Margene

Student Packet

Week of:

03/23- 03/27/20

Our Solar System

Mini-Lesson

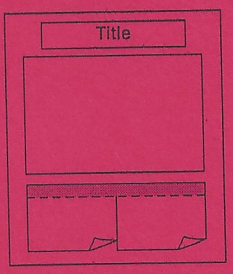
Read the following information. Then cut out and attach this box to the right-hand page of your science notebook. Use what you have learned to create the left-hand page.

Our **solar system** consists of a sun, planets, moons around the planets, asteroids, meteoroids, and comets. The solar system also includes solar wind and dust; however, most of the solar system is simply empty space. All the parts of the solar system move around other objects. The moons move around their planets. The planets move around the sun. The sun also moves around the center of the Milky Way Galaxy.

The sun is at the center of our solar system. The other members surround the sun and revolve around it, each in its own orbit. Astronomers believe that the sun is actually NOT directly in the center, but is slightly to one side. Most of the members of the system orbit the sun in **elliptical**, or oval, paths—not round ones. Their paths resemble the shape of an egg or a football.

The position of the planets in the solar system causes them to have unique physical features. The first four planets in the solar system are Mercury, Venus, Earth, and Mars. These planets are referred to as the inner belt, or **terrestrial planets**. The region between the inner planets and the outer planets is referred to as the **asteroid belt**. This is an area occupied by numerous asteroids traveling around the sun. The five planets in the outer belt of our solar system are Jupiter, Saturn, Uranus, Neptune, and Pluto. These planets are referred to as the **Jovian planets**. Jupiter, Saturn, Uranus, and Neptune are different from all the other planets in that they have no solid surface. These large gas giants are surrounded by gaseous clouds that get thicker closer to the center of the planet. Pluto is a cold, dense planet about which little is known. Pluto was once considered the most distant Jovian planet in our solar system. In 2006, because of its small size and eccentric orbit, the International Astronomical Union (IAU) formally reclassified it as a **dwarf planet**.

How to Create Your Left-Hand Notebook Page



Complete the following steps to create the left-hand page of your science notebook. Use lots of color.

Step 1: Cut out the title and glue it to the top of the page.

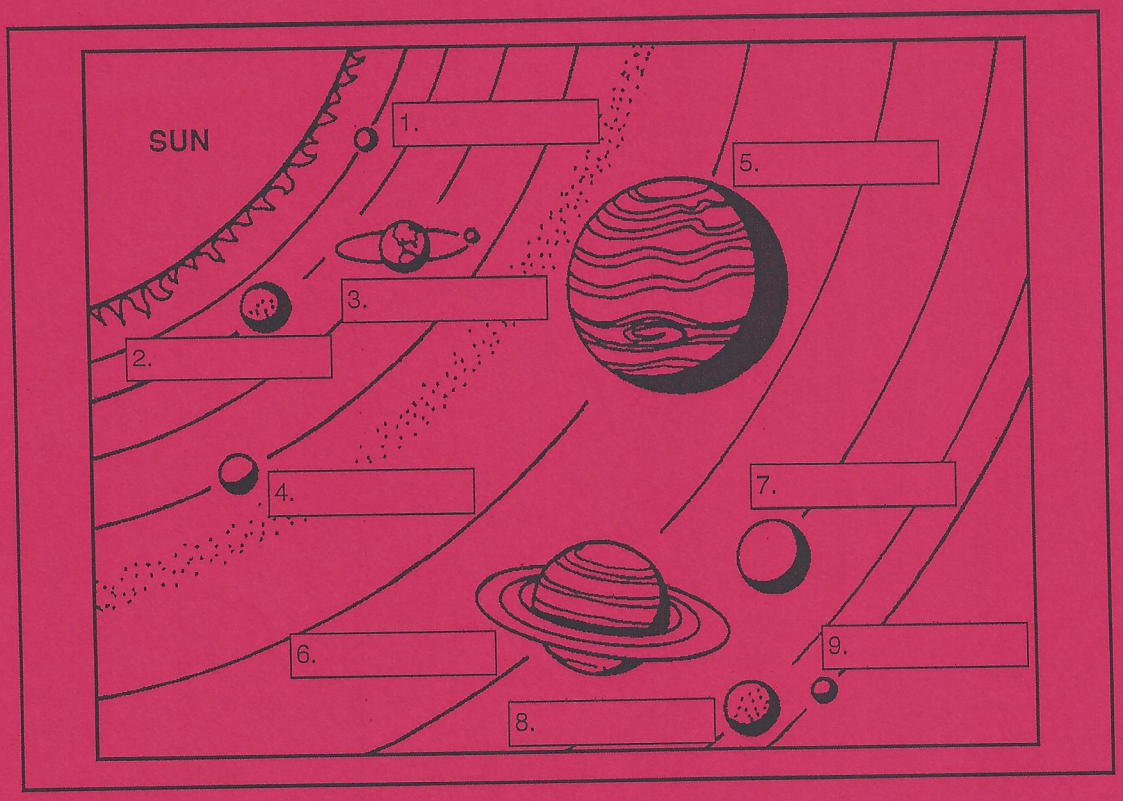
Step 2: Cut out the diagram box. Apply glue to the back and attach it below the title. Label the diagram with the names of the planets.

