown up Filipinos.

Have you ever wondered about how your mother plans the meals you eat? Just think about it. She needs to know who will be eating for breakfast, lunch and dinner, so that everyone can get enough to eat, without any food being wasted.



Meal planning is essentially the process of preparing the meals that you will cook and serve for the day. This answers the questions: What am I going to cook? Who will eat the meals? How will I prepare the meals? A lot of factors should be considered in planning a meal, such as the ages of the people who will eat (i.e., adults eat more than infants), any health conditions they may have and if the food has the nutrients required for those who will eat. Sometimes, even the utensils to be used have to be considered. To make meal planning successful, it is best to make a list of the different meals which will be consumed and make a checklist of what should and should not be prepared.



LEARNING OUTCOMES

At the end of the lesson, you are expected to:

1. Describe a meal plan.
2. Identify the four parts of the Food Plate.
3. Present a nutrition diagram.
4. Learn to select and buy ingredients for a nutritious dish/meal.
5. Learn to cook and prepare a nutritious dish/meal.



ENGAGE

The teacher will present a video on meal planning and let the students list down their observations. Write the link that you used.



EXPLORE

Identify what is being described in the sentence.

- _____ 1. The list of ingredients and processes used to prepare a particular meal.
- _____ 2. The best place to buy fresh ingredients.
- _____ 3. The proper balancing of available cash in meal planning.
- _____ 4. Healthy meals.
- _____ 5. Foods that are freshly prepared, rather than preserved.



RESEARCH

Research the following.

- 4 food groups.
- Some vitamins.
- What should be considered when preparing meals?



EXPLAIN

Definition of Terms

Meal Plan – a plan created for the food that will be served during a given time period, so that the ingredients needed can be purchased.

Nutrients – elements, such as vitamins and minerals, that deliver nutrition vital to maintaining life.

Benefit – something that promotes one's well-being.

Health – The physical and mental condition of an individual.

Vitamins – a carbon-based compound essential for the growth of individuals.

Meal Plan

Where meal planning is concerned, a meal plan is best prepared for the whole week. There are three steps used to create meals from a meal plan.

1. Choose what food will be served on what day, and for what meal (breakfast, lunch, dinner) that this will be served on.
2. Calculate which ingredients will be used, as well as the amounts needed.
3. Purchase these ingredients, then ready these for cooking when needed.

The best day to plan a meal is every Friday or weekend, especially if the one in charge of doing so is working. Schedule your shopping for Saturday.

Here are a few questions to ask about what you need when planning your meals.

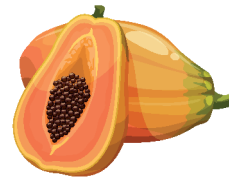
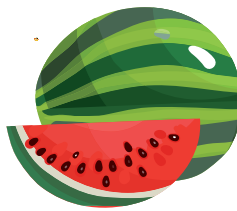
- Do you want to cook different kinds of meals daily?
- Do you want to save money by cooking a meal in a different way?
- Do you want to eat better?
- Do you want to avoid wasting food?
- Do you prefer your meals to have different dishes, so everyone can pick what they want?

There are a lot of things to consider when planning a meal. To make it easy for you, as a beginner, plan your meal according to the three guide questions presented.

Four Parts of Food Plates

The meal plate plan is designed to make sure everyone gets the necessary nutrients they need in a single day. The four food groups on the food plate plan are:

1. **Fruits** – Each kind of fruit has a different mix of nutrients, with some fruits having more nutrients than others. Fruits are high in vitamins, which are organic (carbon-based) compounds needed for cells to grow and function normally.
- Fruits rich in vitamin A – Vitamin A helps keep your vision healthy, normalizes your immune system and organs and helps babies grow properly in the womb. Ripe mangos, watermelon and papayas are examples of fruits rich in vitamin A.



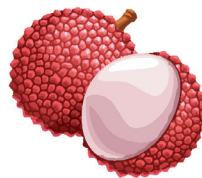
- Fruits rich in vitamin C – Vitamin C is a strong antioxidant which helps keep our skin and immune system healthy. It is also important in connecting our skin cells together. These are the fruits which are rich in vitamin C.



Guava



Lemon



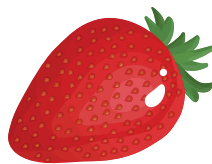
Lychee



Kiwi



Papaya



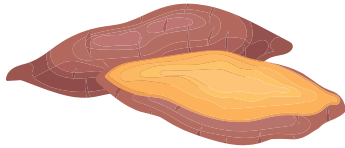
Strawberry



Orange

2. **Vegetables** – Just as with fruits, different kinds of vegetables contain different amounts of nutrients, such as vitamins A, C and B, as well as micronutrients such as iron and macronutrients such as calcium.

- Vegetables with yellow orange and red colors, like carrots, squash, sweet potatoes and tomatoes, are rich in vitamin A.



Sweet potato



Squash



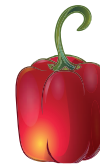
Carrots



Spinach



Lettuce



Red bell pepper

- Green leafy vegetables are rich in Vitamin B.



Spinach

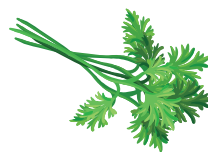


Lettuce

- These vegetables are rich in Vitamin C.



Broccoli



Parsley

3. **Carbohydrates** – These provide the energy needed for our bodies, and are found in grain. Refining grain removes nutrients and fiber. Whole grain foods are thus more nutritious. Grain can also provide iron and vitamin B.

Whole grain products



Cereal



Wheat bread

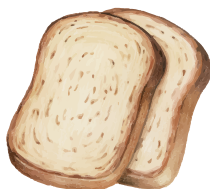


Oatmeal



Brown rice

Refined grain products



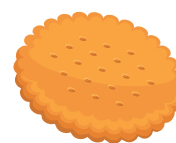
White bread



White rice



Pasta



Crackers

4. **Dairy** – these products are rich in fat, carbohydrates, protein, vitamins and minerals such as calcium, phosphorus, potassium, Vitamins A, D, B12 and niacin. Dairy products help maintain healthy bones.



Milk



Yogurt

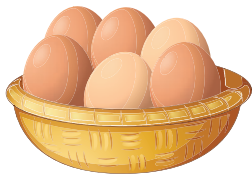


Butter



Cheese

5. **Protein**– Protein is needed to maintain and repair tissues, as well as for children's growth.



Eggs



Almond



Chicken, pork, beef



Oats



Cheese



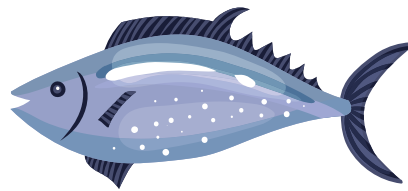
Broccoli



Nuts, such as peanuts



Shrimp



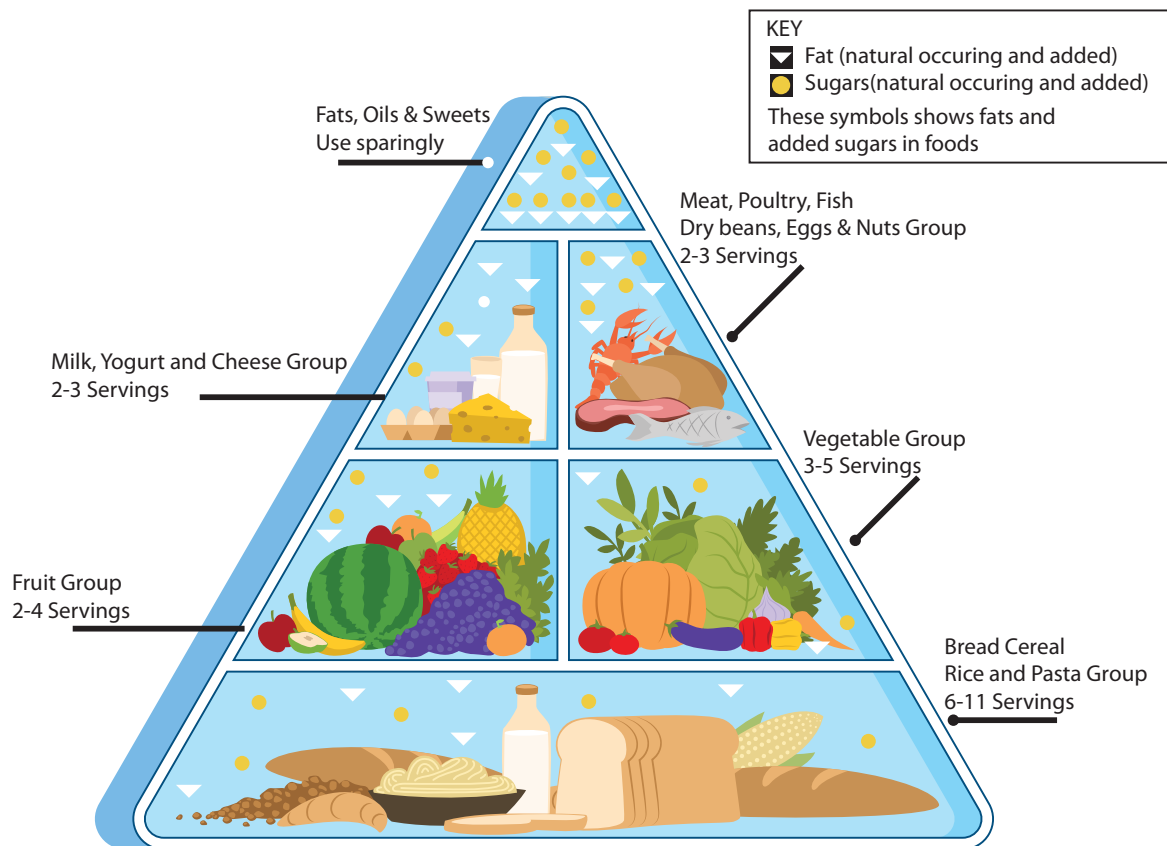
Fish

Nutrition Diagrams

The four-group plate nutrition diagram known as MyPlate is a representation of the kind of healthy meal that needs to be planned. It is shown with pictures and text for it to be easily understood.



The food diagram which was replaced by the MyPlate “meal plan” is the Food Pyramid, which shows the servings of food that should be eaten. This diagram was shelved because people were confused about the recommended servings, like how much is 3 servings of milk, really is?



Planning and Cooking Nutritious Foods (breakfast, lunch, and dinner) According to Budget of the Family

Everybody knows that food is essential for life, and eating nutritious food is important in keeping ourselves and our families healthy. Making a meal plan lets you choose and prepare the right types and amounts of food so that we can make sure that each member of our family gets the nutrients they need.

There are a few things we need to consider, however, before making a meal plan.

1. Nutrients from food – a food plate can let you determine how much of a particular food group you should eat per meal in order to get the right amounts of vitamins and minerals.
2. Budget and family size – Buy enough food according to the size of the family, but also consider the income or budget of the family when selecting the type of food to be bought. Do not buy too much or too little food.
3. Food that children want – Young children can be picky eaters and can be hard to be fed with vegetables.
4. Preparation Time – Consider the preparation and cooking time needed before selecting food types for meals. Meals that only need a few ingredients can be made faster than those with lots of other ingredients, but can also have less nutritional value. Also, over- or undercooking food can lead to nutrient loss on one hand, or foodborne diseases on the other.

Buying Ingredients Used in Cooking

Buying and preparing food for the family always involves being careful and making sure that the items you have selected are nutritious yet still within budget.

Many Filipino families consider buying food items from the market as the first step in food preparation. Being skilled in choosing the best quality produce can go a long way in saving time, money, and energy.

Things to Remember When Buying in Markets

It is recommended to go to the market in the morning to get the freshest picks of produce, and a larger variety of choices.

Being familiar with the different areas and sections of the marketplace will save you time when buying food.

Make a list of ingredients you are going to buy. Bring your own basket or reusable bag when shopping.

Buy fruits and vegetables that are in season.

Buy commonly-used dry food items, such as rice, salt, and certain spices in bulk.

Check the weighing scales to make sure that you are being given the correct weight of the items you are buying.

Try to ask for discounts on the price; pay correctly and check if you are given the right change.

Remember the signs of freshness in food items to easily spot if you are getting new or old stock.

How to Spot Fresh Food Items

PORK

- The flesh is pinkish in color, not reddish or blackish, and the fat is white.
- Soft to the touch but returns to its original form when pressed.
- There is a label proving that it has been reviewed by the government.
- No unpleasant odor.



BEEF

- The meat is reddish and the fat is yellowish.
- There is a label proving that it has been reviewed by the government.
- No unpleasant odor.



CHICKEN

- The flesh is dense and the fat is yellowish.
- The skin is soft, smooth and without bruises.
- No small hairs are visible and the entrails, legs and head have been removed.



FISH

- The eyes are bright, clear, and bulging.
- The gills are red.
- The scales are very close to the skin.
- The flesh is firm and does not separate from the bones.
- No unpleasant odor.



EGGS

- The shell is rough.
- The yolk is clear and translucent when exposed to light.
- Heavy for its size.
- Sinks when placed in a basin of water.



RICE

- The grains are whole.
- There are no rocks, grain, and insects crawling among the grains.
- Dry, heavy, and clean when touched.
- No unpleasant odor.



FRUITS AND VEGETABLES

- No bruises or tender parts.
- The color is bright and vivid.
- The ends of the leafy vegetables are lush and not withered or wrinkled.
- The flesh is hard and the root crops are well-shaped.
- The skin is shiny and the fruits ripen evenly.



Cooking and Presentation of Food

You may have noticed when your parents are making dinner at home that preparing food involves work done by hand using different tools, as well as a variety of cooking methods performed using different kinds of equipment. Knowing how to use these tools and equipment properly allows you to make different kinds of food easily and safely.

Health and Safety Rules in Food Preparation and Cooking

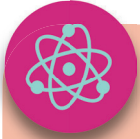
The following are the health and safety rules in food preparation and cooking:

1. Wash hands before and after preparing food.
2. Prepare all the ingredients and cooking utensils that will be used beforehand to avoid having to look for them while cooking.
3. Use an apron to keep your clothes from getting dirty, and put a hairnet on your head to prevent falling hair strands from getting into the food.
4. Avoid wearing jewelry on hands while cooking.
5. Prepare and cook the amount of food that is just right for the size of the family.
6. Thoroughly rinse fruits, vegetables, fish and meat in running water before peeling and slicing. However, avoid soaking them in water to prevent nutrients from getting lost.
7. Be careful when using sharp and pointed instruments like knives.
8. Designate separate, covered trash cans for wet and dry waste. Clean up waste so it does not clutter up the cooking area.
9. Do not leave any cooking food unattended to prevent it from overflowing, drying or burning.
10. Use potholders to prevent burns while holding hot surfaces.
11. Make sure the cooking area is well lit and well ventilated.
12. Keep focused on the process of cooking.

