



What Is This Module About?

Have you heard anyone say that mice come from pieces of rags and paper placed in dark corners? Our folks used to believe this, but modern knowledge has corrected this false belief. Because of science and technology, we are now able to understand where mice really come from.

Traditional beliefs like the one mentioned above are part of our rich and colorful culture. These beliefs are proof that our ancestors wanted to explain natural phenomena even without the aid of modern science and technology.

However, some of these beliefs are false and misleading. This module aims to give the scientific explanation of some traditional beliefs as well as illustrate cause-and-effect relationships in nature in order for us to see the truth behind natural phenomena.

This module is divided into two lessons:

Lesson 1 – *Explaining Natural Phenomena*

Lesson 2 – *Cause and Effect in Nature*



What Will You Learn From This Module?

After studying this module, you should be able to:

- ◆ explain natural phenomena scientifically instead of accepting folklore as an explanation; and
- ◆ illustrate cause-and-effect relationships in nature.



Let's See What You Already Know

Before you start studying this module, answer this simple test first to determine how much you already know about our topic. Encircle the letter of the correct answer.

1. It is ideal to plant during a full moon because _____.
 - a. the good spirits are out in the rice fields to help the farmers
 - b. the moon's gravity helps the plants absorb moisture better
 - c. the farmers can see better because of the light from the moon
2. The practice described in Question No. 1 is called _____.
 - a. lunar agriculture
 - b. moon ritual
 - c. working with good spirits
3. An eclipse happens when _____.
 - a. an angry demon tries to eat the sun or moon
 - b. the people do not make an offering
 - c. the moon lines up exactly with the earth and the sun
4. Rain is _____.
 - a. precipitation in liquid form
 - b. the tears of a sad god
 - c. the result when a person with a bad voice sings
5. Rain plays a major role in the _____.
 - a. vapor cycle
 - b. water cycle
 - c. heat cycle
6. The moon is the earth's one and only _____.
 - a. friend
 - b. satellite
 - c. planet
7. A solar eclipse occurs when the moon is between the _____.
 - a. earth and sun
 - b. earth and Jupiter
 - c. sun and Mercury
8. During a lunar eclipse, the moon's usual color is _____.
 - a. light blue
 - b. dark brown
 - c. deep-coppery orange

9. Some water from rivers, lakes, streams, wetlands and oceans evaporate because of _____.
- a. the air around us
 - b. the sun's heat
 - c. the moon's light
10. Water vapor in the air condenses into clouds. When it can no longer hold the moisture, it falls to the ground as _____.
- a. rain
 - b. clouds
 - c. air

Well, how was it? Do you think you fared well? Compare your answers with those in the *Answer Key* on page 29.

If all your answers are correct, very good! This shows that you already know much about the topics in this module. You may still study the module to review what you already know. Who knows, you might learn a few more new things as well.

If you got a low score, don't feel bad. This means that this module is for you. It will help you understand important concepts that you can apply in your daily life. If you study this module carefully, you will learn the answers to all the items in the test and a lot more! Are you ready?

You may now go to the next page to begin Lesson 1.

Explaining Natural Phenomena

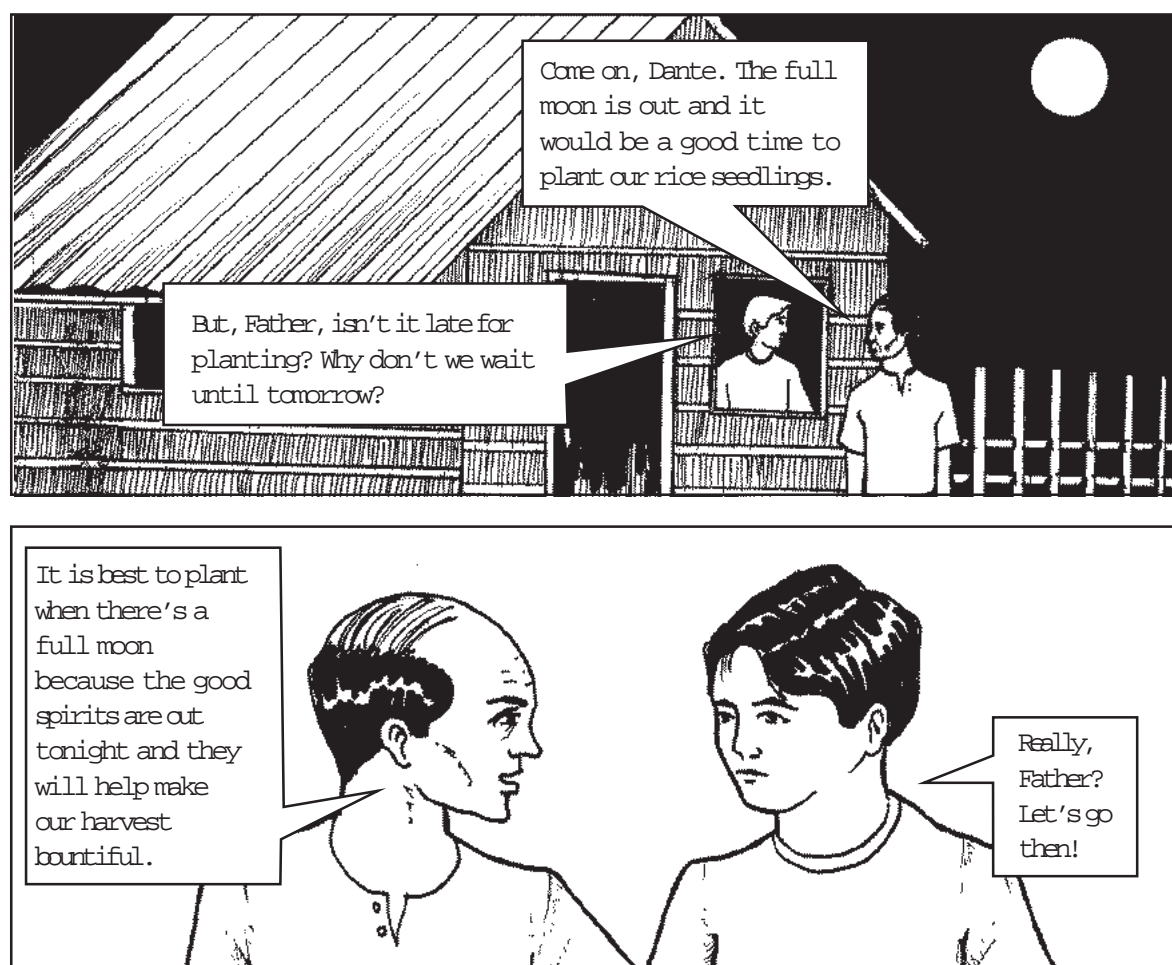
Perhaps you have murmured the expression “*tabi tabi po, makikiraan lang*” while passing by an old tree or crossing a rice field. Our elders taught us to say this expression so the dwarves, elves, fairies or spirits believed to be living in the tree or rice field would not hurt us. This practice might have started when someone passed by a tree or crossed a rice field and then got sick. Without the modern knowledge and technology we have today, our ancestors made up their own explanation that the unknown beings got angry with the person, and so he got sick.

In this lesson, we will try to give scientific explanations for some natural phenomena to remove some common misconceptions about them.



Let's Read

Read the dialogue below.





Let's Think About This

What can you say about what you have just read? Do you agree that it is best to plant when there's a full moon? Why? You may write your answers below.

Compare your answers with those in the *Answer Key* on pages 29–30.



Let's Learn

Do you know what **natural phenomena** means? These are observable events or occurrences in nature. Some examples are rain, typhoon, flood, eclipse, earthquake, volcanic formation, lightning and thunder, and many others.



Let's Try This

Do you know other examples of natural phenomena? If you do, you may write them below.

Compare your answers with those in the *Answer Key* on page 29.



Let's Read

It is true that it's best to plant when there's a full moon. Do you know why? According to our elders, good spirits are out in the fields when there's a full moon and they help make the farmers' harvest a bountiful one. However, there is a scientific explanation why it is ideal to plant when there's a full moon.

The movement of the moon affects the rise and fall of the ocean tide. Aside from large bodies of water, the movement of the moon also affects small bodies of water on earth. It is said to affect even the water within living things like crops and plants.

Some farmers practice **lunar agriculture** or moon planting.