Step 3: Cut out the flap chart. Cut on the solid line to create two flaps. Apply glue to the back of the gray tab and attach the chart at the bottom of the page. Write the names of the planets in the correct box on the chart. Write the correct definition under each flap.

Demonstrate What You Have Learned

Research each of the planets in our solar system. Find the following information for each planet: average distance from the sun, diameter, length of rotation, length of orbit, number of moons, and number of rings. Create a chart in your science notebook to record the information.

Our Solar System



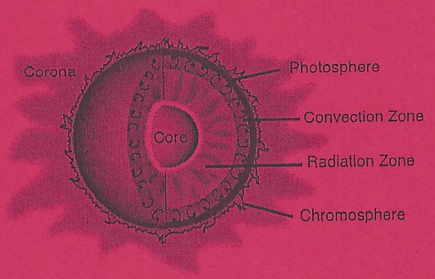
Terrestrial Planets	Jovian Planets

The Sun

Mini-Lesson

Read the following information. Then cut out and attach this box to the right-hand page of your science notebook. Use what you have learned to create the left-hand page.

The **sun** is the star found at the center of our solar system. It is a giant ball of burning hot gases, 15 million degrees Celsius at its core! Its interior and atmosphere are made up of several different layers.

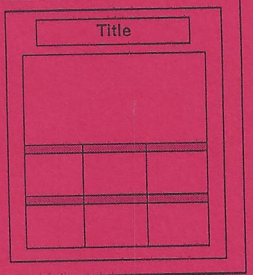


- The center of the sun is the **core**. It is a blazing furnace where hydrogen is constantly being converted into helium.
- The **radiation zone** is the thickest of the sun's layers. Here energy is transferred from atom to atom by the process of radiation until the gas enters the next layer.
- The **convection zone** is the outermost layer of the sun's interior. The hot gases entering this zone from the radiation zone rise rapidly toward the surface. As they rise, the gases begin to cool. They then fall back toward the bottom of this zone. The cycle of heating, rising, cooling, and falling is repeated over and over before the gas can finally reach the surface of the sun.
- The **photosphere** is the bright, shiny disk of the sun that we can see from Earth. Most of the light that actually reaches Earth comes from this layer.
- The **chromosphere** is the layer that appears bright red in color, but it can only be seen from Earth during a total solar eclipse. Normally, its light is blocked by the much brighter photosphere.
- The outermost layer of the sun's atmosphere is called the **corona**. This region is only visible during a total solar eclipse or with an instrument called a **coronagraph**.

How to Create Your Left-Hand Notebook Page

Complete the following steps to create the left-hand page of your science notebook. Use lots of color.

Step 1: Cut out the title and glue it to the top of the notebook page.
Step 2: Cut out the diagram chart. Apply glue to the back and attach it below the title. Label each part of the diagram.
Step 3: Write the correct definition in each box on the chart.