Food Preparation Methods

1. **Peeling** – removing the skin of vegetables or fruits using a knife or the fingers. Some examples of vegetables or fruits that are peeled before being eaten are potatoes, carrots, and mangoes.
2. **Slicing** – cutting the food into smaller pieces to make them cook faster and easier to eat. There are different styles of slicing, depending on the kind of food and how it will be cooked.
3. **Scaling** – removing fish scales with a knife or scaling tool.
4. **Grinding** – it is the processing of food into small particles. This can be done to many kinds of food including meat, nuts, grains, and others.
5. **Beating** – Adding air to the food mixture using a fork, handheld or electric mixer.

6. **Filtering** – Also known as straining, this is the process of separating solid material from the liquid part of a mixture.
7. **Pounding** – The process of beating food with a heavy object to break down its texture and make it tender. This is commonly done to cuts of beef, which can be tough after being cooked.



SUMMARY

Meals must be planned in advance so that the proper ingredients can be bought, and so that the food won't be wasted. All meals should have a balance of the different types of food groups. To help in meal planning, the Food Pyramid was introduced, but it was later replaced by the MyPlate diagram.



EXERCISES

Exercise 1

Multiple Choice. Choose the letter of the correct answer.

1. A plan created for the food that will be served during a given time period, so that the ingredients needed can be purchased.
 - a. Meal plan
 - b. Marketing plan
 - c. Budgeting plan
 - d. None of the above
2. Organic compounds which are needed for cells to function.
 - a. Nutrition
 - b. Minerals
 - c. Vitamins
 - d. None of the above
3. The physical and mental condition of an individual.
 - a. Nourishment
 - b. Health
 - c. Minerals
 - d. None of the above
4. Something that promotes your well-being.
 - a. Benefit
 - b. Mineral
 - c. Vitamin
 - d. None of the above
5. Nutrients are compounds that are vital for maintaining _____.
 - a. Life
 - b. Minerals
 - c. Meal
 - d. None of the above

Exercise 2

Enumerate the following:

1. Fruits rich in vitamin C
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
2. Vegetables rich in vitamin A
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____

3. Dairy food products

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

4. Grains

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

Exercise 3

Enumeration. Answer the following.

Give five (5) things to remember when going to market.

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

How to tell if the fish in the market is fresh?

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

How to tell if the vegetable in the market is fresh?

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

Exercise 4

Enumeration. Answer the following.

Give five (5) health and safety rules in food preparation and cooking

1. _____
2. _____
3. _____
4. _____
5. _____

Give five (5) methods of food preparation

1. _____
2. _____
3. _____
4. _____
5. _____



LESSON OUTPUT

Make a meal plan of your meals for the coming week. The portions should be based on MyPlate.

- Use 1/8 illustration board.
- You have five days to complete the project.
- Students will be graded according to the rubrics that follow.

Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The student covered all meals for the coming week, included comments on the portions of the food groups, and included insights from their parent/guardian on why they planned their meals that way.	The student covered all meals for the coming week and included comments on the portions of the food groups. Insights from family members weren't included.	The student covered all meals for the coming week. No comments were made on the food groups and no insights from family members were included.	The student covered meals for only 4 to 6 days of the coming week. Neither comments nor insights were provided.	The student covered meals for only 0 to 3 days of the coming week and nothing else.	
2. Creativity	The student's output made use of unconventional media and materials which made it pleasing to look at.	The student's output used common media used creatively but still made the content easy to understand.	The student's output was artistic but not clear in the delivery.	The student's output was plain yet only a few things were easy to understand.	The student did not attempt to be creative in any way in delivering the content of the project.	
3. Promptness	The project was completed four days ahead of the given deadline.	The project was completed within three days ahead of the given deadline.	The project was completed by the given deadline.	The project was completed a day after the given deadline.	The project was completed two days or more after the given deadline.	

TOTAL

Lesson 2

Budgeting

TRIVIA

In a study, children between the ages of 7 to 12 were given an average allowance of around PHP 157 per week. Did you know that most of them saved some of their allowance to buy the things they aspire for, such as computer-related products, bags and shoes?



LEARNING OUTCOMES

At the end of the lesson, you are expected to:

1. Define what budgeting is.
2. Identify different sources of income.
3. Define what financial acumen is.



ENGAGE

The teacher will tell a story about the family which has a financial problem. The teacher will ask the students about any lessons they have picked up from the story.



EXPLORE

Write TRUE if the statement is correct and FALSE if it is incorrect

- _____ 1. Money is involved in budgeting.
- _____ 2. Budgeting is a process.
- _____ 3. Money can buy anything.
- _____ 4. You cannot live without money
- _____ 5. Salary is a source of income.



RESEARCH

Research on the following:

- The importance of budgeting.
- Factors to be considered when creating a budget.



EXPLAIN

Definition of terms

Budgeting – the process of planning how money will be spent.

Money – a medium which allows for the easy exchange of goods and services.

Acumen – ability to make quick, good decisions.

Income – money received from work or from investments.

Budget – a planned estimate of how much will be spent on what, for a particular period of time.

If you have been given an allowance by your parents, you know that you can only buy certain things. Maybe your allowance is for you to buy food; maybe your allowance is for you to buy both food and school supplies. That said, you only have enough money available in your allowance, so you need to make sure you do get what you need.

This is much the same thing with a family, except that, in a family, the money available is determined by the income of the parents, and what needs to be spent for isn't just food and school supplies. Money needs to be spent for your schooling and for the schooling of your siblings, as well as for electricity, water, and home repairs. Making sure that there is enough money for all these is what budgeting is all about.

Budgeting

Budgeting refers to the process of planning how your money will be spent over a certain period of time. Properly budgeting your money allows you to figure out how much to spend on what. If you don't have that much money, you will need to prioritize what things to spend on, such as food and rent; and if you have any extra money beyond that, this can be spent on other things and activities, or be saved for the future.



Tips When Budgeting

1. Know what monthly income is for the time period you will budget for. This is all you can spend, without getting into debt.
2. As much as possible, use the 50/30/20 method as your budgeting framework.

Budget 50% of your income for daily or regular essentials. These are:

- Food
- Rental
- Bills – electrical, water, telephone, Internet connection,
- salary for maids and drivers (if any)

Budget 30% for the things you want.

- Shopping
- Travel
- Sports activities

Budget 20% for savings and as payment of debts.

3. Before the beginning of the month, always set your budget to zero. Don't include any money saved over from the previous month.
4. You may have different expenses on different months. For this month, for example, you may only need to buy food, but next month you'll need to buy a gift for your mother. Take this into account, when possible.



5. Set aside money for savings right at the start.
6. Once you have set aside the money for savings, budget the rest of the money for your other needs.
7. Differentiate between what you need and what you want. What you need is something you can't live without, such as food. What you want is something you can do without, such as that brand new cell phone model which will come out tomorrow, since you can make do with an older model.
8. If you still have some money left over after budgeting for your needs, place these in your savings budget.
9. Stick to the budget. If you want something, as much as possible, place this in the budget for the next period.
10. Don't be afraid to experiment. If your budget isn't working for you, change the amounts in the budget as needed.

Different Sources of Income

Income refers to where money comes from. For you, your income will be your allowance, unless you've found other ways to generate income. For adults, these are the common sources of income:

1. Salaries/wages.
2. Profits from a business/profession.
3. Capital gains, which can be things like stock option dividends.
4. Rental payment of property.

Three Types of Sources of Income

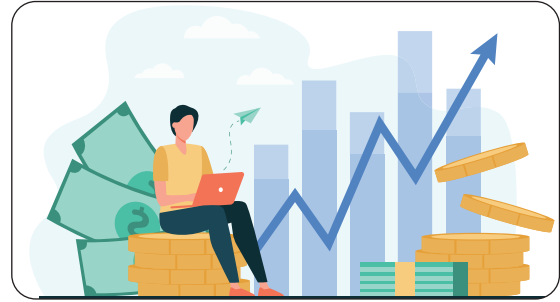
1. Active/Earned Income – this is the kind of income gained by giving time for work as employee, laborer or contract worker. Such sources of income take the form of salaries, wages and bonuses.



2. Passive Income – income gained from one's own business, such as rental property. The effort needed to get this kind of income is usually less, per peso, than the effort given to earn active income.

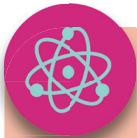


3. Portfolio/Investment Income – income gained by investing. This kind of income doesn't require your attention all the time, but requires a lot of initial money to be put in. Examples of these are saving accounts and investment accounts.



In Business

Business is all about making money, and one of the keys to having a good business is financial acumen. Financial acumen refers to a person's financial literacy and understanding of the processes related to financial methods, such as accounting, cash flow, costs, profit and loss. This is somewhat advanced at your level, but you can make a start by creating a budget for your allowance, as well as starting your own small business, such as maybe by buying and selling candy to your classmates or your friends.



SUMMARY

Budgeting is important to our daily lives, and learning how to budget your allowance is a good way to start. Whenever possible, use the 50/30/20 framework for budgeting, and keep to it as much as possible. Experiment and make any changes with your future budgets as you see fit.



EXERCISES

Exercise 1

Multiple choice. Encircle the correct answer.

1. The process of planning how much money will be spent.
 - a. Budgeting
 - b. Income
 - c. Money
 - d. Budget
2. A medium that allows for the easy exchange of goods and services.
 - a. Budgeting
 - b. Income
 - c. Money
 - d. Budget
3. The ability to make quick, good decisions.
 - a. Budgeting
 - b. Acumen
 - c. Money
 - d. Budget
4. Money received from work or from investments.
 - a. Budgeting
 - b. Acumen
 - c. Money
 - d. Income
5. A planned estimate of how much will be spent on what, for a particular period of time.
 - a. Budget
 - b. Acumen
 - c. Money
 - d. Income
6. Which of the following are sources of income?
 - a. Active income
 - b. Portfolio income
 - c. Passive income
 - d. All of the above
7. Which of the following is your most likely source of income?
 - a. Salary
 - b. Allowance
 - c. Rental payment of property
 - d. Capital gains
8. Which of the following is a budget item which needs to be paid for regularly?
 - a. Food
 - b. Bills
 - c. A new bag
 - d. a and b

9. In the 50/30/20 method, what does the 50 refer to?
- a. Pets
 - b. The things you want
 - c. Regular essentials
 - d. Savings
10. In the 50/30/20 method, what does the 30 refer to?
- a. Pets
 - b. The things you want
 - c. Regular essentials
 - d. Savings



LESSON OUTPUT

Each student will present a monthly budget of a family and of a student like themselves. You can use yourself and/or your family as an example, or that of another student or another family, if you wish.

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The student presented budgets for both a student and a family. Insights and explanations were provided and gone into in depth, including feedback from a parent/guardian on why the family budget was the way it was.	The student presented budgets for both a student and a family. Some insights and explanations were provided.	The student presented budgets for both student and a family. No insights were included.	The student presented only a budget for a student. Neither comments nor insights were provided.	The student failed to present either kind of budget.	
2. Creativity	The student's output made use of unconventional media and materials which made it pleasing to look at.	The student's output used common media used creatively but still made the content easy to understand.	The student's output was artistic but not clear in delivery.	The student's output was plain yet only a few things were easy to understand.	The student did not attempt to be creative in any way in delivering the content of the project.	
3. Promptness	The project was completed two or more days ahead of the given deadline.	The project was completed a day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed a day after the given deadline.	The project was completed two days or more after the given deadline.	
TOTAL						

Lesson 3

Marketing

TRIVIA

Did you know that E-commerce revenue in the Philippines rose to PhP 44 trillion in 2018, compared to PhP 36 trillion in 2017. This was due to an increase in the number of shoppers who are both savvy with the digital environment and who like to shop conveniently. This huge volume of business wasn't created only by word of mouth, but by the various marketing methods used by online companies.



LEARNING OUTCOMES

At the end of the lesson, you are expected to:

1. Define what marketing is.
2. Identify some different marketing concepts.
3. Create a marketing plan for a product or service.



ENGAGE

The teacher will ask the students to watch TV commercials in the link that follows and list down their observations on how the goods or services are being introduced.

https://www.youtube.com/results?search_query=tv+commercials+2020



EXPLORE

Identify whether the picture presents a product or a service.

1.



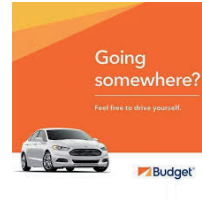
2.



3.



4.



5.



RESEARCH

Research the following:

1. At least one kind of marketing concept.
2. Making a marketing plan.



EXPLAIN

Definition of Terms

Goods – physical products (items) which can be sold.

Market – an area, which could be physical (real-world) or digital, where commercial transactions are made.

Marketing – the act of promoting goods or services.

Media – main method of mass communication. “Medium” is the singular version of this.

Promotion – making known to the public a product, organization or service, so that both public awareness and sales can be increased.

Product – goods or services which can be sold in a market.

Service – an intangible transaction which involves a seller and a buyer.

When you hear the word “marketing,” what comes to mind? Buying something from the supermarket might be the first thing that comes to mind, but marketing is more than that. Marketing is important to business owners as it allows both goods and services to be sold to people who need them. So important is marketing that companies are willing to pay famous celebrities to appear in advertisements to endorse their products or services.

Marketing

Marketing is the act of promoting either a product or a service that a company or person offers. Marketing is a way to call attention to what a business offers. Good marketing motivates or attracts specific people into patronizing a business.



Marketing Media

These are some of the different media you can use to introduce your products. Note that, if you don’t succeed in just one kind of medium, you can try other strategies until you find the most effective one for your product.

1. Social media. These use different programs and applications available on the Internet. The use of social media is popular among people in business who want convenience. Marketing can be done on platforms such as:
 - a. Facebook
 - b. Twitter
 - c. Instagram
 - d. YouTube
 - e. Snapchat



To market online, you need to create an ad to introduce your product, then upload the ad to an online platform. Computer programs are available to make your advertisement look attractive enough to hold people’s attention. Some of these are:

- | | |
|---------------|-------------|
| a. Google | c. Slides |
| b. PowerPoint | d. Jamboard |

2. Television. This is one of the most expensive media to promote on because of all the costs involved. Some of these costs are the talent fees for popular artists, while others are the cost of production and crew salaries. Moreover, airtime can cost around one million pesos for 30 seconds of advertisement.



3. Radio. This is a less expensive media to promote on because only audio is used instead of both audio and video ads shown on television. The cost of airing an ad over radio is a lot cheaper than that for television, at around PhP 5,000 per spot. (A “spot” is a continuous segment of audio that is at least ten seconds long.)
4. Magazines and newspapers. Ads are posted usually as pictures with text on. The cost of printing an advertisement depends on the magazine or newspaper, both of which charge based on advertisement size— the larger the advertisement, the more expensive the charge.