This is a method wherein the farmers choose the correct phase of the moon in which to plant, weed, cultivate, and harvest their crops. During full moon, the combined gravitational pull of the moon and the sun is at its strongest. Thus, the pull on bodies of water is also at its strongest at this time. That's why there is high tide during the full moon. And that's why planting crops during a full moon is advisable — the plants easily take up water because of the moon's (and sun's) gravitational pull.



Some farmers may believe that planting during a full moon is advisable because of the good spirits. What they don't know is that they're practicing a very scientific method of planting.



Let's Try This

Find the words listed on the next page in this word puzzle. The words may be found horizontally or vertically.

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N | A | T | G | O | O | D | S | P | I | R | I | T | S | O | O | N |
| P | H | E | N | O | M | E | N | R | I | T | S | P | C | U | L | T |
| P | L | A | N | T | I | G | L | U | A | N | R | J | I | J | E | F |
| N | A | T | U | R | A | L | P | H | E | N | O | M | E | N | A | L |
| O | R | U | R | W | J | F | U | L | L | M | O | O | N | E | D | Z |
| T | L | U | N | A | R | A | G | R | I | C | U | L | T | U | R | E |
| M | W | A | T | T | E | R | S | C | I | E | N | T | I | P | I | R |
| A | E | F | E | E | C | T | F | B | H | U | I | R | F | J | I | R |
| G | R | A | P | R | P | L | A | N | T | E | R | G | I | D | U | R |
| R | P | L | A | N | T | I | N | G | C | U | R | S | C | E | L | L |

- ◆ natural phenomena
- ◆ good spirits
- ◆ full moon
- ◆ lunar agriculture
- ◆ water
- ◆ planting
- ◆ scientific

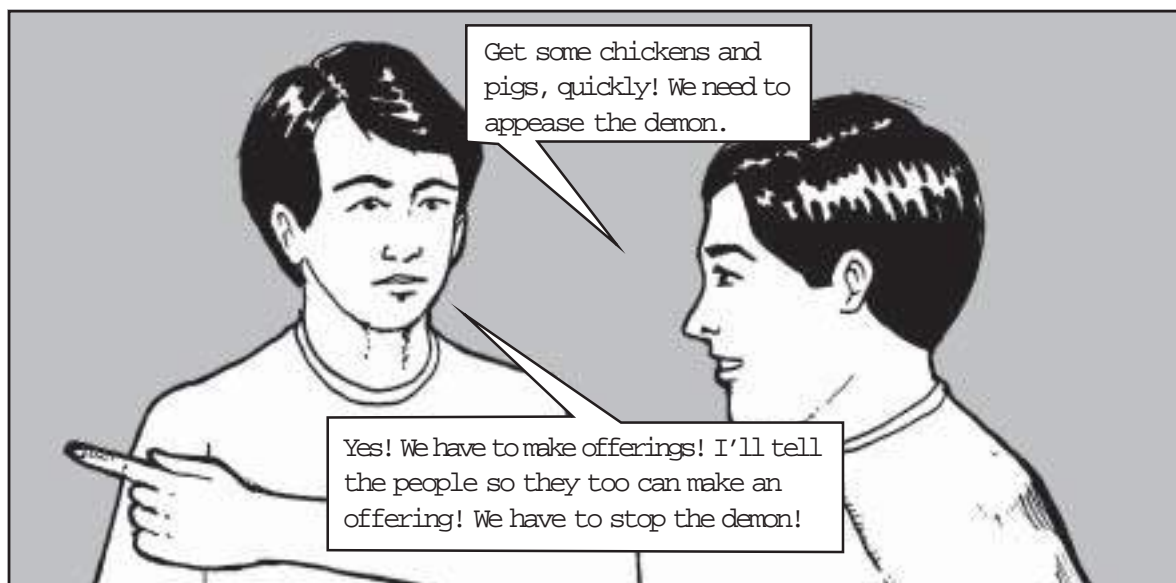
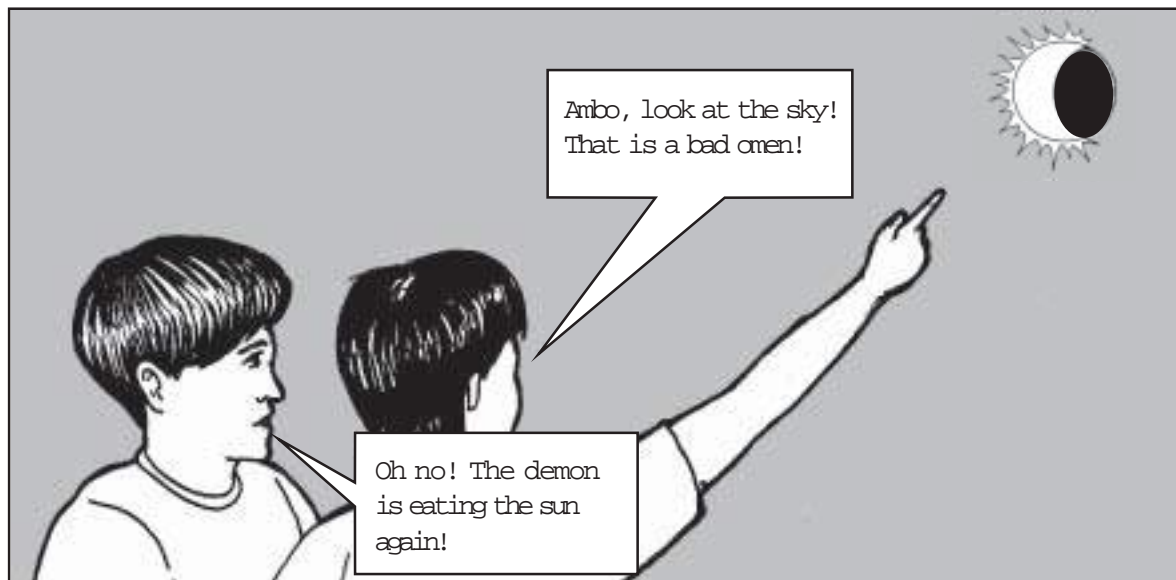
Were you able to find them all? Compare your answers with those in the *Answer Key* on page 30.

If some words are new to you, you can look up their meaning in the *Glossary* on page 35.



Let's Read

Read the short dialogue below.





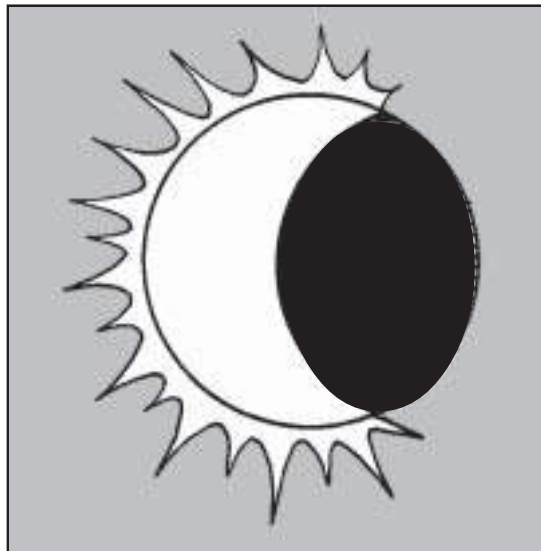
Let's Think About This

Do you know what Teban and Ambo were talking about? Write your answer in the spaces below.

Compare your answers with those in the *Answer Key* on page 30.



Let's Learn

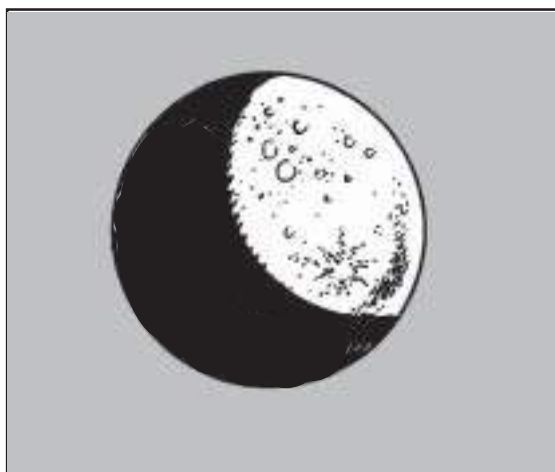


Solar Eclipse—Eclipse of the Sun

Solar Eclipse

An *eclipse* is another example of a natural phenomenon. There are two kinds of eclipse. A **solar eclipse** occurs when the moon blocks the sun's light from a small portion of the earth. This is shown in the illustration above.