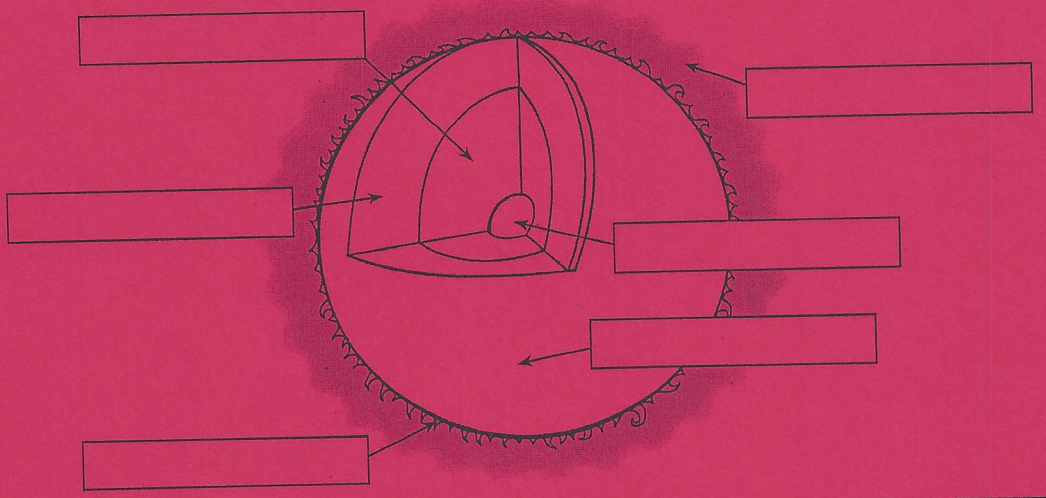


Demonstrate What You Have Learned

Research the sun. Use the information to create a list in your science notebook of safety tips for observing the sun.

The Sun

Layers of the Sun



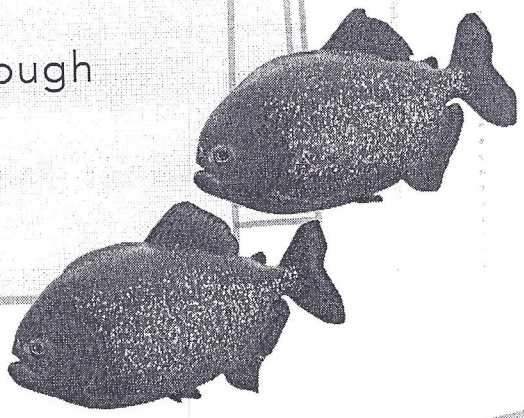
Core	Radiation Zone	Convection Zone

Photosphere	Chromosphere	Corona

NAME: _____

Directions: Place check marks next to the sentences that you would include in an informative/explanatory paragraph about temperate forests.

- ☐ 1. Many people live near temperate forests.
- ☐ 2. It can be lots of fun to run through forests.
- ☐ 3. Temperate forests have four seasons.
- ☐ 4. I enjoy the scenery in the forests.
- ☐ 5. Good soil for growing plants can be found in temperate forests.
- ☐ 6. Temperate forests usually get lots of rain.
- ☐ 7. Some people live in cabins in temperate forests.
- ☐ 8. It is scary to walk through temperate forests.



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NAME: _____

Directions: Describe a temperate forest. Include details about how the forest looks and smells. Use the notes from page 49 to help you.

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Remember!

A strong informative/ explanatory paragraph includes:

- a topic sentence
- details to support the main idea
- a concluding sentence

Printing Practice abc

Directions: Use your best printing to write a title of a story that takes place in a forest.

_____

_____

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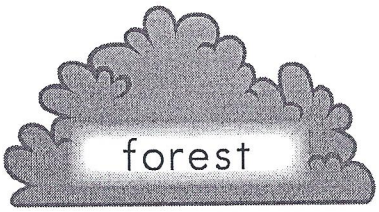
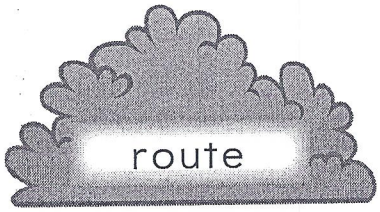
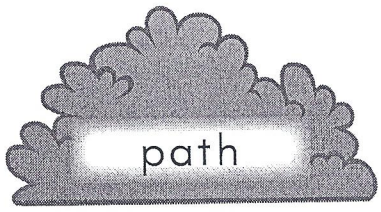
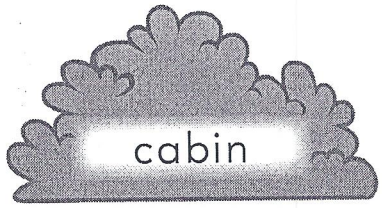
NAME: _____

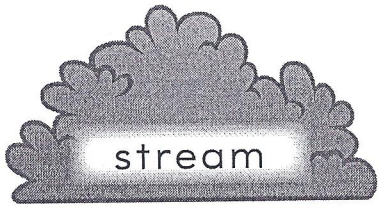
Directions: Match each word on the left with its synonym on the right. Then, create your own synonym pair.