5. Brochures and leaflets. A brochure is essentially a small booklet where your product or business is introduced in detail, while a leaflet is essentially a single piece of paper which describes the product in just enough detail to explain what it is about. Contact details must be included, so that people who have questions, or who might be interested, can get in touch with the business concerned.



Note that, for whatever ad you choose to make, it's best that any picture or quote used are your own or have proper permissions to avoid plagiarism.

Marketing Concepts

Marketing a product can be done using any one of the five marketing concepts which are in popular use today.



1. Production concept. This is used for products that are both inexpensive and easily available, such as commodities like instant noodles. With this concept, businesses focus on mass distribution and efficient high production volumes to deliver low-cost goods.
2. Product concept. This is used for products which are of high quality, for which people will pay more. This is the concept used to sell such products as luxury cars or high-end banking services.
3. Selling concept. This is used by a business to sell a product that the market might not want, such as a beverage company which wants to sell off the one million or so bottles of its beverage which comprise excess stocks in its warehouses. Under this concept, the business aggressively promotes the product which the company wants sold.

4. Marketing concept. This focuses on the needs of the target buyer or audience, with the business giving them what they want, rather than telling them what they could aspire for.
5. Societal marketing concept. This is a variation of the basic marketing concept and is intended to preserve or enhance society's well-being. Companies which employ this concept do not use slave labor to make their products, for example, or find ways to turn what would otherwise be waste material (such as plastics) into useful products produced by the company.

Marketing Plan

Marketing plans are used to outline the marketing strategies a business will use for a particular period of time, such as for a month, a quarter or a year. The marketing plan itself is a document that must contain the following:

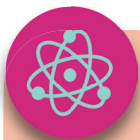


1. The company's marketing and advertising goals.
2. A description of the business's latest marketing situation.
3. The target date by which the strategy is to be completed.
4. Key performance indicators that need to be followed. One example is when a noodle company's marketing plan targets that the company must sell one million packs of noodles a week.
5. The needs of the target market and customers.

Creating a Marketing Plan

Write a simple summary of your business. Include the business goals, marketing achievements, future plans and other facts about the business.

1. **Set measurable and marketable goals.** Make sure that the goals set are realistic and can be measured.
2. **Identify target customers.** These can be identified by conducting interviews or surveys. Identifying target customers is vital for a company. A noodle company, for example, will not sell to people who eat only bread.
3. **Research your competitors.** Knowing what your competitors might be up to can help you create a better marketing plan.
4. **Set appropriate metrics.** Metrics are defined as measurement methods done on something, or the results from this process. An example of metrics is knowing how many packs of noodles are sold by a store per week. This will let managers know if the product is selling well or not.
5. **Create an actionable marketing strategy.** Use a marketing strategy that is suited to your needs.
6. **Set tracking and reporting guidelines.** These guidelines will help you keep track of whether or not your strategy is succeeding.



SUMMARY

Marketing can help a business become successful. There are different kinds of media to focus on, as well as five different kinds of marketing concepts to base a marketing plan on. The marketing plan itself is designed for a company to follow for a particular period of time, and should include metrics so that those involved in the business can tell how effective the plan is.



EXERCISES

Exercise 1

Multiple choice. Encircle the correct answer.

1. This is the act of promoting a service or product goods.
 - a. Marketing
 - b. Market
 - c. Promotion
 - d. Service
2. This makes known to the public a product, organization or service, so that both public awareness and sales can be increased.
 - a. Marketing
 - b. Market
 - c. Promotion
 - d. Product
3. An intangible transaction which involves a seller and a buyer.
 - a. Marketing
 - b. Market
 - c. Promotion
 - d. Service
4. An area where commercial transactions are made.
 - a. Marketing
 - b. Market
 - c. Promotion
 - d. Service
5. Goods or services that can be sold in a market.
 - a. Marketing
 - b. Market
 - c. Promotion
 - d. Product

Exercise 2

Identify the following icons in social media which you can use to market your business.

1. 
2. 
3. 
4. 
5. 

Exercise 3

Write TRUE if the statement is correct and FALSE if it is incorrect.

- _____ 1. Leaflets are a low-cost way of promoting your business or product.
- _____ 2. Brochures consist of only a single sheet of paper which contains information about the business.
- _____ 3. The product concept focuses on the design and quality of the product.
- _____ 4. The selling concept is used by companies who want to preserve society's well-being.
- _____ 5. A marketing plan outlines the strategy a business will use for a particular period of time.



LESSON OUTPUT

The student will create a basic marketing plan for any product or service. The marketing plan must be presented within five days, and students will be graded according to the following rubrics:

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The student created a marketing plan which had all seven steps detailed from the lesson section, "Creating a Marketing Plan." Included was information which gave more insight into the plan itself.	The student created a marketing plan which had only the seven steps detailed from the lesson section, "Creating a Marketing Plan."	The student created a marketing plan which had only Steps 1-5 from the lesson section, "Creating a Marketing Plan."	The student created a marketing plan which had only Steps 1-3 from the lesson section, "Creating a Marketing Plan."	The student either didn't create a marketing plan, or had a marketing plan which had only one of the steps involved from the lesson section, "Creating a Marketing Plan."	
2. Creativity	The student's output made use of unconventional media and materials which made it pleasing to look at.	The student's output used common media used creatively but still made the content easy to understand.	The student's output was artistic and fairly clear in delivery.	The student's output was plain and only a few things were easy to understand.	The student did not attempt to be creative in any way in delivering the content of the project.	
3. Promptness	The project was completed two or more days ahead of the given deadline.	The project was completed within one day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed a day after the given deadline.	The project was completed two days or more after the given deadline.	

TOTAL

Lesson 4

Clothes Care

TRIVIA

Before the Spaniards arrived in the country, ancient Filipinos gave special meanings to their clothes and the materials they were made of. For Filipino men of the period, the clothes they wore told other people of their bravery, their ability in battle, and even the number of enemies they have killed.

The materials used to make the clothes announced the wealth and social standing of the person wearing it; clothes made from abaca meant that the person was rich or belonged to the elite class. If a man was wearing a red loincloth or *bahag*, then he is a warrior that has killed an enemy.



LEARNING OUTCOMES

At the end of the lesson, you are expected to be able to:

1. Discuss the different ways on how to keep clothes clean.
2. Demonstrate the correct method of doing laundry.
3. Demonstrate the correct way of ironing clothes.



ENGAGE

Look at the pictures below. What can you observe from them? Which of the following is neat and which one is untidy? Cross out the pictures that show untidy clothes, then answer the question that follows.



1. Have you experienced washing your own clothes? If yes, tell the class your experience. If not, what are your expectations in washing your own clothes? Do you think washing clothes will be easy or hard?
2. Have you seen a person that is ironing clothes? What did you observe? Are the clothes they are ironing free from wrinkles?



EXPLORE

True or False. Choose TRUE if the statement is correct and FALSE if it is not.

- _____ 1. In washing your clothes, you do not need to separate white from colored clothes.
- _____ 2. If your clothes have stains, you need to remove them immediately because it will stick to the clothes permanently.
- _____ 3. It is okay not to iron your clothes when it is crumpled.
- _____ 4. Used clothes can be used in wiping your wet hands, sweat and cold.
- _____ 5. Repair tears in clothes while they are still small, and before washing it.



RESEARCH

1. What are the steps in washing clothes?
2. What are the steps in ironing clothes?
3. What are the different kinds of stains and how to remove them?



EXPLAIN

Definition of Terms

Basin – this is a shallow container that you use when washing clothes.

Hanger – this is a plastic or metal frame from which clothes are hung to dry.

Flat iron – an appliance that uses heat in order to press and smoothen out wrinkles and crumples in clothes and fabrics.

Ironing board – used as a working surface for ironing clothes.

Ways to Keep the Clothes Clean

Wearing proper clothing is important because it reflects who we are. Just like you, clothes need proper care so they will last a long time – but how do we take care of our clothes? The following are the things to remember in keeping our clothes usable for longer.

1. Ventilate or air-dry sweat-soaked clothing to eliminate odors. When it dries out, put it in a laundry basket along with other dirty clothes.
2. Remove any stains on the clothes while they are still fresh and new to prevent them from discoloring the fabric permanently.
3. Inspect clothes regularly to find damage like rips and tears, and repair them immediately. Do this before washing clothes, as the washing action might make the damage larger.
4. Fold your household clothes, then store them in cabinet according to color and use.
5. Do not sit down on dirty places. Wipe or put a pad before sitting down.
6. Do not wipe dirty hands on your clothes, or use them as a towel or handkerchief to wipe bodily fluids on. Instead, use tissue papers and dispose of them properly.

Remember that knowing how to care for your clothes is a sign of discipline and neatness. Taking care of, and repairing garments saves time, money and energy, not to mention getting to use your clothes for a longer time.

Tools and Equipment in Washing Your Clothes

Soap and detergents – these are used to remove the dirt from your clothes.



Basin – this is a shallow container that is used for washing clothes.



Brush – this will help you to remove dirt from your clothes more efficiently if you cannot remove them by hand.



Laundry Basket – this where dirty clothes are placed.



Hanger – this is a wooden, plastic or metal frame from which clothes are hung to dry.



Washing machine – this is an electric appliance that help people to wash clothes.



Correct Method of Washing Clothes

Now that you already know how to take care of your clothes, the next thing to learn is how to wash them. The following are the steps in washing your clothes by hand:

1. Prepare laundry items such as soap and detergents, water, basin, and brush.
2. Inspect the clothes. Make sure that all the pockets of the clothes are empty. Sew up any rips or tears before washing.

3. Separate whites from colored clothes, including clothes whose colors have already faded.
4. Soak each group of dirty clothes separately – whites first, followed by all colored clothes.
5. Wash with water the soaked white clothes first, using the brush if needed, then followed by the colored ones and lastly, the colored faded clothes. Rinse the clothes very well.
6. Squeeze excess water from the washed clothes, and hang them to dry. However, note that colored clothes may fade because of the effect of sunlight on coloring dyes.

Doing laundry using a washing machine uses almost the same steps, the only difference being that you don't have to wash the clothes by hand, or squeeze the water out of the clothes if the washing machine has a spin dryer.

Removing of Different Kinds of Stains

Seeing stains on your clothes isn't pleasing to the eyes, right? However, it pays to know what to do if your clothes do get stained. The following are some of the common clothes stains, and the tools and procedures you need to follow to remove them.

1. **Chewing Gum**

Tools needed: Ice, Knife and Oil

Procedure: Rub the ice on the chewing gum until it hardens. Scrape it gently with a knife, put a very small amount of oil on the gum, then scrape it again until it gets removed from the clothes completely.

Remember to always ask for your parents or guardians' help if you find chewing gum stuck on your clothes. Let them scrape it for you. DO NOT use a knife by yourself because it may cause an accident.



2. **Ink**

Tools needed: 70% solution alcohol and absorbent cloth

Procedure: Pour a small amount of alcohol on the ink stain, then pat it with an absorbent cloth until it fades.



3. **Paint**

Tools needed: Kerosene gas, rag, and soap

Procedure: Put a small amount of kerosene on the rag, then rub it on the paint stain until it fades. Wash and rinse the cloth afterwards.

Remember to ask for help from your parents or guardians when using kerosene to remove paint stains. Kerosene is very flammable (catches fire easily) and may cause a fire if unattended.



4. **Rust**

Tools needed: Salt and calamansi extract

Procedure: Sprinkle salt and calamansi juice on the rusted area. Rinse with soap and water.



5. **Chocolate**

Tools needed: Hot water and soap

Procedure: Soak in hot water for at least five minutes, apply soap, scrub, and rinse until the stain disappears. Be careful in touching clothes soaked in hot water because it may burn your skin. Always ask for your guardians' help in removing the stains on your clothes to avoid accidents.



Safety Precautions in Washing Your Clothes

Using a washing machine can make doing laundry much easier, but we still have to take a few precautions before using it.

1. Empty all the pockets of the clothes you are going to wash. Make sure that you remove hard and sharp objects like coins and pins, as well as paper items like tissues because they can damage the washing machine.
2. Do not open the washing machine lid while it is still running.
3. If the washing machine is broken, do not repair it by yourself. You should contact a person that knows how to repair it.
4. Always double-check the washing machine if there is anything in it before starting a wash cycle.
5. Unplug the washing machine when not in use.
6. Do not mix detergents with other chemicals. It may cause unexpected reactions that can result in dangerous fumes or damage your clothes.
7. Keep away from electric outlets while your hands are wet to avoid getting electrocuted.
8. Wash your hands before and after doing the laundry.
9. Keep the laundry detergent in one place to avoid spilling it and causing an accident.
10. Keep detergent powder in a closed container to keep water from getting into it and dissolving it.

Correct Way of Ironing Clothes

Have you noticed how clothes look after getting washed? That's right—they all look crumpled and wrinkled. They need to be ironed, or **pressed**, to smoothen and straighten out the wrinkles. Pressed clothes look presentable, and the wearer looks well-dressed, respectable, and confident.

The following are the things to remember in ironing your clothes.

1. Prepare the things that you will use in ironing your clothes.
2. Iron small and thin clothes last, as they can be pressed easily with a small amount of heat.
3. Organize the items that you are going to press. Separate pants, skirts, polos, shirts, blouses, and others.
4. Iron in a place that you will not be disturbed, and make sure that the outlet where you will plug your flat iron is okay.
5. Be careful when using a hot flat iron. Make sure it is always safe while working.

Tools and Equipment in Ironing Your Clothes

Flat iron – this tool is used along with the ironing board to iron crumpled clothes and fabrics.



Ironing board – used as the working surface for ironing.



Hanger – this will maintain the straightness of the clothes you iron.



Steps in Ironing a Polo or Blouse

1. Spray or sprinkle clean water on the part of the garment you are ironing.
2. Iron under the collar, then the front. Move on to the sleeves and the shoulder. Next, press the front part and around the back of the polo or blouse.
3. After ironing the front and back part of the polo or blouse, finish with its hem.
4. Hang the garment neatly, and close the first button nearest to the neck.

Safety Precautions in Ironing Your Clothes

1. Use an ironing board in ironing your clothes. Do not iron on a carpet or a bed because it can start a fire.
2. Do not touch the metal surface of the flat iron when it is in use. It will cause skin burns.
3. Always unplug the flat iron when not in use. It may cause a fire when left plugged and unattended.
4. Keep focused on ironing. Do not multitask like watching a movie and ironing at the same time. It may cause accidents like burning your skin or burning the clothes you are ironing.