When this eclipse occurs, the sun looks like it is disappearing or being covered with a dark shadow. As a result, the sky may grow dark, as if it were nighttime. But the eclipse usually lasts for a few minutes only. Afterwards, the sun "reappears" and all is back to normal again.



Lunar Eclipse—Eclipse of the Moon

Lunar Eclipse

The other kind of eclipse is the **lunar eclipse**. This occurs when the moon passes through the earth's shadow. This type of eclipse happens during nighttime.

During the eclipse, the moon seems to disappear for a while. At times, only a part of the moon appears to be dark or covered with a dark shadow.



Let's Think About This

Do you know other folk beliefs about eclipses? Examples are, *the angry dragon is eating the sun (solar eclipse)* or *the blood of a dying god colors the moon (lunar eclipse)*. You may ask your parents, grandparents, neighbors and other elders if they know other folk beliefs about eclipses. You may write your answers below.

You can discuss your answer with your Instructional Manager or Facilitator.



Let's Learn

Because an eclipse does not happen very often, most people, especially in the rural areas, still believe the folklore about this natural phenomenon that we have read in the dialogue of Teban and Ambo. Our forefathers believed in spirits, demons, gods, fairies, etc. and they associated many natural phenomena with these supernatural beings.



Let's Try This

Do you still remember the difference between a solar and a lunar eclipse? If you do, write your answer in the spaces below.

When you are done answering, you can compare your answers with those in the *Answer Key* on page 30.



Let's Read

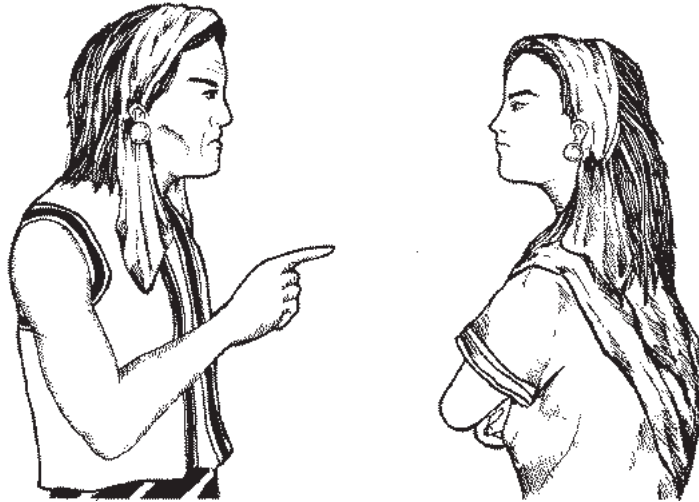
Rain is an example of a natural phenomenon. Let us take a look at how our forefathers explained rain. Read the story below.

Once upon a time, there were two gods who fell in love. They lived in the highest part of heaven. The groom was *Tungkung Langit* and the bride was *Alunsina*.

Tungkung Langit was an industrious, loving and kind god. Alunsina, on the other hand, was a lazy, jealous and selfish goddess. While Tungkung Langit was working, Alunsina would just sit by the window of their home, thinking about trivial things.

One day, Tungkung Langit told his wife that he would be away for a while to attend to some problems. Alunsina, being the jealous wife that she was, sent the sea breeze to spy on her husband. When Tungkung Langit discovered this, he was very angry. He confronted Alunsina about her lack of trust.





Alunsina resented the reproach and a quarrel between them followed. Tungkung Langit lost his temper and removed Alunsina's power, then drove her out of their home.

When Alunsina left, Tungkung Langit felt very lonely. He searched everywhere for her but could not find her. Up to this time, it is believed that Tungkung Langit lives alone in their home and at times, when he could no longer contain his grief, he cries and his tears fall to the earth as rain.



Let's Think About This

Do you know other folk beliefs about rain? You may ask your parents, grandparents, neighbors and other elders if they know other folk beliefs about rain. Write your answer in the spaces below.

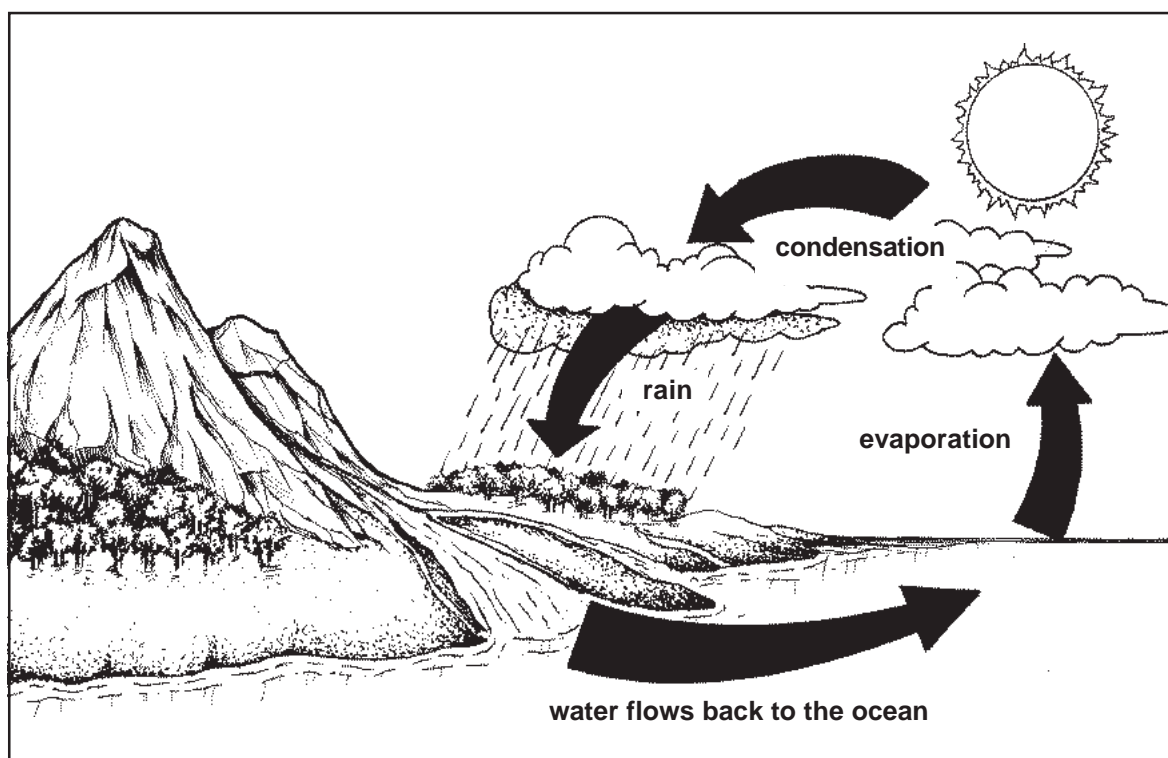
You may discuss your answer with your Instructional Manager or Facilitator.



Let's Read

Contrary to what our forefathers believed in, rain is not caused by the tears of Tungkung Langit, the sad god. Do you want to know the scientific explanation of rain? Read on then.

Rain plays a major role in the **water cycle**. As the sun heats the bodies of water, moisture evaporates and rises as invisible vapor in the atmosphere. As water vapor rises, it cools and eventually condenses. When it condenses, it becomes a liquid again or turns directly into a solid (ice, hail or snow). These water particles then collect and form clouds. As clouds form, winds move them across the globe, spreading out water vapor. When the clouds can no longer hold the moisture, they release it in the form of precipitation. This may be rain, snow or hail. Rain consists of droplets of water falling back to earth. It eventually returns to the ocean as it flows from the streams and rivers to begin the cycle again.



The Water Cycle



Let's See What You Have Learned

Before you finish studying this lesson, answer the simple test below in order to determine how much you have learned. Fill in the blanks with the correct answers.

1. Natural _____ are observable events or occurrences in nature.
2. Because of the lack of modern knowledge and technology, our _____ explained these events superstitiously.

3. It is best to plant when there's a full _____.
4. This practice is called lunar _____.
5. According to our ancestors, _____ help the farmers have healthy crops and a bountiful harvest.
6. Old folks believed that an _____ occurs when the demon tries to eat the sun.
7. A _____ eclipse occurs when the moon blocks the sun's light from a small portion of the earth.
8. When the moon passes through the earth's shadow, a _____ eclipse occurs.
9. According to our forefathers, rain is caused by the tears of _____, the husband of Alunsina.
10. Rain plays a major role in the _____ cycle.