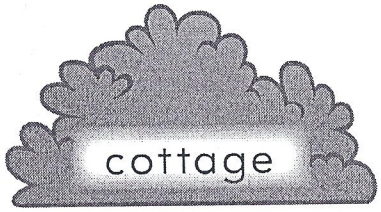


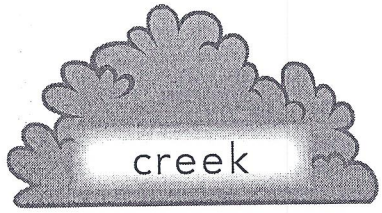


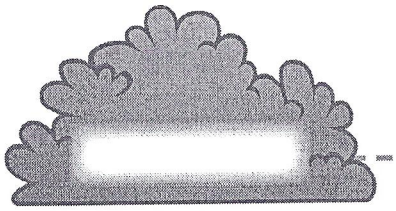


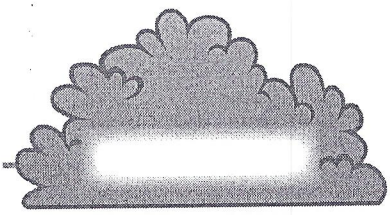












Time to Improve!

Directions: Revisit the draft you wrote on page 50. Look for repeated words, and replace them with synonyms.

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NAME: _____

Directions: Read the paragraph. Circle the spelling errors. Then, write them on the lines below.

It can be rather spooky to visit a temperate forrest. These forests are rather dark, which makes it hard to see. Many anemals live in temperate forests, and you hear their unusual noises. The floor of a temperate forest can be damp and have a musty smel. Sometimes, shrubs or weads brush against your arms and feel strange.

_____

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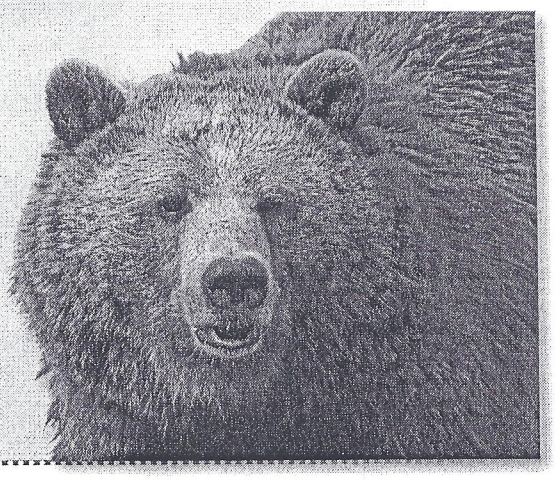

Remember!

Circle words that are spelled incorrectly and write *SP* above them. This will remind you to check with a dictionary, a word wall, or a friend to find the correct spelling.

Time to Improve!

Directions: Revisit the draft you wrote on page 50 about temperate forests. Check for any misspelled words.

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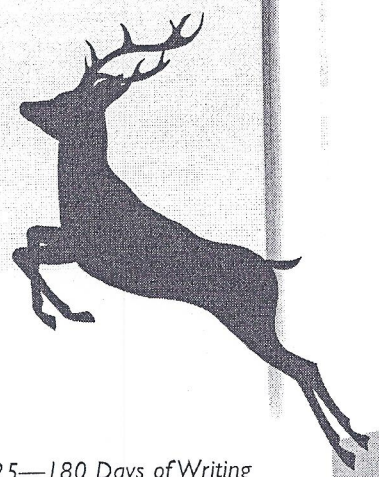
NAME: _____

Directions: Describe a temperate forest. Include details about how the forest looks and smells.



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Name: Nonfiction: Review – Q4:2 Date:

Highlight the details that help you answer this week's questions.