In Business

There are people who sell their pre-loved, or second-hand clothes if they don't fit them anymore, or they want to make space for new clothes. Their clothes are usually well-maintained, so even if they are a few years old, they can still be worn by other people. Meanwhile, washing and ironing of clothes are the sources of income for some people. They make a living through it and there are other people who have funded their children's education through washing and ironing.



EXERCISES

Exercise 1

Enumeration.

Give the tools and equipment used in washing clothes.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

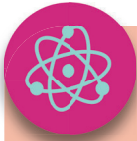
Enumerate the steps in ironing a polo or blouse.

1. _____
2. _____
3. _____
4. _____

Exercise 2

True or False. Choose TRUE if the statement is TRUE then FALSE if it is not.

- _____ 1. Wearing proper clothing is important because it reflects who we are.
- _____ 2. There are people who make money through washing or ironing clothes.
- _____ 3. You can sell your pre-loved clothes when it is still usable.
- _____ 4. Prompt care and repair of garments is not necessary.
- _____ 5. One way of caring for clothes is not sitting on dirty places, and wiping or putting a pad before sitting down.
- _____ 6. Ventilate sweat soaked clothing to eliminate odor.
- _____ 7. You do not need to remove the stains of the clothes immediately.
- _____ 8. Sew the torn part of the clothes while it is still small and before washing it.
- _____ 9. Put your dirty clothes anywhere in your house.
- _____ 10. In ironing your clothes, you can use the carpet or bed if you do not have an ironing board.



SUMMARY

Wearing proper clothing is important because it reflects who we are; just like you, clothes need proper care for it to last long. Remember that having a knowledge of proper clothing care is a sign of discipline. Prompt care and repair of garments is necessary to save money, time, and energy.

There are also different stains like chewing gum, ink, paint, rust, and chocolate that can be eliminated by following procedures in removing it.

In proper clothes care, we need to wash and iron our clothes properly so that we can use them for a long time.



LESSON OUTPUT

Create a simple vlog that shows the steps in washing your clothes with the help of your guardian. You can store your video in an online service like Google Drive, and share it to your teacher after uploading.

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The output is what is desired, is free of mistakes, is neatly or clearly presented and works as expected.	The output is free of mistakes and is what is desired / works as expected, but the presentation isn't neat or clear.	The output is free of mistakes and is what is desired / works as expected, but the presentation isn't neat or clear.	The output is what is desired / works as expected, but there are some mistakes visible. The presentation is messy.	The output isn't what is desired / doesn't work as expected.	
2. Creativity	The approach of the student / group is unique and also fulfills the requirements of the project.	The project's requirements are met, and the student / group took some elements from several existing sources, such as that from other people or the Internet, and built on these.	The project's requirements are met, and the student / group took some elements from one existing source, such as a person or from the Internet, and built on these.	Some of the project's requirements aren't met.	The project's requirements are not met, and/or the student / group directly copied (plagiarized) their project from another source, such as from a person or from the Internet.	
3. Promptness	The project was completed 2 days ahead of the given deadline.	The project was completed 1 day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed 1 day after the given deadline.	The project was completed 2 or more days after the given deadline.	

TOTAL

Lesson 5

The Sewing Machine

TRIVIA

During the first Industrial Revolution, it is said that the sewing machine was invented to help the dressmakers decrease their amount of sewing work. As time passed by, sewing machines improved the efficiency and productivity of many dressmakers.



LEARNING OUTCOMES

At the end of the lesson, you are expected to be able to:

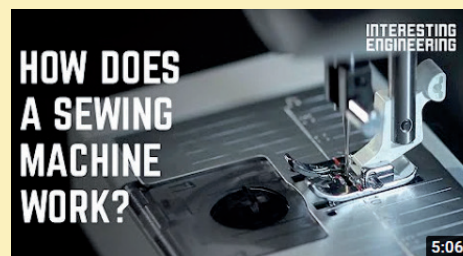
1. Discuss the different parts of a sewing machine.
2. Discuss how to properly use the sewing machine.
3. Identify the different phases of planning a project.
4. Create a household thing that can be source of income.



ENGAGE

Watch the video about How does a sewing machine work?

<https://www.youtube.com/watch?v=7RfGqGiEGTU>





EXPLORE

True or False. Write the TRUE if the statement is correct and FALSE if it is not.

- _____ 1. A sewing machine is a kind of equipment regularly used by dressmakers and tailors to make clothes more quickly.
- _____ 2. Dressmakers are the men who make dresses.
- _____ 3. Sewing machines improved the efficiency and productivity of many dressmakers.
- _____ 4. Tailors are the women who make dresses.
- _____ 5. Sewing is an essential skill you can learn and develop.



RESEARCH

- 1. What is a sewing machine?
- 2. What are the different parts of a sewing machine?



EXPLAIN

Definition of terms

Sewing machine is a kind of equipment regularly used by dressmakers and tailors to make clothes more quickly.

Dressmakers are the women who make dresses.

Tailors are the men who make dresses.

Thimble is a protective cup that is worn on a finger.

Learning how to sew was considered as a feminine course several years ago. However, it is now thought of as an important life skill for both men and women, and is a source of both income and a way of artistic expression for people who like to design clothes. Like any other skill that you can learn and develop, becoming an expert in sewing requires hard work and dedication. A woman who makes dresses is called a **dressmaker**, while a man that sews clothes for a living is called a **tailor**.

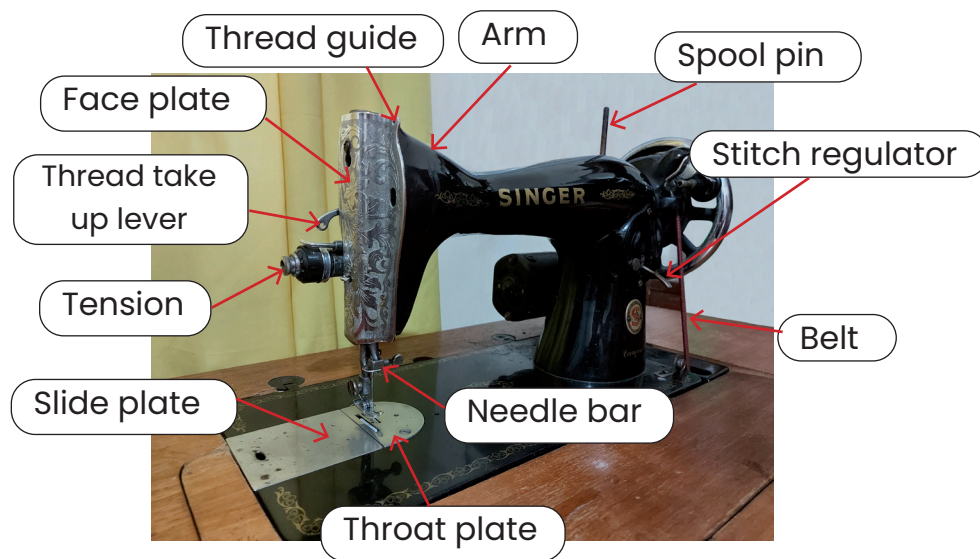
Parts of a Sewing Machine

A sewing machine is a kind of equipment used by dressmakers and tailors to make clothes more quickly.

The following are the parts of a sewing machine.

Elements of the Upper Part of the Sewing Machine

The upper part of the sewing machine is the part we usually see.

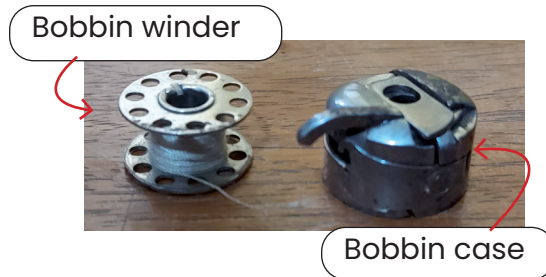


1. **Spool pin:** This is a metal part usually found at the top of a sewing machine that holds a spool of thread.
2. **Thread guide:** used to make sure that thread stays in place during sewing.
3. **Thread take-up lever:** the part that goes up and down as sewing is done.
4. **Presser bar lifter:** a detachable device that controls the presser foot.
5. **Presser foot:** presses the fabric flat on the surface while sewing is done.
6. **Tension regulator:** this part controls the tightness or looseness of the stitches.
7. **Needle bar:** where needle is secured.
8. **Needle clamp:** secures the needle into position.
9. **Needle:** the sewing tool for the thread.

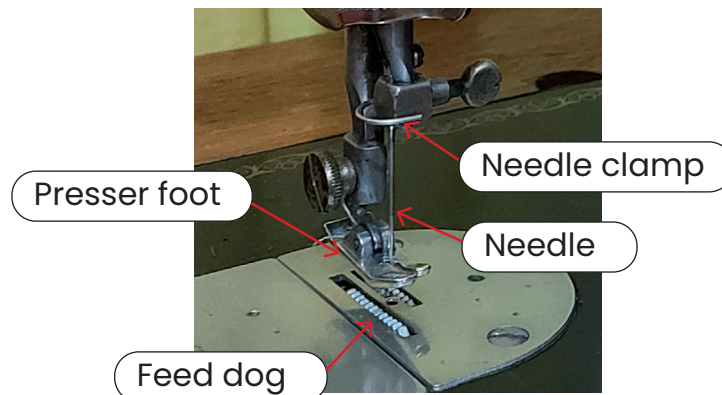
Presser bar Lifter



10. **Bobbin winder:** winds the thread around the bobbin.
11. **Bobbin:** a device where the lower thread is wound.
12. **Bobbin case:** is the container of the bobbin.



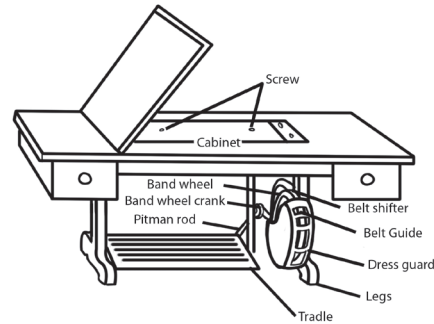
13. **Stitch regulator:** is a device attached to the sewing machine that regularly checks the speed at which stitching is done to ensure consistent, equal-length stitches.
14. **Balance wheel:** a round wheel that is used to manually start the mechanism of the sewing machine.
15. **Belt:** the connector between balance wheel and drive wheel.



16. **Stop motion screw:** the part of the machine that stops the movement of the machine's parts when it is loosened and which enables the machine's parts to move once tightened.
17. **Feed dog:** composed of thin, toothed metal bars that move, or feed, the fabric, in discrete steps, through the machine.
18. **Throat plate:** a rectangular piece of metal with holes for the sewing needle to pass through and slots for the feed dogs to operate.
19. **Slide plate:** is a rectangular plate that covers the bobbin case and shuttle.
20. **Shuttle:** holds thread and carries the lower thread through a loop on the upper thread, to make a lock stitch.

Elements of the Lower Part of the Sewing Machine

1. Band wheel: is where the treadle belt runs around.
2. Band wheel crank: sets the band wheel in motion.
3. Pitman rod: connects the treadle to the band wheel crank.
4. Belt guide: secures the belt into place.
5. Belt Shifter: removes the belt from the wheel.
6. Dress guard: protects the dress from the wheel.
7. Treadle: is the part of a manual sewing machine that is pedaled to propel the band wheel, and thus to make the upper part of the sewing machine operate.
8. Legs: support the entire machine itself.
9. Cabinet: a metal slate with hinges where the head of the sewing machine is locked in by screws.



Safety Precautions

The following are some points to remember in proper use of sewing machine.

1. Sharp objects like scissors, pins, and needles should be stored in one place. If not kept properly, they might cause serious accidents specially to a child like you.
2. Do not put your finger near the needle of the sewing machine when the machine is working. It might prick your finger.
3. Put the sewing machine in a brightly-lit place. The light must be coming from your left shoulder.
4. Sit properly, place your feet on the treadle.
5. Start operating the machine without any thread first.
6. Start the machine by steering the balance wheel towards you.
7. Try to pedal continuously.
8. Train yourself to sew in a straight line. Place two-lined papers under the presser foot.
9. Use a small cloth to try if the stitch is fine.

10. Lower the needle parallel to the line. Slowly release the presser foot downward. Use your left hand to guide the paper. Spin the wheel and try to pedal properly. Reduce the speed of the machine before reaching the end of the cloth.
11. Avoid unnecessary movements of your body. Try to sit straight while sewing, avoid slouching or slumping.
12. Be careful while operating the machine.
13. Make sure your hands are clean while sewing.
14. Make sure that the side plate is closed while the sewing machine is running.
15. Make sure that the color of the fabric and thread you will use in sewing are the same.

Tools and Equipment in Sewing

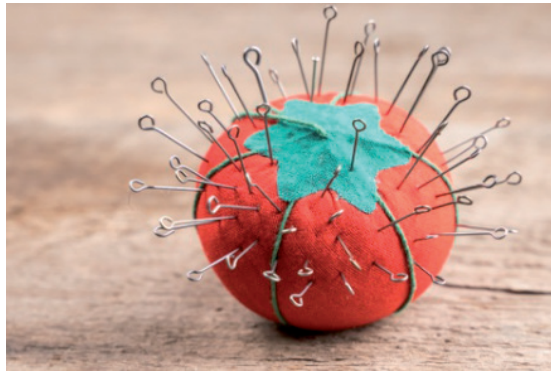
A **needle** is a small, slender, sharp-tipped metal tool, which has a hole, called an “eye,” in the blunt end, which is inserted into fabric to make stitches.



Pins are used to hold the fabric temporarily while sewing.



A **pincushion** is a soft, small pillow that is usually round in shape. Needles and pins are stuck into pincushions, to keep them from being misplaced as well as to avoid accidents.



Thread is a piece of string, a thin length of fabric, that is used to connect, or stitch together, layers of fabrics, portions of a single fabric, or attach accessories to the main fabric. It is available in various colors and you can often find a color that will complement the fabric you are working on.



Fabric is the primary material or medium for creating dresses and clothes. It comes in different textures, shades and patterns.



Trimming scissors are used for cutting fabric and pattern sheets.



Tape Measure is a long and flexible measurement tool used to get body measurements.



Rulers are a measuring and marking tool made out of wood, plastic or metal and is sometimes transparent. It is used to measure sizes and distance. It is also used to draw lines.



Tailor's chalk is made from hardened soapstone or chalk. It is used to make temporary marks on fabrics. It comes in different colors.



A **thimble** is a protective cup that is worn on the tip of a finger. It is used to help push needles into the fabric.



Steps and Procedure

Planning for a sewing project has the same process as any other project you have prepared for before, but it includes knowing about the materials to be used to make the final output. Remember the following guidelines in creating a project:

1. Use the right kind of fabric based on the item to be made and what it is to be used for. For example, everyday clothes can be made of cotton or polyester, athletic wear uses synthetic fabrics, and formal wear can be made from linen fabric.
2. Observe the material being used in the fabric.
3. Use the necessary materials in sewing.
4. Make sure that the materials to be used are appropriate for the requirements of the project, durable, but still within budget.
5. Materials like buttons, threads, needles, and the like are the other things that can only be bought if needed.