Have you finished answering the test? Compare your answers with those in the *Answer Key* on page 30.

How did you fare? If you got a perfect score, congratulations! You are now ready to proceed to our next lesson.

If your score is 8 or 9, that's very good! You just need to review the items you missed.

However, if your score is 7 or lower, you need to review the whole lesson in order to understand it better.



Let's Remember

Our ancestors did not have the modern knowledge and technology we have today. As such, they used superstitions and their belief in unknown beings as explanation for natural occurrences. These stories and myths have made our culture more colorful. However, many of these beliefs about natural phenomena are false and misleading and we need to know their scientific explanation to understand them better.

You may now turn to the next page for Lesson 2.

Cause and Effect in Nature

Have you ever wondered about the rain? Or why an eclipse happens or how the full moon affects bodies of water on earth?

Rain, eclipse and full moon are three natural phenomena we have discussed in Lesson 1. We have identified some myths and superstitious beliefs that surround these natural events and we have also given their scientific explanation in order to remove the misconceptions about them.

In this lesson, we will take a closer look at the cause of these natural phenomena in order to understand better their scientific explanations.



Let's Try This

Do you still remember the scientific explanation why it is ideal to plant when there's a full moon? If you do, write your answer below.

Have you finished answering? Compare your answer with that in the *Answer Key* on page 31.



Let's Read

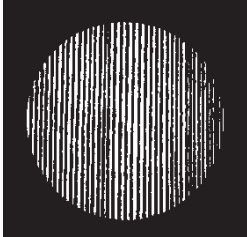
The moon is the earth's one and only satellite. The moon revolves around the earth and it appears as if it is changing shapes in the sky. This is caused by the different angles from which we see the bright part of the moon's surface. These different shapes are called the moon's **phases**.



Let's Try This

The moon passes through four major phases or shapes as it completes its revolution around the earth for 27.3 days. Try to match the names of the four major phases of the moon with the pictures below.

| Full Moon | Last Quarter | New Moon | First Quarter |
|-----------|--------------|----------|---------------|
|-----------|--------------|----------|---------------|

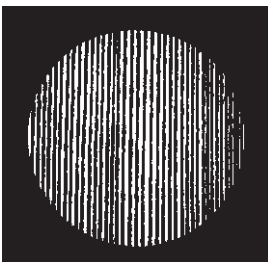


Have you finished answering? Let us continue reading to find out if you got the correct answers.



Let's Read

The moon passes through four major phases: new moon, first quarter, full moon and last quarter.



New Moon

The bright side of the moon faces away from the earth. At this time, the moon looks very dark.



First Quarter

The right side of the moon appears bright and the left side of the moon appears dark. The bright part of the moon gets larger and larger every day until it becomes a full moon.



Full Moon

The bright side of the moon faces the earth. The moon is a perfect circle and it is very bright.



Last Quarter

This is sometimes called the Third Quarter. The left half of the moon appears bright and the right side of the moon appears dark. The bright part of the moon gets smaller and smaller everyday and will continue to shrink until the new moon, appears to start the cycle again.

There are also in-between phases of the moon, as for example, when it assumes a crescent shape. In the days and weeks that follow, observe the phases of the moon at night and see for yourself the changing shapes.



Let's Learn

Do you know what *gravity* is? It is the force that pulls everything towards the ground. The force of gravity of the moon is almost $\frac{1}{6}$ that of the earth. During new moon and full moon, the gravitational pull of the moon, together with that of the sun, is at its strongest. This force affects the bodies of water here on earth. That is why we have high tide during this time. But the moon's (and sun's) gravity does not only pull large bodies of water; even small bodies of water are also affected. This means that the water within living things is also affected.



Let's Try This

Do you know why it is ideal to plant when there's a full moon? Write your answer below.

Read on to learn the correct answer.



Let's Learn

Lunar agriculture is choosing the correct phase of the moon under which to plant, weed, cultivate and harvest. The full moon is the ideal phase for planting crops because the combined gravitational pull of the sun and moon is at its strongest. This means that this pull will help the crops absorb the water from the roots, therefore ensuring healthy crops. The same is true during the new moon, hence this time is also good for planting crops.



Let's Try This

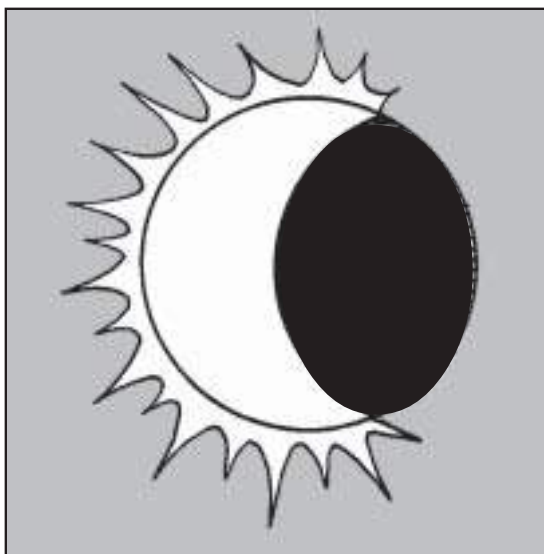
Try to match the words/phrases in Column A with the definitions in Column B by drawing a line to connect them. At any time, you may refer back to the previous discussions if you need help.

| A | B |
|--------------------|--|
| Full moon | also called the <i>third quarter phase</i> |
| New moon | these are affected by the moon's gravitational pull |
| Lunar agriculture | these are the different shapes of the moon |
| Gravity | the combined gravitational pull of sun and moon is at its strongest during this phase |
| Moon | the bright side of the moon faces away from the earth |
| First quarter moon | choosing the correct phase of the moon under which to plant, weed, cultivate and harvest |
| Last quarter moon | it's almost 1/6 of the earth's gravity |
| Bodies of water | the force that pulls everything towards the ground |
| Moon's gravity | the earth's one and only satellite |
| Phases of the moon | the right side of the moon appears bright and the left side appears dark |

How well did you fare? Were you able to get all the correct answers? Compare your answers with those in the *Answer Key* on page 31.



Let's Try This



Look at the picture carefully. Do you know what's happening with the sun? If you do, you may write your answer in the spaces below.

Do you want to know the answer? Continue reading on to find out.

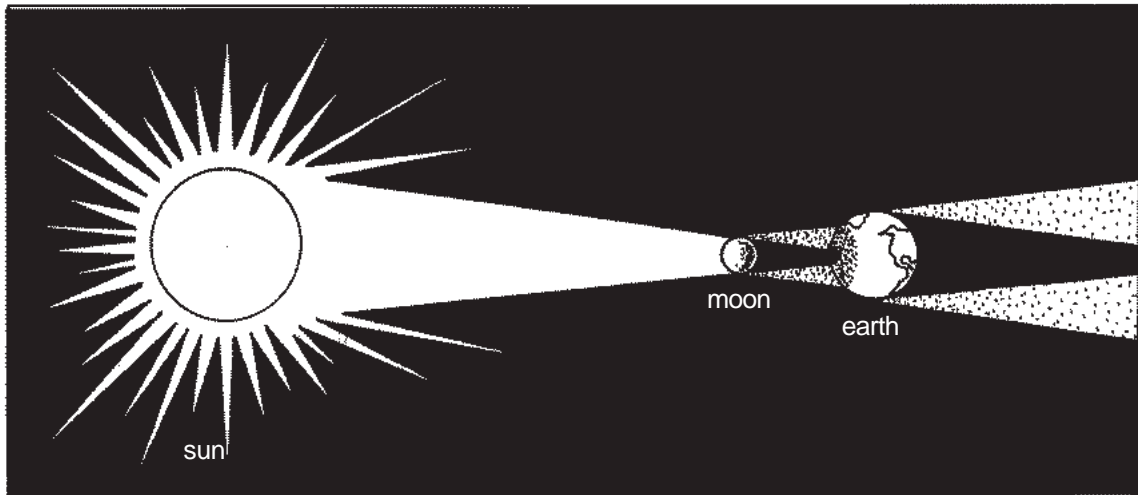


Let's Read

In Lesson 1, we have learned that an eclipse is a natural phenomenon. We have also discussed the two kinds of eclipse, the solar and lunar eclipse. Do you want to know what happens during an eclipse? Read on!