Remember that your project has a greater chance of a successful result if you make a careful plan before doing it, because your plan will guide your actions while making the project. It will also help you to save time, energy, materials, and money.

The following are the different parts of a project plan:

1. **Name of the project** – this is where you write what the project is called.
2. **Purpose** – this is where you write what your project is for.
3. **Materials Needed** – this is where you will put the materials needed in the project, together with the price of the materials bought and the total price of the project.
4. **Design** – this is where you will draw a design of your planned project.
5. **Steps and Procedure** – this is where you will put the steps and procedures of your project plan.
6. **Evaluation** – this is where your teacher grades your project.

A. Project Plan of _____

I. Project Name: _____

II. Purpose of the Project: _____

III. Materials Needed:

Quantity	Unit	Description	Price per Piece	Total Price
TOTAL PRICE				

IV. Design

V. Steps and Procedures

- 1.
- 2.
- 3.

VI. Evaluation

Remember that the first thing you need to do is to plan carefully. It is easy to organize the project if the design and plan for the project is ready. Any project you will be starting will be successful if there are plans to follow.

It is also important to prepare the materials to use for sewing. Knowledge on how to use the materials properly is likewise necessary.

Now that you already know how to plan a project, you can now proceed in doing it. The following are the materials needed and steps in creating a hand towel.

Materials Needed:

- Fabric
- Thread
- Needle
- Tape measure
- Ruler

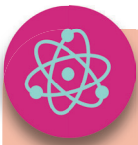
Steps in making a hand towel project:

1. Create a plan for the project.
2. Prepare the materials to be used in making a hand towel.
3. Always remember the standards in safe and healthy production.
4. Identify the steps.
 - a. Select the fabric suitable for the project.
 - b. Measure and cut a 50 x 50 cm square from the fabric using a tape measure and shears.
 - c. Make the hem of the towel. Measure 1 cm from the edge of the cloth. Make a line using tailor's chalk to make the hemline straight, then fold the edge in. Repeat for the other three sides.
 - d. Fold each edge to the inside again. The cloth should have two 1-cm folds on each side.
 - e. Pin the folded edge so that it could be sewn easily.
 - f. Sew the hem of the fabric using a temporary basting stitch.
 - g. Secure the hem using a back stitch.
 - h. Wash fabric then dry.
 - i. Make your project appealing and pleasing one.

In Business

Sewing is a means of income. By making hand towels, purses, handkerchiefs, or even simple rags, then selling them to other people, you can earn small profits, which you can then use to sustain the needs of your small business.

Sewing can be challenging for first-timers, but you will find it fun and enjoying to learn as you go along the way. Developing crafts into lovely projects will make you recognize artistic abilities that you may exhibit to other people.



SUMMARY

A sewing machine is a kind of equipment regularly used by dressmakers and tailors to make clothes more quickly. Women who make clothes are called dressmakers, and men who make clothes are called tailors. The parts of the sewing machine are divided into two halves: the upper part and the lower part. In project planning, you need to know the materials needed in the project. It will also help you to save time, energy, materials, and money.



Multiple Choice. Select the correct words of the given meaning below. Encircle the correct answer.

- | | | |
|----|---|----------------------|
| 1. | It is the container of the bobbin. | |
| | Bobbin case | Bobbin winder |
| | Bobbin | Shuttle |
| 2. | It is the connector between balance wheel and drive wheel. | |
| | Feed dog | Thread take up lever |
| | Belt | Belt Shifter |
| 3. | It is a metal part which you can find to the top of the head. It holds the thread. | |
| | Slide plate | Needle clamp |
| | Throat plate | Spool pin |
| 4. | Winds the thread around the bobbin | |
| | Bobbin case | Bobbin winder |
| | Bobbin | Shuttle |
| 5. | Supports the entire machine itself. | |
| | Cabinet | Treadle |
| | Legs | Pitman rod |
| 6. | Secures the needle into position. | |
| | Needle clamp | Needle |
| | Needle bar | Thread guide |
| 7. | Is a rectangular plate that covers the bobbin case and shuttle. | |
| | Throat plate | Stitch regulator |
| | Shuttle | Slide plate |
| 8. | A device attached to the sewing machine that regularly checks the speed at which stitching is done to ensure consistent, equal-length stitches. | |
| | Throat plate | Stitch regulator |
| | Shuttle | Slide plate |

9. Part of a manual sewing machine that is pedaled to propel the band wheel, and thus to make the upper part of the sewing machine operate.

Treadle

Pitman rod

Band wheel

Dress guard

10. Presses the fabric flat on the surface while sewing is done.

Presser bar lifter

Feed dog

Stop motion screw

Presser foot

Exercise 2

Identification. Write the correct answer on the space provided.

- _____ 1. It is used to make temporary marks on fabrics. It comes in different colors.
- _____ 2. Used for cutting fabric and pattern sheets.
- _____ 3. It is used to measure sizes and distance. It is also used to draw lines.
- _____ 4. Is a small, slender, sharp-tipped metal tool, which has a hole, called an "eye," in the blunt end, which is inserted into fabric to make stitches.
- _____ 5. Is a small soft cushion that is usually round in shape; needles and pins are stuck into it to keep them from being misplaced as well as to avoid accidents.
- _____ 6. It is used to help push needles into the fabric.
- _____ 7. Is a long and flexible measurement tool used to get body measurements.
- _____ 8. Is used to temporary hold the fabric while sewing.
- _____ 9. Is a piece of string, a thin length of fabric, that is used to connect, or stitch together, layers of fabrics, portions of a single fabric, or attach accessories to the main fabric.
- _____ 10. The primary material or medium for creating dresses and clothes. It comes in different textures, shades and patterns.



LESSON OUTPUT

The students will create their own hand towel. The project should have the following requirements:

- Name of the project
- Purpose
- Materials Needed
- Design
- Steps and Procedure

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The output is what is desired, is free of mistakes, is neatly or clearly presented and works as expected.	The output is free of mistakes and is what is desired / works as expected, but the presentation isn't neat or clear.	The output is free of mistakes and is what is desired / works as expected, but the presentation isn't neat or clear.	The output is what is desired / works as expected, but there are some mistakes visible. The presentation is messy.	The output isn't what is desired / doesn't work as expected.	
2. Creativity	The approach of the student / group is unique and also fulfills the requirements of the project.	The project's requirements are met, and the student / group took some elements from several existing sources, such as that from other people or the Internet, and built on these.	The project's requirements are met, and the student / group took some elements from one existing source, such as a person or from the Internet, and built on these.	Some of the project's requirements aren't met.	The project's requirements are not met, and/or the student / group directly copied (plagiarized) their project from another source, such as from a person or from the Internet.	
3. Promptness	The project was completed 2 days ahead of the given deadline.	The project was completed 1 day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed 1 day after the given deadline.	The project was completed 2 or more days after the given deadline.	

TOTAL

Industrial Arts

Handicraft



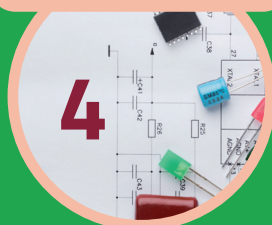
Woodworking



Metal Works



Electrical Works



Lesson 1

Handicraft

TRIVIA

Handicrafts in the Philippines

People have always used handmade products from native, or the so-called “indigenous” materials. In the Philippines, as well as in other places, making handicraft items started during ancient times. Those ancient peoples lived in forests and mountains and crafted items from plants, trees, and animals, like clothing, shelter, utensils, weapons and other tools they needed in order to survive. Even today, in a time of technology and mass production, handicraft items are still being made.



LEARNING OUTCOMES

At the end of the lesson, you are expected to be able to:

1. Define handicraft.
2. Identify some handicraft items.
3. Discuss important knowledge in creating a project using wood, metal, bamboo and other materials found in the community.



ENGAGE

The teacher will present slides on the evolution of handicraft products.



EXPLORE

What do you already know about handicrafts?

How much do you already know about common tools and materials in making handicrafts? Answer the following.

1. It is the skill of making objects by hand, with or without the use of tools.
 - a. Handicraft
 - b. Plumbing
 - c. Construction
 - d. Welding
2. This tool is used to cut light materials.
 - a. Scissors
 - b. Tin snip
 - c. Chain saw
 - d. Electric saw
3. This article is used by women to make themselves appear more attractive.
 - a. Soap
 - b. Hair
 - c. Jewelry
 - d. All of the above
4. This material makes your handicraft product appear more presentable.
 - a. Ribbon
 - b. Lace
 - c. Beads
 - d. All of the above
5. This tool is used to cut wire.
 - a. Side cutting pliers
 - b. Claw hammer
 - c. Screwdriver
 - d. C-clamp
6. This material is used to fasten together different parts of a handicraft product.
 - a. Glue
 - b. Rugby
 - c. Nails
 - d. All of the above
7. This material originated in the Bicol province.
 - a. Abaca
 - b. Rattan
 - c. Maguey
 - d. Seashells
8. This tool is used to help fasten two materials together.
 - a. Long nose pliers
 - b. Combination pliers
 - c. C-clamp
 - d. Hammer

9. This handicraft item is used to carry fruits and vegetables.
- | | |
|-----------|----------------|
| a. Plates | c. Plastic bag |
| b. Basket | d. Cups |
10. This material is best for constructing furniture.
- | | |
|-----------|---------------|
| a. Rattan | c. Piña fiber |
| b. Cotton | d. Maguey |



RESEARCH

1. What is recycling?
2. Draw the symbol for recycling.
3. How does recycling affect our economic status?



EXPLAIN

Definition of Terms

Indigenous – native to a particular place

Basic – essential

Recycle – reuse

What Is Handicraft?

Handicraft is the skill of making objects by hand. A **handicraft item** is anything made by hand, with or without the use of tools, and is made of indigenous materials. This item may primarily be created as an ornamental object, but it can also be a useful item.

Recycling is one of the possible processes involved in handicraft making. It is the process of using materials intended for one purpose for another purpose. Handicraft items can nowadays be made from recycled material.

Safety Precautions

You should consider your safety before working on a handicraft item. Here are some tips to stay safe while working.

1. Follow your teacher's instructions. Teachers give instructions before having their students perform a particular task. Listen carefully so you know what you are and aren't supposed to do.
2. Ask your teacher for help if you don't know what to do. Feel free to ask about something which you are not familiar with. It's better to be safe than not.
3. Before using any tool, know how, when, and where to use it. If you don't know how to use a tool, ask assistance from your teacher.
4. Wear appropriate safety gear. Safety gear help protect you from harm. Each piece of gear has its own purpose; ear plugs, for example, help protect your hearing, while gloves help protect your hands.
5. Do not play while working. When working, concentrate on what you are working on to avoid mistakes and accidents.
6. Never play with tools. Most of these are sharp and weighted and will harm you if not used properly.
7. Remove jewelry while working. Most jewelry is made of metal, which can conduct electricity which could electrocute you.
8. Never bring food or drink into your working area. Dust and vapor could enter your food and drink, making these possibly dangerous to consume, and the materials you use could be destroyed if drink is spilled on these.
9. Ask for help when carrying heavy loads. Doing so on your own might cause accidents, not only to yourself but also to others.
10. Inform your teacher immediately when an accident occurs in your workplace.
11. Always use the right tool for the right kind of work. Each tool has its own specific function. Tools might get damaged if used outside of its intended purpose.

12. An open space is an advisable workplace because some of the materials used to construct a handicraft item may produce harmful residues. The dust from building materials and chemicals from paint and varnish, for example, would require good ventilation.

Tools and Materials Required When Making Handicraft Items

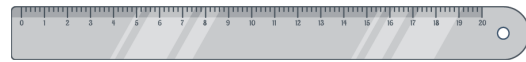
Tools can help make your work easy and fast. These can also make your project presentable.

These are some basic tools used to make handicraft items.

1. **Scissors** – used to cut light materials.



2. **Ruler** – used to measure short lengths.



3. **Tape measure** – used to measure lengths of usually more than 3 feet.



4. **Long nose pliers** – used to hold small materials and wires in place.



5. **Side cutting pliers** – used to cut wires.



6. **C-clamp** – used to clamp two materials being fastened together.



7. **Mallet** – a wooden hammer used to strike soft materials together.



8. **Screwdriver** – used to loosen and tighten screws.



9. **Claw hammer** – used to drive in and pull nails out.



Materials Used to Make Handicraft Items

Materials are the most essential in making handicraft items. You can create a simple handicraft item without tools, but you cannot make such an item without materials.

These are some of the common materials used to make a handicraft product.

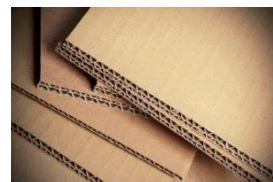
Paper – this is the most abundant material around. These can be old newspapers, old magazines, old notebooks, textbooks, or even the cartons used to package shoes, bags, and groceries.



Used paper



Cartons



Cardboard

Wood – wood and scrap wood can be found in areas where wooden furniture are made. You can ask for scrap wood and use this to create useful handicraft items like toys, ornamentals or small containers.



Popsicle sticks



Wood scraps

Shells – you can find these along the shore or in the sea.



Plastic – this material is common and can be found inside your house.



Empty plastic bottles



Empty plastic containers

Indigenous Materials

Materials	Name and Origin	Sample craft
	Abaca – originated in the Bicol region	
	Maguey – commonly found in Ilocos Norte	

	Cotton – mostly found in Ilocos Norte	
	Piña fiber – weaving started in Aklan	
	Rattan – grows in tropical areas	
	Bamboo – a primitive grass which grows in tropical areas	
	Coconut shell – taken from the fruit of coconut trees, products made from these abundant in Quezon province	

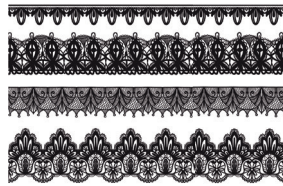
Additional decorative materials – these are used to make handicraft items appear more attractive.



Paint



Varnish



Lace



Beads

Basic Hardware



Nails

Used to permanently fasten the different parts of a handicraft item



Screws

Used to temporarily fasten the different parts of a handicraft item



Hinges

Used for parts of the handicraft item that need to be opened and closed

Example of a recycled Item:

Softdrink Bottle Character Pencil Holders



Materials needed:

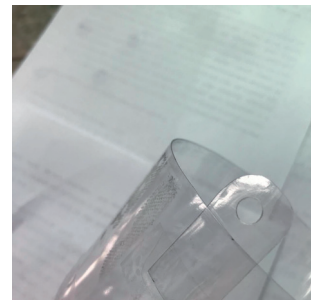
Pair of large softdrink bottles
Cardboard (for pattern making)
Paint
Ribbon (optional) Wire/cord

Tools needed:

Scissors
Paint
Brush
Wire cutter (optional)
Long nose pliers (optional)

Procedure:

1. Slice through the middle of each bottle. The bottom sections will be used as your containers.
2. Cut out the shape of your characters on the cardboard by tracing the outline on the bottle halves.
3. Cut out the face of your characters so that the forehead (including any ears) form the top part of your pencil holders. Punch small holes on the sides for where to attach the string.



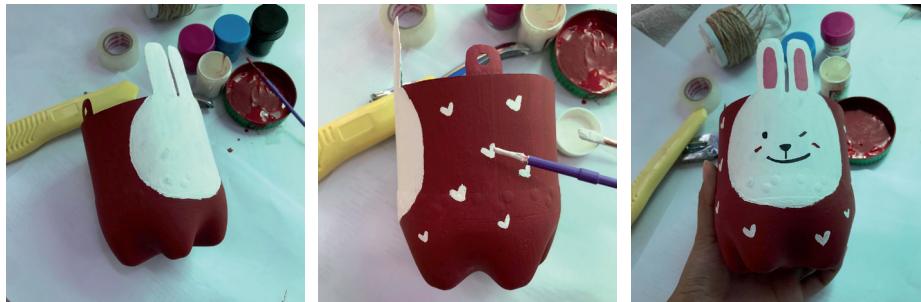
NOTE: Take extra care when cutting the plastic bottle.

4. Paint the bottle pieces with white paint.



NOTE: Wear a face mask and gloves when applying paint.

5. Make your pencil holders your own by painting on cute designs and patterns.



If you wish, you can also use your pencil holders for a different purpose, such as for holding plants.



Skills in Woodwork, Metal, Bamboo and Other Local Materials in the Community

Industrial work requires sufficient knowledge and skills to produce a useful and proud product.

Woodworking

Wood is a hard material taken from the body of a tree. It can be in the form of lumber (wood processed into beams or planks), or plywood, flat boards made up of several thin sheets of wood. We use different kinds of wood when building houses, musical instruments, furniture and other items. Woodworking is the skill of making objects using different kinds of wood.



Some of the trees used for wood in the Philippines are Molave, Kamagong, Narra, Acacia, and Yakal.

Metal Craft

A metal is a material that can be polished to have a shiny appearance, is relatively hard, and can transmit heat and electricity very well. Metals can be in the form of elements like gold, silver, copper, iron and aluminum; they can also be alloys, which are combinations of two or more metallic elements. Steel is the most common kind of alloy.

Metal crafting or metalwork is a significant industry in the Philippines. Metalworks usually involve the creation of steel fixtures like windows and gates, aluminum

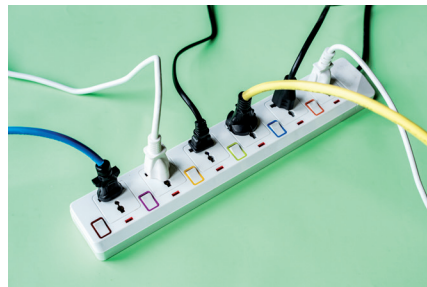
cooking equipment like pots and pans, and even jewelry using alloys of gold and silver.

The following are the products from metal:



Electrical Work

Electricity is a form of energy that comes from the movement of electrons, one of the parts of an atom. Electrical work is concerned with building, maintaining and repairing electrical systems for homes and buildings to make them safe for people to use with their appliances.



The following are things that uses electricity:



These things will not work if not plugged in or if there is no electricity used.

Bamboo work

Bamboo is a fast-growing species of grass with a hard, woody stem. It grows in many parts of the Philippines, usually in tall clusters. It is a strong, versatile plant that can be used for many things, including building houses, making furniture, kitchenware and eating tools like chopsticks. Young bamboo sprouts can also be eaten as vegetables. The industry of using bamboo as material to create things is called bamboo work.

The following are the products from Bamboo:



Other Local Materials in the Community

Rattan

Rattan is a kind of plant that grows similar to a palm tree, but has vines and tendrils that help it climb over other plants. It is one of the most important forest products that is not timber. The core of rattan palms is solid, but can be separated in order to create wicker, which is then used to weave different things like baskets and furniture. Once dried, rattan stems are similar to wood, and can be used to make things like walking sticks and canes for the sport of arnis.



The following are the products from Rattan:



Coconut tree

This tree is also called the “tree of life” because every part of the tree can be made into different products.

Having the right knowledge and skills in various activities related to materials such as wood, metal, bamboo, etc. is essential for a worker to be successful in producing useful products.



In Business

Making handicraft items can be a part of recycling. Making and selling handicraft items is a good business opportunity, since most people are fond of collecting ornamental items to decorate their houses with.

Look for business opportunities around your area and see what suits you. Develop your skills and creativity in creating specific items then share these with friends and family. Later on, your products might become so well-known that you could start your own business based on these.

Start by collecting used materials and think of what you can create out of these, then actually create the handcrafted items.



EXERCISES

Exercise 1

Fill the blank with the correct word to complete the sentence. Choose your answer from the choices written in the following box.

Tools	Indigenous	Ribbon
Reusing	Scissors	

1. _____ is the basic tool used to cut light materials.
2. _____ refers to material which is found in one particular place.
3. A handicraft item is anything made by hand, with or without the use of _____.
4. Recycling is the process of _____ used/old materials.
5. A _____ is one kind of material used to make an item look more attractive.

Exercise 2

Match the image in column A with the description in column B by typing in the letter of your chosen answer.

A



_____ 1.



_____ 2.



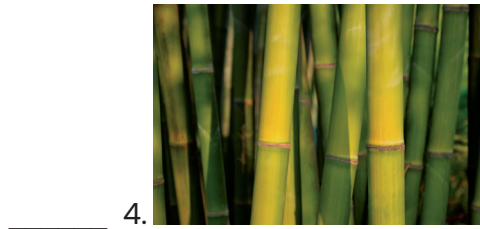
_____ 3.

B

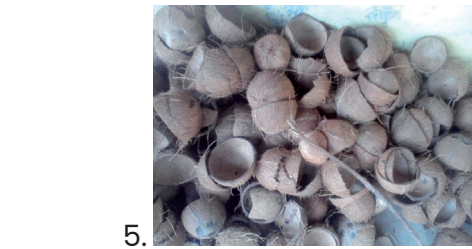
a. Coconut shells

b. Long nose pliers

c. C-clamp



d. Hinges



e. Bamboo

Exercise 3

Arrange the following steps when making a softdrink bottle pencil holder in chronological order. Write the number sequence on the space provided.

1. _____ Cut the bottles in half and use the bottoms to make pots.
2. _____ Customize prepared bottles with pet patterns.
3. _____ Paint the bottles with white paint.
4. _____ Cut out the contours of ears with scissors.
5. _____ Cut the shape of the pets (bunny and bear) out of cardboard and draw these out on the bottle.

Exercise 4

Enumeration. Answer the following.

Give two (2) examples of a product that is made of wood.

1. _____
2. _____

Give two (2) examples of a product that is made of metal.

1. _____
2. _____

Give two (2) examples of a product that needs electricity in order to work.

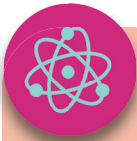
1. _____
2. _____

Give two (2) examples of a product that is made of bamboo

1. _____
2. _____

Give two (2) examples of a product that is made of coconut.

1. _____
2. _____



SUMMARY

Making handicraft items started during ancient times. Such handicraft items provided our ancestors with shelter, clothing, and other essential needs. Even today, handicraft items are still being made, and some of these come from recycled materials.



LESSON OUTPUT

Refer to the sample output in the lesson and look for any used materials inside your house which you can recycle in a similar manner. Think of an item you can make out of it. Create your recycled handicraft item and present it in class with video documentation. List down the materials, tools and procedures that you followed.

You have five days to finish your project. You will be graded according to the given rubrics.

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The handicraft item submitted used recycled materials and was put together to form a decorative item which could definitely be used in some way.	The handicraft item submitted used recycled materials and was put together to form a coherent, possibly useful item. The resultant item made use of decorative materials.	The handicraft item submitted used recycled materials and was put together to form a coherent, possibly useful item. No decorative materials were used.	Recycled materials were submitted, but these did not form a coherent, possibly useful item (e.g., essentially a pile of recycled material which were fastened together).	The item submitted was either not a handicraft item or did not use recycled parts.	
2. Creativity	The student showed a great deal of creativity with the project. The resultant item was very attractive, so much so that someone would be willing to buy it.	The student showed fairly good creativity with the project. The resultant item was fairly attractive, but not enough to be commercially attractive.	The student's output was artistic but not clear in delivery.	The student showed little creativity with the project. The resultant item was alright as a personal gift.	The student did not show any creativity with the project. The resultant item was bland and unappealing.	
3. Promptness	The project was completed two or more days ahead of the given deadline.	The project was completed one day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed one to two days after the given deadline.	The project was completed three days after the given deadline.	
TOTAL						

Lesson 2

Woodworking

TRIVIA

Did you know that Paete, in Laguna is considered as the Wood Carving Capital of the Philippines? It's no wonder because the name of the town itself is the same as the Filipino word for wood chisel. It has a woodworking tradition that's centuries old and it's been said that almost every old church in the country has at least one wooden sculpture or crucifix that originated from there.



LEARNING OUTCOMES

At the end of the lesson, you are expected to be able to:

1. Define what woodworking is.
2. Identify different woodworking tools.
3. Demonstrate how to use various woodworking tools.



ENGAGE

The teacher will ask the learners to watch the video in the given link, then will ask them to list down as many tools as they know which were used in the video.

<https://www.youtube.com/watch?v=1uV8m06QMSE>





EXPLORE

What do you already know about woodworking?

How much do you already know about common tools and materials in woodworking?

1. A tool used to drive and pull out nails.
 - a. Claw hammer
 - b. Jackhammer
 - c. Ball-peen hammer
 - d. Mallet
2. This tool is used to cut wood across the grain.
 - a. Crosscut saw
 - b. Back saw
 - c. Chainsaw
 - d. Hacksaw
3. These are used to permanently fasten parts of a woodcrafted item.
 - a. Screws
 - b. Nails
 - c. Hinges
 - d. All of the above
4. This is used to allow a part of the wooden item to open and close.
 - a. Nail
 - b. Screw
 - c. Hinge
 - d. Wood glue
5. This material is used to smoothen the surface of wood
 - a. Scotch Brite
 - b. Clean rags
 - c. Plane
 - d. Sandpaper



RESEARCH

1. Where does wood come from?
2. What are two of the hardest type of wood around today?
3. Where are trees commonly found?



EXPLAIN

Definition of Terms

Bore – to make a hole, by using a tool.

Fasten – to firmly fix together either different parts of an item, or different items.

Plywood – a strong, thin wooden board which is made up of at least two layers of wood, which are glued and pressed together.

Store – to keep.

Woodworker – someone who creates products made out of wood.

Woodworking – the activity of creating something out of wood.

Work – material that is worked on while making something.

Look around your house. What inside it is made out of wood? Furniture? Cabinets? Different kinds of wood come from different kinds of trees. There are heavy, light, hard, and soft wood. You should know what kind of wood to use, depending on what you intend to build with it.

What is Woodworking?

Woodworking is the process or activity of creating something out of wood. This material is commonly used to construct furniture, like beds, chairs and tables. To create a wooden crafted item, you need to use the tools and materials noted in this lesson.

Basic Tools Used in Woodworking

Tools are the best friends and partners of the woodworker. As a woodworker, you must be familiar with the golden rule of tools, which is: "Use the right tool for the job." This is because if you use a tool which isn't intended for a task, both tool and material could be damaged, and the user injured.

Woodworking tools are classified according to what these do.

1. Driving tools – tools used to drive or push an object into wood.
2. Cutting tools – these are sharp-edged tools used to remove unwanted material from the object you are working on.
3. Smoothing tools – these are used to smoothen surfaces and edges of a wooden item.

4. Boring tools – these are used to create holes.
5. Holding tools – these are used to hold different parts or items together.
6. Measuring tools – these are used to measure particular physical quantities, such as length and weight

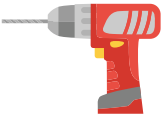
Tool Maintenance

To make sure your tools last for a long time, you must know how to properly care for and maintain these. What follows are what you need to do to maintain your tools.

General Maintenance

1. Store the tools properly when these are not in use.
2. Clean the tools after use.
3. Use a clean, dry rag, as much as possible, to clean tools after use.

Driving tools	Function	Specific Care and Maintenance
1. Claw hammer 	Used to drive in and pull out nails.	Inspect the handle before and after use.
2. Screwdrivers 	Used to loosen and tighten screws.	
Cutting tools		
1. Crosscut saw 	Used to cut wood across its grain.	Always keep the teeth of the saw sharp. Wipe oil on the metal parts regularly, to keep these from rusting.

2.	Key hole saw 	Used to cut shapes in plywood.	Always keep the teeth of the saw sharp. Wipe oil on the metal parts regularly, to keep these from rusting.
3.	Back saw 	Used to create precise cuts in wood.	Always keep the teeth of the saw sharp. Wipe oil on the metal parts regularly, to keep these from rusting.
4.	Chisel 	Used to carve or cut out portions of wood.	
Smoothing tool			
1.	Wooden smoothing plane 	Used to smoothen the surface and other parts of a wood item.	Dismantle the parts after using. Apply oil on metal parts regularly, to keep these from rusting.
Boring tool			
1.	Electric drill 	Used to bore holes into wood.	Apply oil on metal moving parts regularly to keep these from rusting.

Holding tools

1. C-clamp



Used to clamp wooden items down when holes are bored into these.

Used to clamp parts of the work to be fastened together.

Used to clamp wooden items when these are being cut.

Measuring Tool

1. 1-foot ruler



Used to measure distances of one foot long at most.

2. Push-pull rule



Used to make extended distance measurement.

Safety Reminders

1. Always use the right kind tool for the work to be done properly.
2. Do not play around with tools.
3. Avoid dropping tools to keep from damaging them.
4. If you don't know how to use a tool, or need help when using a tool, ask for the help of an adult or someone who knows how to use the tool.

In Business

There is a demand for woodworking; after all, houses and households do need woodwork items like furniture, cabinets and so on. You can set up a woodworking business to turn out such items. Expenses will include the tools and equipment you will use, as well as the wood which will be worked on, and any rental of the space you will work in. Your profits will come from selling the items you produce.



EXERCISES

Exercise 1

Match the items in column A to those in column B. Type in the letter of the correct answer.