Solar Eclipse

The moon revolves around the earth for a total of 27.3 days. An eclipse occurs when the moon lines up exactly with the earth and sun. A solar eclipse occurs at new moon, when the moon is between the earth and sun.



Solar Eclipse

During a solar eclipse, the moon blocks the sun from a certain region of the earth. The sun then seems to disappear. The sky becomes dark and the temperature drops noticeably. A solar eclipse can last up to seven minutes in areas at or near the equator.



Let's Think About This

Have you witnessed a solar eclipse? What did it look like? How did you feel?

Compare your answers with those in the *Answer Key* on page 32.

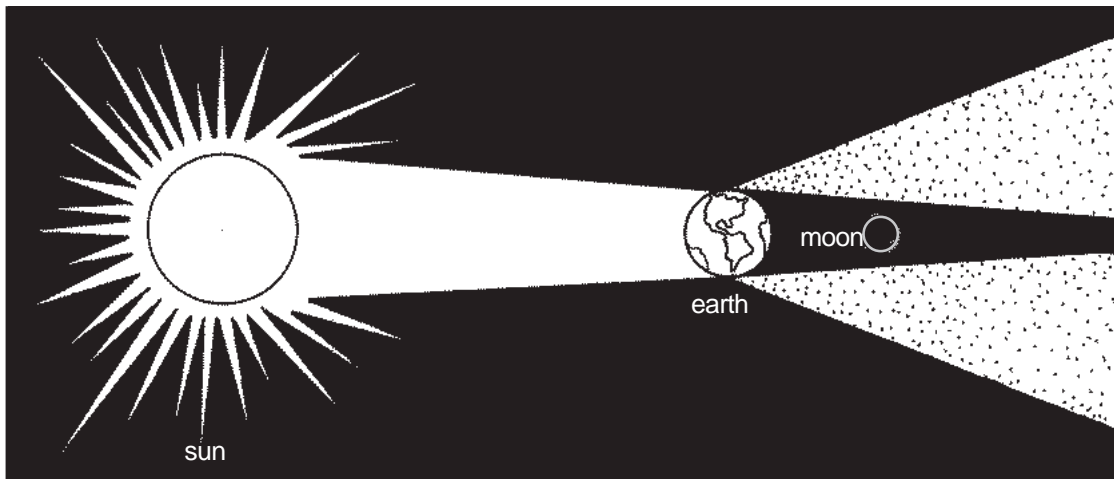


Let's Read



The earth and moon do not generate light; they only shine because they reflect the light of the sun. As a result, they cast a shadow into space in the direction away from the sun.

A lunar eclipse occurs when the moon passes into the shadow cast by the earth. Lunar eclipses take place during full moon. The moon does not become completely dark because some sunlight is scattered towards it. Usually, the moon's color becomes a deep coppery-orange color.



Lunar Eclipse



Let's Try This

Try to match the words/phrases in Column A with the definitions in Column B by drawing a line to connect them.

A

27.3 days

Solar eclipse

Lunar eclipse

Deep coppery-orange

B

total number of days of the moon's revolution around the earth

usual color of the moon during a lunar eclipse

occurs at new moon, when the moon is between the earth and sun

occurs at full moon, when the moon passes into the shadow cast by the earth

Have you finished answering? Compare your answers with those found in the *Answer Key* on page 32.



Let's Think About This

Where do you think rain comes from? When you were still a child, what did your parents tell you about the cause of rain? Write your answers below.

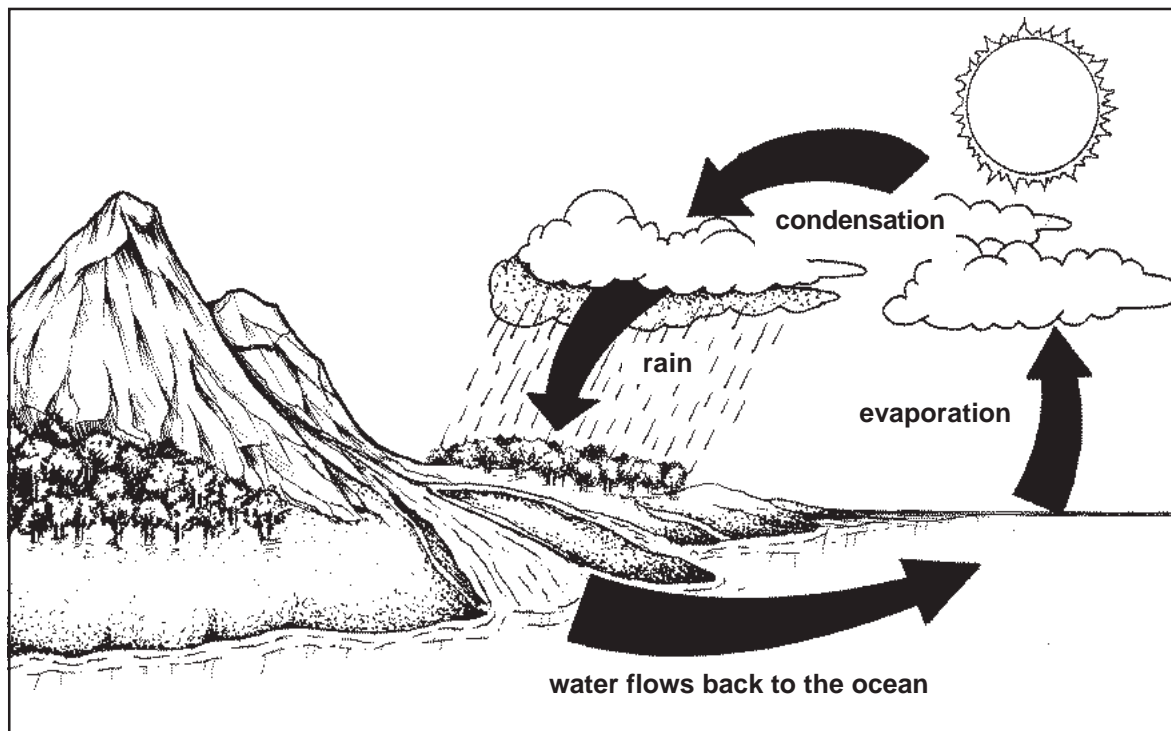
If you are finished, you can compare your answers with those in the *Answer Key* on page 32.



Let's Read

Do you know where rain comes from? According to legend, rain is caused by the tears of Tungkung Langit, the sad god. Others say that rain pours when a person with a bad voice sings.

However, these beliefs are false. Let us take a closer look at the cause of rain in order to understand this natural phenomenon better.



Water or Hydrologic Cycle

Rain is an important part of the **water cycle**. This is a process that gives man water to drink, fish to eat and weather conditions that help crops grow.

In this cycle, some water from rivers, lakes, streams, wetlands and oceans evaporates because of the sun's heat. The water vapor rises into the air and forms a cloud. This is repeated and the water vapor in the air condenses into clouds. When the clouds can no longer hold the moisture because of too much water vapor, it precipitates and falls to the ground as rain.