A	B
_____ 1. Woodwork item	a. Paste
_____ 2. Plywood	b. Keep
_____ 3. Bore	c. Hole
_____ 4. Store	d. Thin wooden board
_____ 5. Fasten	e. Something made out of wood

Exercise 2

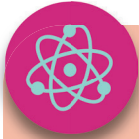
Identification. Identify the name of the tool being described.

- _____ 1. Used to loosen and tighten screws.
- _____ 2. Used to bore holes.
- _____ 3. Used to smoothen the surface of wood.
- _____ 4. Used to cut shapes in plywood.
- _____ 5. Used for wood carving.

Exercise 3

Provide the missing word which completes each of these maintenance steps, both specific and general, for tools.

- 1. _____ the tools properly when these are not in use.
- 2. _____ the tools after use.
- 3. Use a clean, dry _____, as much as possible, to clean tools after use.
- 4. Inspect the _____ of a hammer before and after use.
- 5. Always keep the _____ of a saw sharp.
- 6. Wipe _____ on metal parts regularly, to keep these from rusting.
- 7. For wooden smooth planes, _____ the parts after using.



SUMMARY

Woodworking is all about creating items out of wood. You need to use tools to do so, so you also need to know how to properly care for, use, and be safe around tools.



LESSON OUTPUT

Learner will choose 5 tools and demonstrate how to properly use these, in a video presentation that's no more than a minute long.

Lesson Output Rubrics

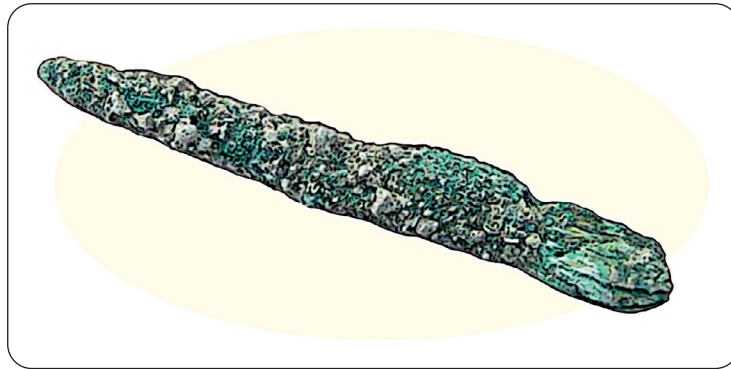
CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The student presented five different tools and how these are used within one minute.	The student presented four different tools and how these are used within one minute.	The student presented three different tools and how these are used within one minute.	The student presented two different tools and how these are used within one minute.	The student presented one tool and how it is used within one minute.	
2. Creativity	The student's output made good use of video, audio, and text which gave sense to it and made it pleasing to watch.	The student's output made good use of video and audio, which gave sense to it and also made it easy to watch.	The student's output was artistic but not clear in delivery.	The student's output was plain yet only a few things were easy to understand.	The student did not attempt to be creative in any way in delivering the content of the project.	
3. Promptness	The project was completed two or more days ahead of the given deadline.	The project was completed one day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed one to two days after the given deadline.	The project was completed three days after the given deadline.	
TOTAL						

Lesson 3

Metal Works

TRIVIA

The oldest metal implement discovered was a 7,000-year-old copper awl in Israel. The metal of the awl was originally mined a thousand kilometers away, which required a major feat of transportation during those days.



LEARNING OUTCOMES

At the end of the lesson, you are expected to be able to:

1. Define metalworking.
2. Identify the safety rules applicable when working with metal.
3. List some products made from metalworking.



ENGAGE

The teacher will present slides of different kinds of metalworking.



EXPLORE

What do you know about metalworking?

Check the appropriate column.

QUESTIONS	YES	NO
Are you familiar with metalworking?		
Have you worked with metal before?		
Do you think working with metal is dangerous?		
At your age, are you allowed to work with metal?		
Is metal crafting easy to do?		



RESEARCH

1. Materials used to clean metal-crafted items.
2. How to maintain metal-crafted items.
3. What metalworking is about.



EXPLAIN

Definition of terms

Metal – a solid material which is extracted from rocks as ores, that is generally lustrous and which is a good conductor of both heat and electricity; can also be hammered or stretched into different shapes without breaking.

Protocol – a standard set of rules.

Toxic – poisonous.

Equipment – tool items which are needed for a specific purpose.

Authorize – to officially permit something.

The process of creating something out of metal is called metalworking. According to historical records, metalworking began when humans first shaped soft metals like

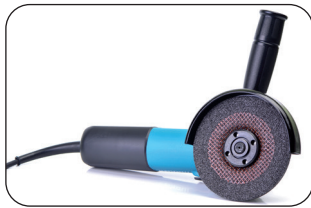
gold with simple hand tools to turn them into useful or decorative items. The bolo, which people today use for chopping bamboo and coconuts, is made of iron.

This lesson will tackle the basics of metalworking, including safety measures and common metal craft items.

What is Metalworking?

Metalworking is the process of creating a useful object out of metal. Nowadays, power tools are used to work with metal, because, though malleable, metal is still a tough material to work with. There are metalworking procedures which use specific tools for cutting, bending, jointing, and smoothing metal.

These are some of the basic power tools used in working with metals.



Grinder



Welding Machine



Electric drill



Bench vise

These tools are best used and operated by skilled professionals, but you can use these with supervision as a student.

You may already have an idea of what metal looks like. The images that follow show what some common metals used in metalworking look like in their raw form.



Gold



Silver



Aluminum



Copper

Characteristics of Metals

Different kinds of metal need to be used for different situations. A copper wire works well as a conductor of electricity, for example, but it would not do well as the frame of a car or an airplane because it is too soft for that purpose. When working with metals, you need to consider the following characteristics of the material:

1. **Malleability** – how malleable a metal is means how easily it can be hammered and pressed. Gold is the most malleable metal around.
2. **Fusibility** – a metal or metal alloy with a melting point of below 150° C is fusible if it can be used to join, or fuse, with another metal object. One example of such is solder, which is a mixture of tin and lead and is used to attach copper wire onto a circuit board.
3. **Ductility** – a ductile metal can be pulled thinly into wires.

Safety Rules when Working with Metal

Safety must be prioritized in all industrial activities. The following are safety rules you need to follow when working with metal:

1. Wear appropriate gear and clothing. Metal working can be dangerous because of the equipment used, which might be electrical in nature and sharp. The material being worked on might also emit hot flying embers and fumes when it comes in contact with cutting tools. The following images are the safety equipment and clothing applicable for metalworking.



Face mask



Respirator



Welding helmet



Safety eye-
goggles



Coveralls



Safety boots



Heavy duty gloves

When using any safety item, it is best to remove all jewelry and to not wear loose clothing, since these could snag on the equipment you use.

2. Organize your tools and equipment. A metalworking shop needs a wide space because of the equipment and tools used to work metals. Keep tools and the various pieces of metal used in their proper places.



3. You must know and follow safety rules and protocols to avoid accidents.
4. Handle liquid materials carefully, since just about all of the liquids used in metalworking are poisonous. Make sure that the solutions needed for metalworking have a proper place of storage. Put up safety signs and symbols on every item of toxic material in the shop. Authorize an able and knowledgeable person to manage fluids. Here are some common signs that must be posted.



5. Use the proper lifting technique. Metalworking uses heavy equipment, tools, and materials. Using the wrong lifting technique could result in a slipped disc, which is a potentially painful, lifelong condition.



6. Implement and follow safety rules. The safety rules are there for a reason. Anyone who breaks a rule should be held accountable for anything that happens because that rule was broken.
7. Always check any equipment you have used for any damage before storing or using these. Do not use faulty equipment since they can be prone to accidents. Regularly check equipment and tools that are seldom used.

Here are some other signs that can be posted in a metalworking shop.



Reminders

- Rules are rules. They are there for a good reason.
- Prioritize your safety when working with metals.

Common Metalcraft Items

Metals can be made into many different kinds of objects. Some of these are:

- **Jewelry.** These items can be made of gold, silver or bronze.



- **Ornamental objects.** These objects are primarily meant to be displayed.



- **Furniture.** These objects are intended to be used by people.



Receiving furniture



Dining furniture



Bed frame



EXERCISES

Exercise 1

Match column A with column B. Choose the letter of the correct answer.

A		B	
_____1.	Metal	a.	official procedure
_____2.	Authorize	b.	poisonous
_____3.	Equipment	c.	an item used for a specific purpose
_____4.	Toxic	d.	something which is officially permitted
_____5.	Protocol	e.	a kind of solid material which is extracted from rocks as ore

Exercise 2

Enumerate what is being asked for.

1. 7 safety rules to follow when working with metals.

- a. _____
- b. _____
- c. _____
- d. _____

- e. _____
- f. _____
- g. _____

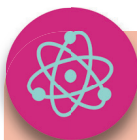
2. 3 common characteristics of a metal.

- a. _____
- b. _____
- c. _____

Exercise 3

Identify what the following safety symbols mean.





SUMMARY

The process of creating something out of metal is called metalworking. Many decorative and useful items can be made with metalworking. Because of the equipment and material used, metalworking is not an easy activity and requires safety procedures. Follow the rules and protocols when metalworking, recognize the warning signs, and wear proper clothing and gear when metalworking.



LESSON OUTPUT

The student will take pictures of at least five metal-worked items inside their house. They will create a slideshow out of these and include any information that might be relevant. You will be graded according to the following rubrics.

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The student presented at least 5 metal-worked items and included comments on what these are used for, and how these were made.	The student presented at least 4 metal-worked items and included comments on what these are used for.	The student presented at least 3 metal-worked items. Basic comments about these were included.	The student presented only 2 metal-worked items. Neither comments nor insights were provided.	The student presented only 1 or 0 metal-worked item which was labeled but with no other information provided.	
2. Creativity	The student's output made use of unconventional media and materials which made it pleasing to look at.	The student's output used common media used creatively but still made the content easy to understand.	The student's output was artistic but not clear in delivery.	The student's output was plain yet only a few things were easy to understand.	The student did not attempt to be creative in any way in delivering the output.	
3. Promptness	The project was completed 2 or more days ahead of the given deadline.	The project was completed 1 day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed 1 day after the given deadline.	The project was completed 2 or more days after the given deadline.	

TOTAL

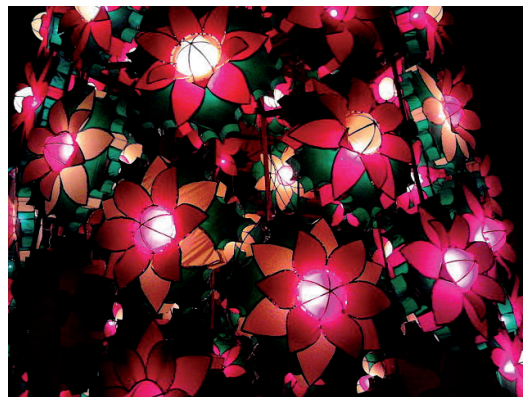
Lesson 4

Electrical Works

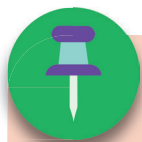
TRIVIA

Did you know that the traditional Filipino *parol*, or Christmas lantern, has been upgraded in so many ways which are electrical in nature? In the province of Pampanga, *parol* makers have made ingenious use of electrical know-how to make the traditional Christmas stars more festive and brighter than they have ever been.

Parol makers are now building lanterns with many colored lights that blink on and off and even sync to music, thanks to the magic of electrical circuits and the creativity of the people who make them.



<https://commons.wikimedia.org/w/index.php?search=pampanga+parol&title=Special:MediaSearch&go=Go&type=image>



LEARNING OUTCOMES

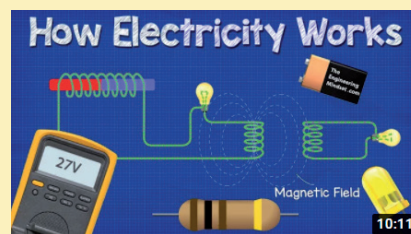
At the end of the lesson, you are expected to be able to:

1. Define electricity and electrical works.
2. Identify safety rules when working with electricity.
3. List products that use electricity.
4. Create a plan for a project that uses electricity which is designed with different materials found in the community.



ENGAGE

Watch this video: How ELECTRICITY works – working principle



<https://www.youtube.com/watch?v=mc979OhitAg>



EXPLORE

True or False? Write TRUE if the statement is correct and FALSE if it is not.

- _____ 1. It is best to make a plan first before starting a project or task.
- _____ 2. To prevent accidents, you should first study the equipment that will be used in the project.
- _____ 3. It is important to have knowledge about electrical activities.
- _____ 4. In electrical jobs, we repair broken chairs, tables and doors.
- _____ 5. Electricity is essential because almost all the appliances at home use electricity.



RESEARCH

1. Where does electricity come from?
2. What are electrical works?
3. What are the things or products that use electricity



EXPLAIN

Did you know that electricity can move almost as rapidly as light which travels at 186,000 miles per second? It is able to do so as it moves as an electromagnetic wave through a conducting medium such as copper wire. In this lesson, you will learn more about electricity and electrical works.

Definition of terms

Electricity is the presence or flow of an electrical charge.

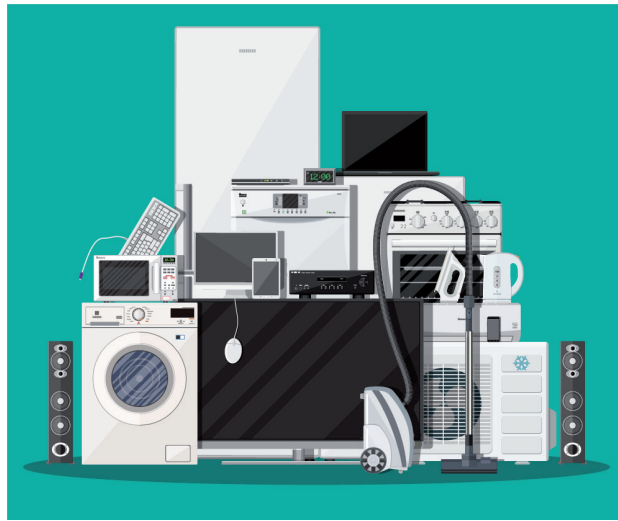
Atom is a tiny particle that is made of protons, electrons, and neutrons.

Proton is the particle which has a positive energy charge.

Electron is the particle with a negative energy charge.

Neutron is the particle with a neutral energy charge.

Look at the following pictures. What can you say about them?



Have you noticed that appliances, like laptops, cellphones, televisions, and refrigerators need electricity for them to be used? Have you ever wondered where the electricity comes from and what it can do? Let's find out.

What are Electricity and Electrical Works?

The modern world that we live in depends so much on electricity in order to make everything run. It's so common that we sometimes take it for granted—that is, until the lights go out.

Where does electricity come from? How does it get to our homes for us to use? Why does it exist in several forms like lightning, static electricity, and electromagnetic induction current?

Electricity begins with the **atom**, which is the **smallest particle of an element**. Everything in the universe is made up of atoms. Small as they are, atoms are made up of even smaller, or **subatomic**, particles. These are **protons**, particles with a positive electromagnetic charge, **neutrons**, which have a neutral charge, and electrons, which have a negative charge. Protons and neutrons are inside a structure called the **nucleus**, and electrons move around it constantly since they are attracted by the positive charge of the protons. An atom with an equal number of protons and electrons has a neutral charge.

These subatomic particles are held together by what is known as **electrostatic force**, which makes **particles of opposite charges attract each other, and particles with the same charge push each other away**. Electrostatic force makes the negatively-charged electrons move around the positively-charged protons in an atom, with the electrons nearest to the protons having the greatest amount of attraction, and those farthest being the easiest to lose.

Sometimes, there is enough electrostatic force to kick off electrons from an atom. These electrons will try to latch on to another atom, and another, and another. This chain of electrons jumping from one atom to another one also makes their charge move—and is what we know as **electricity**.

Forms of Electricity

Electricity comes in two forms: **static** and **current**.

Static electricity happens when there is a buildup of opposite charges or surfaces but are separated by an **insulator** (an object that electricity cannot pass through, or lets very little electricity pass through). However, the charge can get high enough to be able to cross the insulator.

Lightning is the best example of static electricity; electric charges build up inside clouds and on the ground. When it gets high enough, electrons travel across air (an insulator) and into the ground. This transfer happens with a high level of energy that we are able to see and hear it as lightning and thunder.

Meanwhile, current electricity is the type that comes from sources like batteries, powerplants, wind farms and solar farms, and is the kind used to power devices and appliances.

Electrical works is defined as the development, installation, and maintenance of an electrical wiring system in order to supply power to a building and electrical equipment such as home appliances.

Knowledge and Skills in Electrical Work

Working with electricity requires knowledge and skills. Without these, you can get into big trouble as electricity is very dangerous and is not something to be trifled or played with. At your age, you will need your guardian's approval and supervision for you to do electrical work. Do not do it alone and remember to put safety first.

The following are skills and qualities that a person doing electrical work should have.

1. Ability to focus for a very long period of time.
2. Ability to follow instructions well.
3. Able to pay close attention to details.
4. Physically fit
5. Have problem solving skills

Safety Precautions

Why is it important to keep electric equipment safe?

It is important to take care of different electric equipment and materials so that they are still safe to use, and for them to keep their quality.

The following are the safety precautions for electrical equipment:

1. Always keep them clean and dry.
2. Use them properly to avoid accidents.
3. Make sure that they are always prepped for use.
4. Read and understand the user manual before using any electrical device.
5. Use the appropriate voltage for each electrical appliance.
6. Make sure they are not defective.
7. Handle them with due and proper care.
8. Clean them every after use.
9. Store them properly in a safe place.

The following are the safety rules applicable when using and working with electricity.

1. Avoid contact with live electrical circuits.
2. Treat all electrical devices as if they are all powered on to avoid shock.
3. Unplug all devices from the power source before repairing electrical equipment.

4. Use electrical tools with non-conducting handles.
5. Always be sure that your hands are dry. Wear non-conductive electrical gloves.
6. Do not wear loose clothes while doing electrical work.
7. Do not drink while doing electrical work. You might spill your drink and cause an accident.
8. Do not put flammable liquids near the electrical equipment.

Tools and Materials Needed for Electrical Works

The use of electrical tools and equipment helps lighten the load of work and it makes the job easier. The following are the most common tools and materials used in electrical works.

Phillips Screwdriver – for tightening and loosening screws with a cross-shaped head slot.



Stubby screwdriver – used to tighten and loosen screws positioned in a tight space not within the reach of a common screwdriver.



Flat head screwdriver – also used to tighten and loosen screws. Its tip is flat and wide.



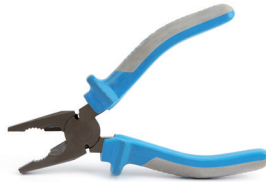
Claw hammer – used to hammer and remove nails.



Longnose pliers – use to hold and cut thin cable wires.



Combination pliers – used to hold and cut wires, cables, and small nails.



Bench vise – used to hold and secure things in place.



Hacksaw – used to cut iron rods and pipes for electrical wirings.



Pipe cutter – used to cut electrical pipes.



Side cutting pliers – used to cut big and small kinds of wire.



Gimlet – used in boring holes into wood for electrical wires.



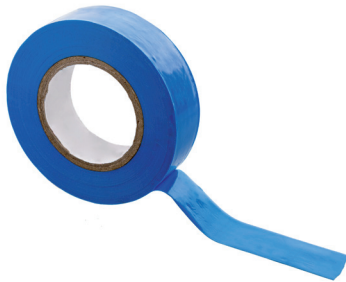
Hand drill – used for making holes in wood for electrical wiring.



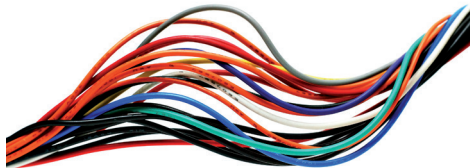
Portable electric drill – used to make small holes in metal or concrete partitions for wiring.



Electrical tape – used to wrap peeled or flayed cable wires.



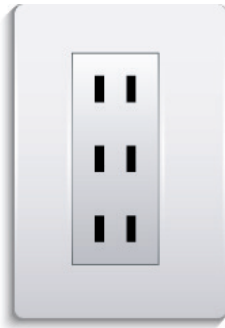
Electrical wire – a medium or device that conducts electricity.



Switch – used to turn lights and/or electricity on or off.



Female outlet – the male plug is inserted here. It is usually attached on a wall or the end of an extension cord



Male plug – inserted into the female outlet for electricity to flow through.



Electrical Safety Gloves – insulated gloves to prevent electrocution.



Electrical Safety Goggles – specialized goggles to prevent eye injury from sparks and molten material as a result of short circuit explosions. These are especially important if the voltage dealt with is household standard.



Methods in Using Electrical Equipment

1. **Screwdriver**

Grip the handle and turn it towards clockwise to tighten the screw; counterclockwise if you want to loosen it.

2. **Hammer**

Hold the handle of the hammer properly and position the head over where you want to hit, then hit it with just enough force

3. **Pliers**

Hold the pliers using the insulated handles to prevent electric shock in case the pliers touch a live wire.

4. **Hacksaw**

Secure the blade properly and tightly on both ends. Align it with the item to be sawed which should be held in place by a clamp. Hold the handle with one hand and the front of the hacksaw with the other hand move the hacksaw in a sawing motion pushing and pulling with both hands.

5. **Portable Electric Drill**

Check if the batteries are working or if the drill is plugged in. Attach the drill bit. Hold the drill properly with both hands—one on the handle and the other one on the frame of the drill.

Steps/Procedure in Creating an Extension Cord

In this part of the lesson, we will make an extension cord.

NOTE: DO NOT DO THIS ALONE. Make sure you are supervised by a guardian or professional.

Materials needed:

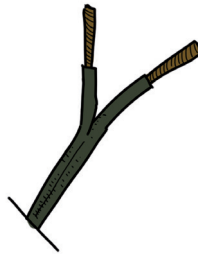
- Extension wire (at least 3 meters)
- Female Outlet Casing
- Male Plug
- Cutter
- Safety Goggles
- Screwdriver
- Longnose pliers
- Side cutting pliers

Steps in Making an extension cord:

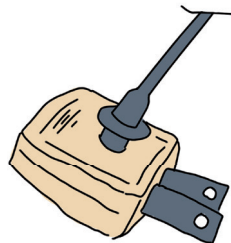
1. Prepare the materials needed.



2. Separate the wires and their tips. Measure the wire with 1 inch in length.



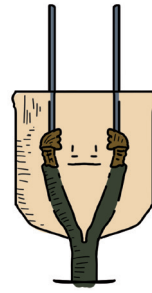
3. Remove the screws of the male plug.



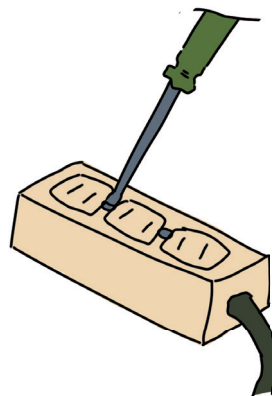
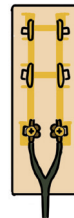
4. Peel the ends of the cord and unsheathe the tips using a wire stripper or cutter. Cut the pair of exposed wires to even the lengths and twist them separately if the wires are not the solid kind and made up of many thin wires (called stranded wires). Do the same for the other end of the cable.



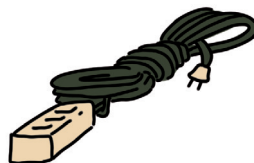
5. Using the screwdriver, open the casing of the plug and then insert them into each of the terminal holes of the plug. Twist them to secure them. Make sure that the opposing wires do not touch the other to avoid a short circuit (when an electric current travels through a different path with very little resistance instead of the intended one, often causing excessive current). Shorts can cause explosions, which can spray burning insulation and molten metal, and cause fires.



6. Take the outlet box and open it. Get the other end of the pair of wires, twist the wire and screw them in place inside the outlet.
7. Tighten the pinning screws with a screwdriver.
8. Check if the attachment is correct and that the split ends have no touching strands.
9. Screw the cover on properly.



10. This is the finished output of the project.

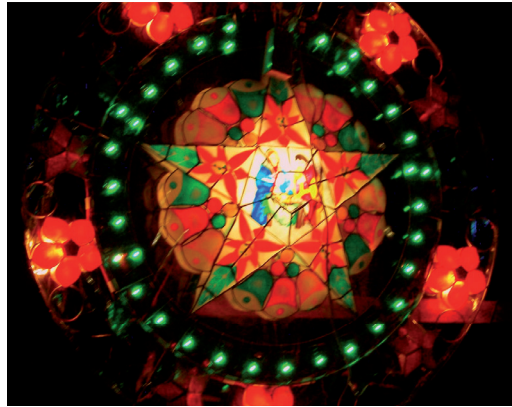


Safety Precautions in Making an Extension Cord

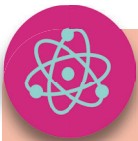
1. Do not make the project without the supervision of an expert or knowledgeable guardian.
2. Use safety equipment such as insulated tools protective goggles, and gloves.
3. Extreme care should be observed when using pliers and cutters as these can pinch or slice flesh and cause extreme pain along with injury which may require medical attention.
4. The split ends of the cable must not touch each other, or a short circuit will happen.
5. Check the connections with the help of someone knowledgeable in electrical devices before closing the casing of both the plug and outlet enclosure.
6. Test the product with care and with the supervision of an expert.
7. Have a first aid kit ready with a balm to treat deep flesh burns and a non-conductive item like a wooden pole to push a victim of electrocution away from a power source.
8. Have a fire extinguisher that's standard for electrical devices handy. You can identify it with its green tank.

In Business

Electrical work involves knowledge and skill that allows us to exhibit creativity in the construction and innovation of electrical devices. Proper application of such know-how as a service can be a money-earner as not many people know how to deal with or are afraid of handling electrical devices or fixtures in the house.



On the other hand, you can make electrical products such as lighted Christmas lanterns (parol) which are safe to use and guaranteed to last.



SUMMARY

Electricity is the presence and flow of an electrical charge and manifests as lightning, static electricity, and electromagnetic induction current. Electrical Works is defined as the development, installation, and maintenance of an electrical wiring system in order to supply power to a building and electrical equipment such as home appliances. The use of electrical tools and equipment helps lighten the load of work and makes the job easier, but safety precautions should be considered first and foremost.



EXERCISES

Exercise 1

Identification. Write the correct answer in the space provided.

- _____ 1. Used to hold and cut thin cable wires.
- _____ 2. These are negatively charged.
- _____ 3. The development, installation, and maintenance of an electrical wiring system in order to supply power to a building and electrical equipment such as home appliances.
- _____ 4. These possess a neutral charge.
- _____ 5. This is used to tighten and loosen screws.
- _____ 6. This is the presence and flow of an electrical charge.
- _____ 7. Used to cut iron rods and pipes or wiring.
- _____ 8. These are positively charged.
- _____ 9. Used to attach and remove nails.
- _____ 10. Is a tiny particle that are made up of protons, electrons, and neutrons.

Exercise 2

True or False? Write TRUE if the statement is correct and FALSE if it is not.

- _____ 1. Avoid contact with live electrical circuits.
- _____ 2. Clean every equipment after usage. Make sure to put each in a proper and safe place.
- _____ 3. Do not check the equipment that are to be used.
- _____ 4. Use the tools with a nonconducting handle.
- _____ 5. Treat all electrical devices as if they are not powered on to avoid shock.
- _____ 6. Do not put flammable liquids near electrical equipment.
- _____ 7. Read and understand the manual after using any electrical appliances.
- _____ 8. Do not wear loose clothes while doing electrical work.
- _____ 9. Plug the power source before repairing the electrical equipment.
- _____ 10. It's okay that the materials to be used are defective.



LESSON OUTPUT

Create a simple extension wire, the making of which is documented in a slideshow presentation with no more than ten slides. The project should have the following requirements:

- Name of the project
- Purpose
- Materials Needed
- Design
- Steps and Procedure

NOTE: Do not do this project alone. Ask for your guardian's supervision.

Lesson Output Rubrics

CRITERIA	5	4	3	2	1	POINTS
1. Content/ Functionality	The output is what is desired, is free of mistakes, is neatly or clearly presented and works as expected.	The output is free of mistakes and is what is desired / works as expected, but the presentation isn't neat or clear.	The output is free of mistakes and is what is desired / works as expected, but the presentation isn't neat or clear.	The output is what is desired / works as expected, but there are some mistakes visible. The presentation is messy.	The output isn't what is desired / doesn't work as expected.	
2. Creativity	The approach of the student in the presentation is unique and fulfills the requirements of the project.	The approach of the student in the presentation uses standard elements but the content still fulfills the requirements of the project.	The approach of the student in the presentation uses regular templates but the content still fulfills the requirements of the project.	The approach of the student in the presentation uses secondhand content which are acknowledged and partly fulfills the requirements of the project.	The approach of the student in the presentation uses rehashed content.	
3. Promptness	The project was completed 2 days ahead of the given deadline.	The project was completed 1 day ahead of the given deadline.	The project was completed by the given deadline.	The project was completed 1 day after the given deadline.	The project was completed 2 or more days after the given deadline.	

TOTAL