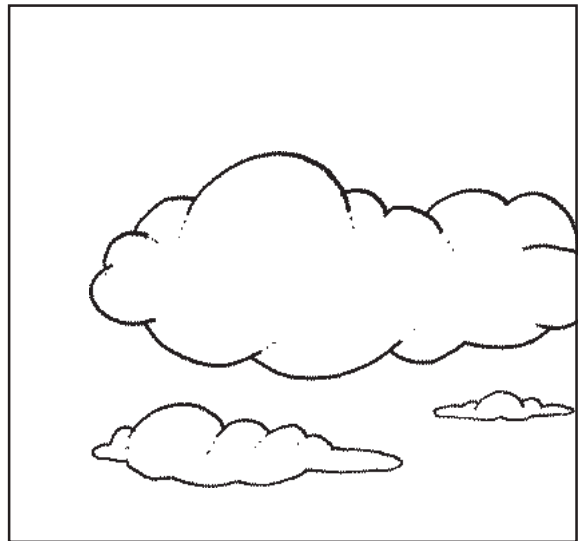
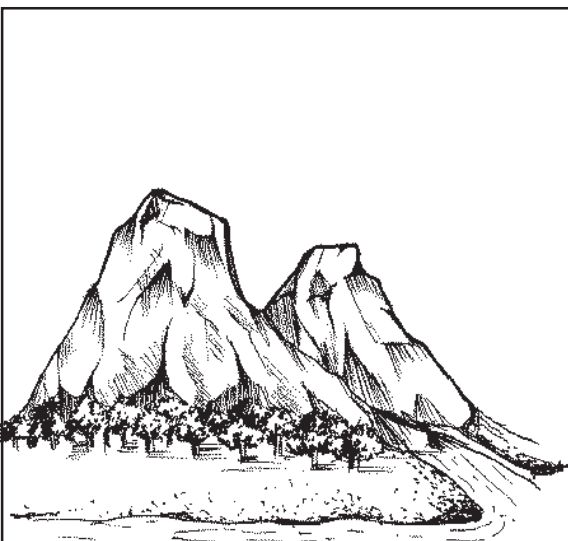
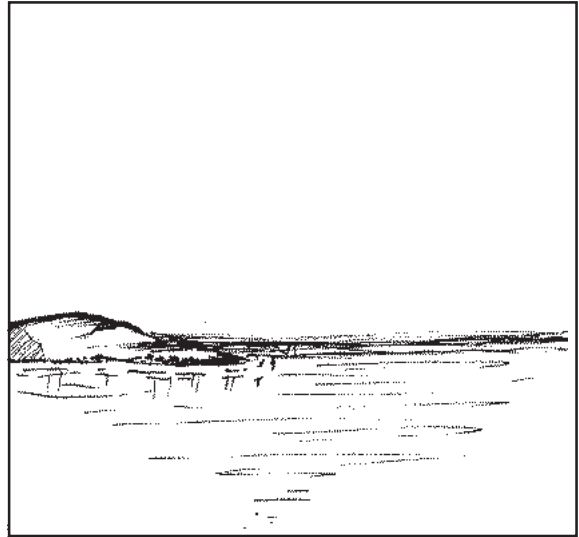
Let's Try This

Do you still remember the water cycle we have discussed earlier? To see if you did, do this simple, relaxing activity. In this activity you will need:

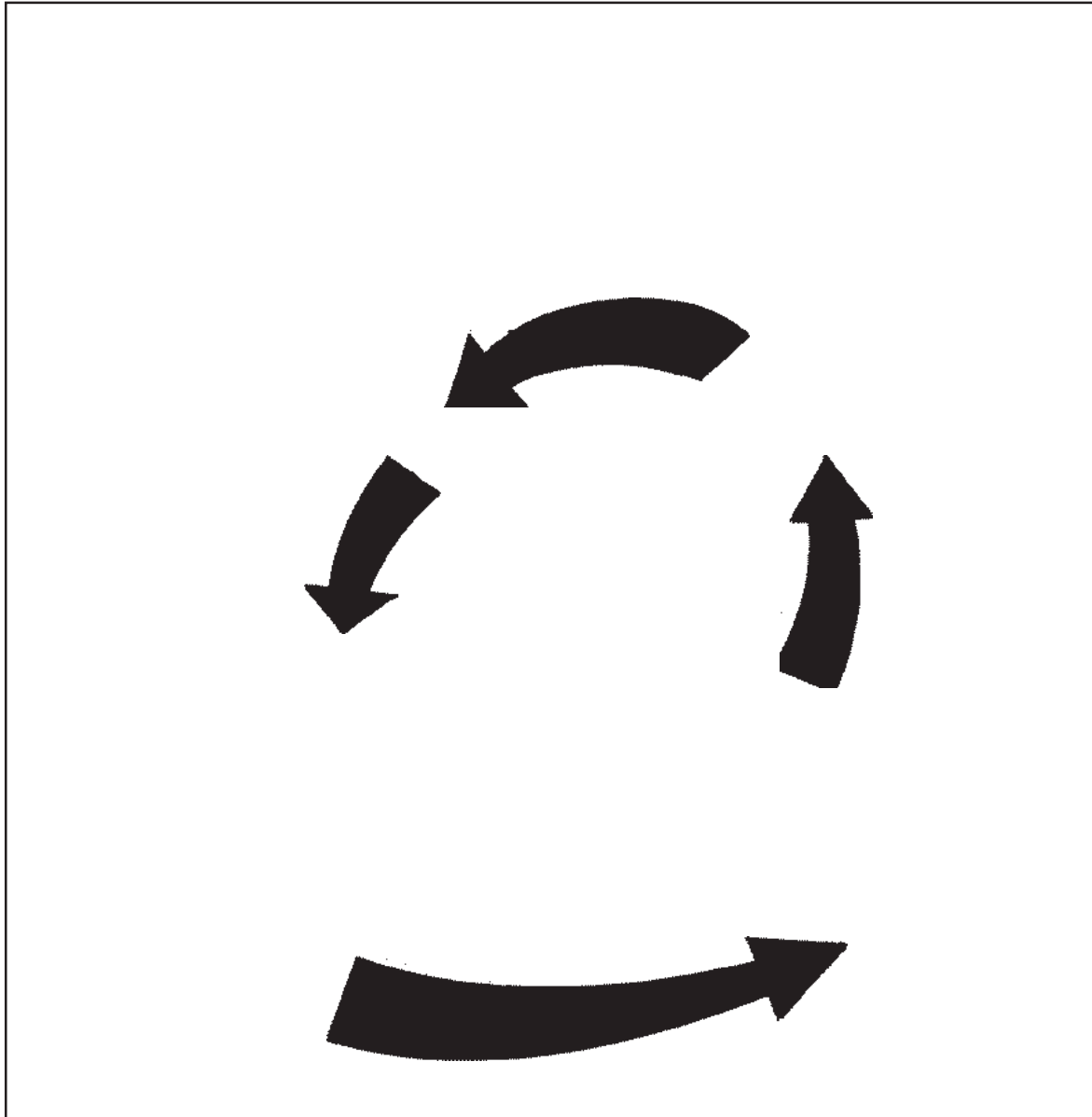
- ◆ Crayons or colored pens
- ◆ Paste or glue
- ◆ Scissors

Follow the instructions carefully.

1. Color each picture below.
2. Cut the pictures carefully.
3. Paste or glue each picture in its proper place in the water cycle on the next page.



The Water Cycle



Have you finished answering? Were you able to put the pictures in their correct places? Did you enjoy doing this activity? Why? Write your answers below.

Compare your answers with those in the *Answer Key* on page 33.



Let's See What You Have Learned

Before we finish studying this lesson, answer this test to determine how much you have learned. Fill in the blanks with the correct answers. At any time, you may refer to the lesson sections to help you out.

1. The _____ is the earth's one and only satellite.
2. The combined gravitational pull of the moon and sun is at its strongest during _____.
3. _____ is the force that pulls everything towards the ground.
4. An _____ occurs when the moon lines up exactly with the earth and the sun.
5. The earth and moon do not generate light; they shine only by the reflected light of the _____.
6. A lunar eclipse only occurs when there is a _____.
7. A lunar eclipse occurs when the moon passes into the _____ cast by the earth.
8. _____ is an important part of the water cycle.
9. In the water cycle, some water from rivers, lakes, streams, wetlands and oceans evaporates because of the _____.
10. The water vapor becomes clouds and when the clouds can no longer hold the moisture, it _____ and falls to the ground as rain.

Have you finished answering the test? Compare your answers with those in the *Answer Key* on page 34.

How well did you do? If you got a perfect score, congratulations! This means you have learned a lot from this lesson.

If your score is 8 or 9, that's very good! You just need to review the items you missed.

However, if your score is 7 or lower, you need to review the entire lesson in order to understand it better.



Let's Remember

There is always a scientific and logical explanation for natural phenomena such as rain or an eclipse. There is a **cause** that leads to a certain **effect**. The cause, effect and the resulting event that results are all observable and verifiable through scientific means.

| CAUSE | EFFECT |
|--|---|
| ♦ The combined gravitational pull of the sun and moon is strongest during a full moon. The force of gravity affects the bodies of water here on earth. It also affects the water within living things. | ♦ It is ideal to plant during a full moon because the crops easily absorb water. |
| ♦ The moon is the one and only satellite revolving around the earth. Sometimes, the moon lines up exactly with the earth and sun. | ♦ An eclipse occurs. |
| ♦ Because of the sun's heat, some water from rivers, lakes, streams, wetlands and oceans evaporates. This becomes vapors that condense into clouds. | ♦ When the clouds can no longer hold the moisture, it precipitates and falls to the ground as rain. |



Let's Sum Up

Because of the absence of modern knowledge and technology, our forefathers explained natural phenomena by means of myths and superstitions. Up to now, some people still believe that natural phenomena are caused by supernatural beings like fairies, elves, gods, spirits and many others.

However, these beliefs are false and misleading, and they prevent us from seeing the truth behind natural phenomena. There are scientific explanations for these natural events and we need to know them in order for us to understand nature better. Each and every natural phenomenon has a cause and knowing this is very important in discovering the truth behind natural phenomena.



What Have You Learned?

Before you finish studying this module, answer this test in order to determine how much you have learned. Fill in the blanks with the correct answers.

1. The moon appears like a complete, bright circle during a _____.
2. The moon has _____ major phases.
3. _____ is the selection of the correct phase of the moon in which to plant, weed, cultivate and harvest crops.
4. An eclipse happens when the moon lines up exactly with the _____ and sun.
5. The earth and moon do not generate _____.
6. A _____ occurs when the moon blocks the sun's light from a small portion of the earth.
7. A lunar eclipse occurs when the moon passes through the earth's _____.
8. _____ consists of droplets of water falling from clouds.
9. The process in which moisture from bodies of water evaporates, condenses into clouds and precipitates back to earth is called the _____.
10. Some water from rivers, lakes, streams, wetlands and oceans evaporates because of the _____.

Have you finished answering the test? Compare your answers with those in the *Answer Key* on page 34.

How well did you fare? If you got a perfect score, congratulations! You have learned so much from this module and you are more than ready to move on to the next module.

If your score is 8 or 9, that's very good! You just need to review the items that you missed.

However, if your score is 7 or lower, you need to review the entire module in order to understand our topic better.



Answer Key

A. Let's See What You Already Know (*pages 2–3*)

1. (b) the moon's gravity helps the plants absorb water better
2. (a) lunar agriculture
3. (c) the moon lines up exactly with the earth and the sun
4. (a) precipitation in liquid form
5. (b) water cycle
6. (b) satellite
7. (a) earth and sun
8. (c) deep coppery-orange
9. (b) the sun's heat
10. (a) rain

B. Lesson 1

Let's Think About This (page 5)

Here is a sample answer:

I believe that it is best to plant when there is a full moon because according to my elders, a full moon brings good luck to farmers and helps them to have a bountiful harvest.

Your answer may be different. You can discuss it with your Instructional Manager for additional feedback.

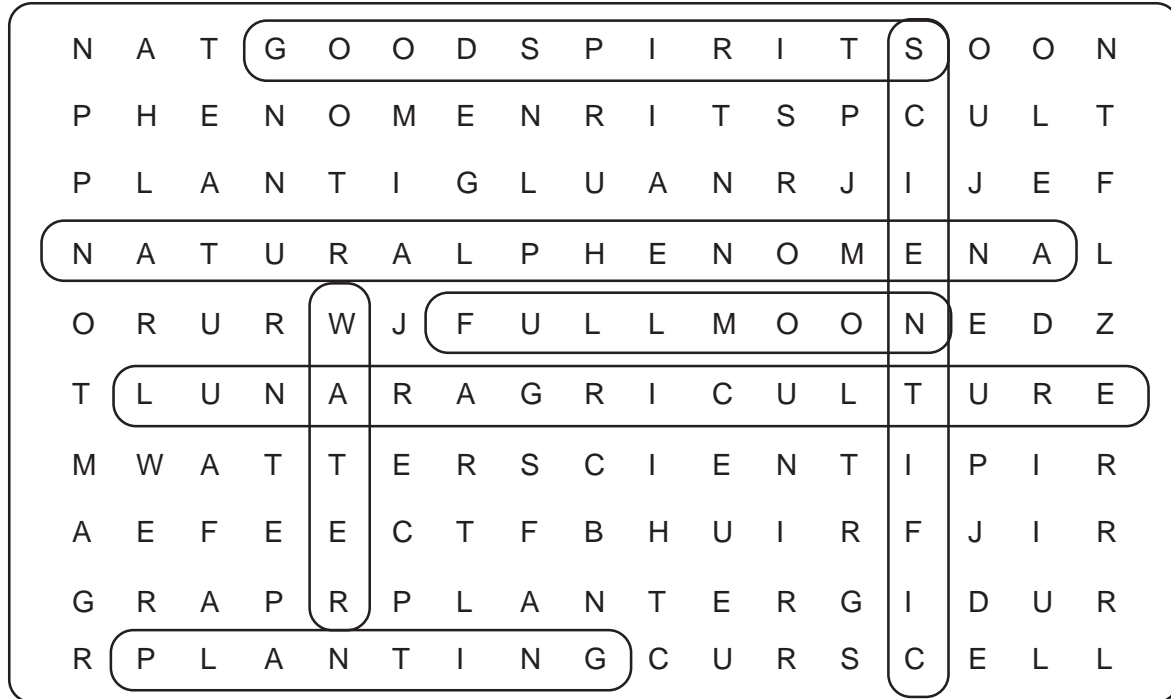
Let's Try This (page 5)

Examples of natural phenomena:

- ◆ tornado
- ◆ volcanic eruption
- ◆ tidal wave
- ◆ growth of plants
- ◆ storm
- ◆ snow
- ◆ island formation
- ◆ growth of baby inside a mother's womb
- ◆ blossoming of flowers
- ◆ rising and setting of sun
- ◆ movement of stars in the sky

You might have thought of other examples of natural phenomena that are not mentioned here. Discuss your answer with your Instructional Manager for additional feedback.

Let's Try This (pages 6–7)



Let's Think About This (page 8)

Here is a sample answer:

Teban and Ambo were talking about a solar eclipse. The sky became dark and daytime looked like nighttime.

Let's Try This (page 10)

A solar eclipse occurs when the moon blocks the sun's light from a small portion of the earth. Meanwhile, a lunar eclipse occurs when the moon passes through the earth's shadow.

Let's See What You Have Learned (pages 12–13)

1. phenomena
2. ancestors/forefathers
3. moon
4. agriculture
5. good spirits
6. eclipse
7. solar
8. lunar
9. Tungkung Langit
10. water

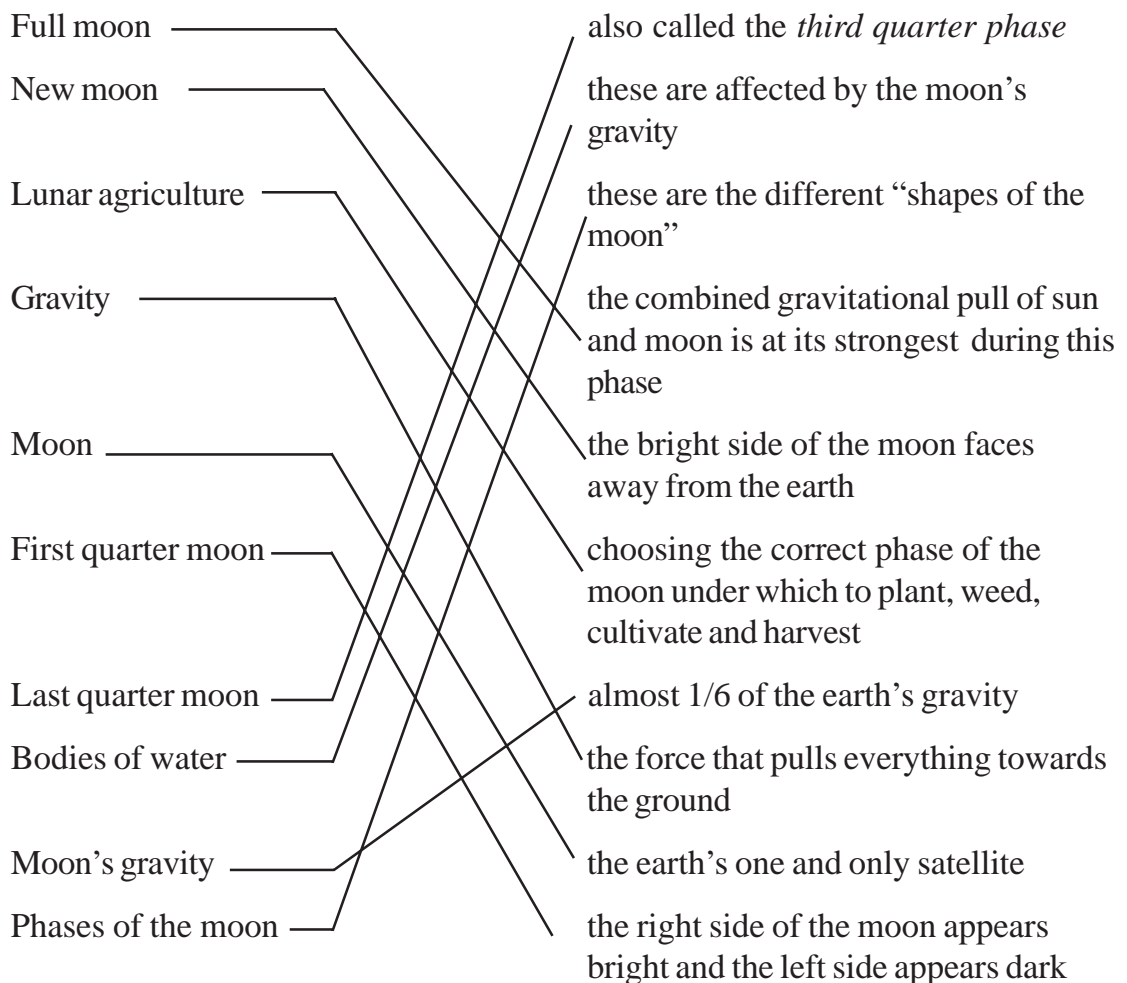
C. Lesson 2

Let's Try This (page 14)

Here is a sample answer:

- ◆ Planting during a full moon is ideal because the moon's gravity (combined with the sun's) is at its strongest at this time, affecting all bodies of water including the water within living things. The water is drawn upward more easily, therefore helping crops absorb moisture better.

Let's Try This (page 17)

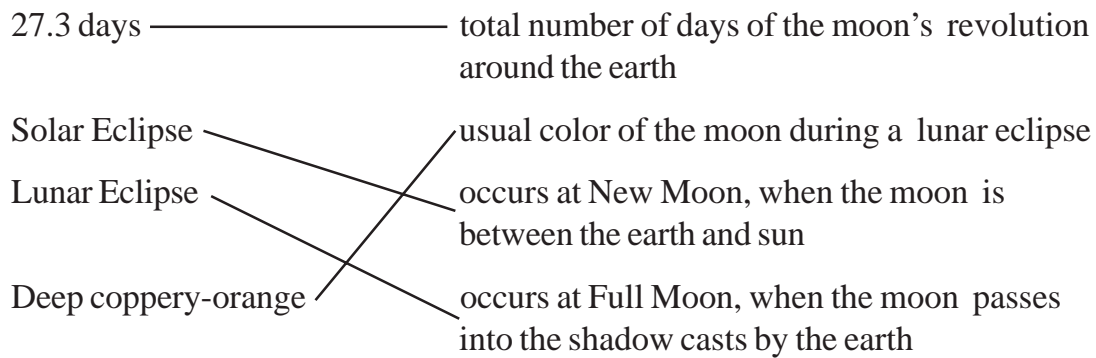


Let's Think About This (page 19)

Here is a sample answer:

- ◆ Yes, I have witnessed a solar eclipse. The sky suddenly turned dark and it was very beautiful. Yet it was also very strange because even though it was daytime, it looked like nighttime.

Let's Try This (page 21)

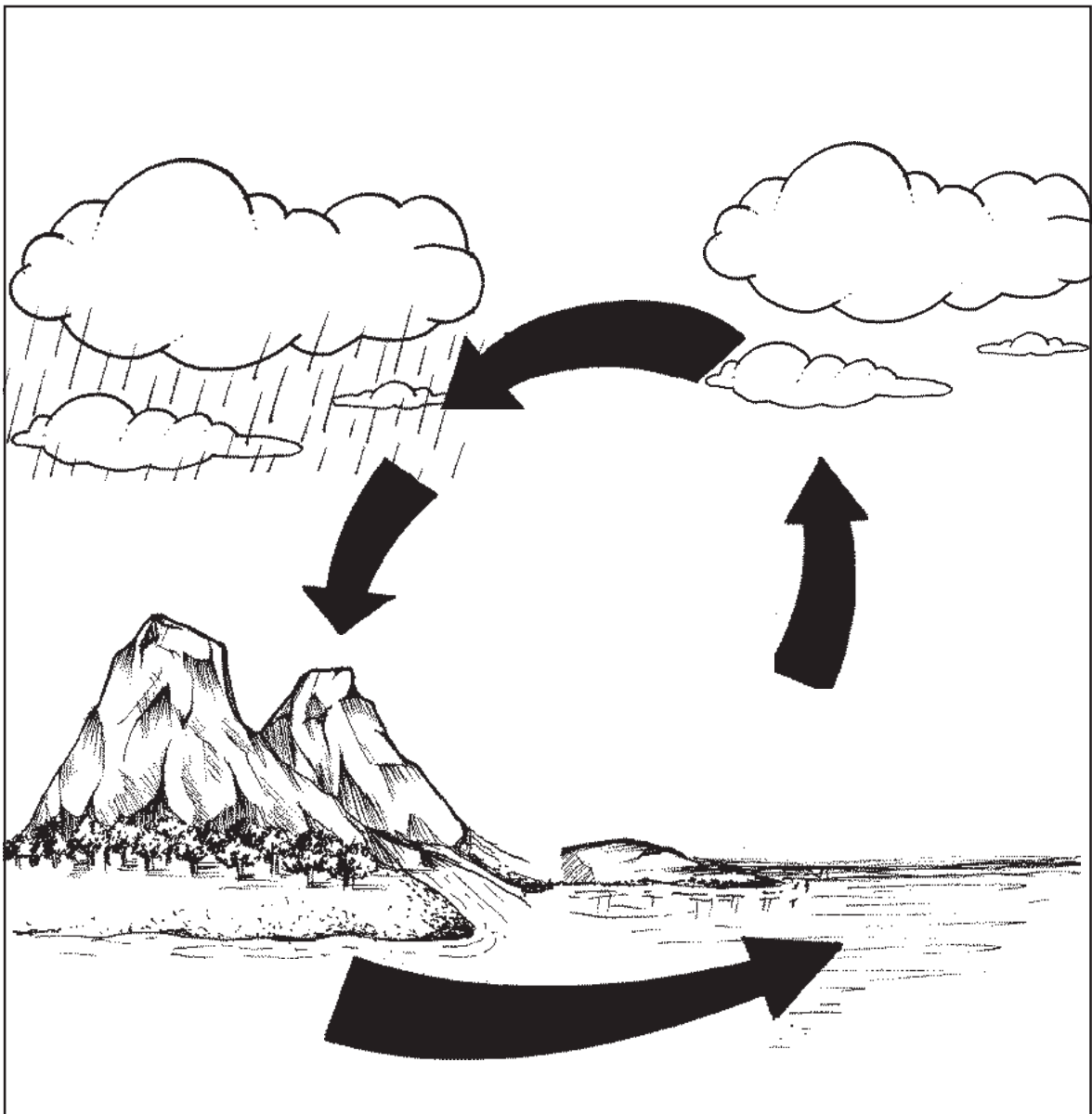


Let's Think About This (page 21)

Here is a sample answer:

Rain comes from the clouds. When some water from different bodies of water evaporates because of the sun's heat, it forms into clouds. When the clouds can no longer hold the moisture, it falls to the ground as rain. When I was a child, my parents told me the rain pours when a person with a croaking voice sings.

Your answer might be different. You can discuss it with your Instructional Manager or Facilitator.



Here is a sample answer:

Yes, I was able to put the pictures in their correct places. I enjoyed doing the activity because it was fun coloring, cutting and finally pasting each picture on their proper places in the water cycle diagram.

Let's See What You Have Learned (page 25)

1. moon
2. full moon or new moon
3. Gravity
4. eclipse
5. sun
6. full moon
7. shadow
8. Rain
9. sun's heat
10. precipitates

D. What Have You Learned? *(page 28)*

1. full moon
2. four
3. Lunar agriculture
4. earth
5. light
6. solar eclipse
7. shadow
8. Rain
9. water cycle
10. sun's heat



Glossary

Full moon Phase of the moon when it appears like a perfect circle and it is very bright

Gravity Force which attracts an object to another object (e.g., the gravity between earth and moon). On earth, gravity is the reason why objects fall toward the ground.

Lunar agriculture System of planting based on the phases of the moon

Natural phenomena Observable events or occurrences in nature

Reproach To criticize someone

Resent To dislike or be angry about something

Scientific Based on a systematic study of the physical world

Trivial Unimportant; of little value



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