Thankful for Thanksgiving

Turkey. Stuffing. Cranberries. It's a yummy Thanksgiving meal! Families and friends eat these foods every year in November in the United States. But do you know that we would not have Thanksgiving as we celebrate it today without Sarah Hale?

Long ago, Thanksgiving was not celebrated throughout the United States. It was mostly celebrated in New England, and many of the Southern states didn't celebrate Thanksgiving at all. Sarah wanted everyone to remember when the people in the New World and the Native Americans shared a meal. She wanted this special day to become a **national holiday**. A national holiday is a holiday that the entire nation celebrates at the same time. At this time, the only national holidays were Washington's Birthday and Independence Day.

Sarah could not make Thanksgiving a national holiday alone, though. She decided to begin by writing a letter! After all, she was a writer by trade. She wrote the famous "Mary Had a Little Lamb!" She also wrote letters to the editor of a newspaper about Thanksgiving. She used what she knew to write a letter to the President of the United States, too. That was Abraham Lincoln. She knew that he could make Thanksgiving a national holiday.

Sarah showed President Lincoln the problem in her letter. Thanksgiving was celebrated by only some of the states, and no one had it at the same time. She asked President Lincoln to make the holiday the last Thursday in November. That way, everyone could remember this day and celebrate as a nation.

Sarah Hale was a poet, editor and author.

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President Lincoln read Sarah Hale's letter. He wrote a document of his own in October 1863. Lincoln did what Sarah wanted. He said that the last Thursday of every November would be called Thanksgiving. This meant that every state would celebrate Thanksgiving on the same day.

There is a lot to be thankful for. One person to be thankful for is Sarah Hale, the "Godmother of Thanksgiving." Without her, the United States would not have this national holiday!

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Nonfiction: Review – Q4:2

Monday	Tuesday
Before you read, preview the article. What do you think this text will be about?	According to the 2nd paragraph, what did Sarah Hale want?
What is the main idea of the text?	Based on the text, what is a **national holiday**?
In what country do people celebrate Thanksgiving?	During this time, what were the only national holidays celebrated?

Wednesday	Thursday
What did Sarah do to solve her problem?	Which text feature tells you that Sarah Hale was a poet?
What text feature shows what Sarah Hale looked like?	What children's poem is Sarah Hale famous for writing?
Who helped Sarah make Thanksgiving a national holiday?	What might have happened if Sarah Hale had never written a letter to President Lincoln?

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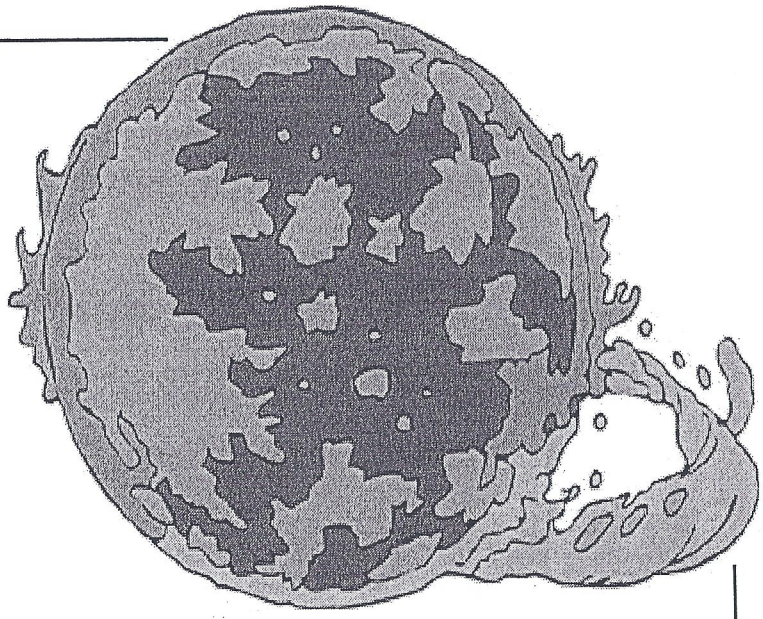
Name: _____

The Sun

by Cynthia Sherwood



You may have heard people use the term "solar energy." They're probably talking about the technology that powers a house or heats a swimming pool. But there's only one place that you can find true "solar energy"—the sun!

Without the sun, there wouldn't be life on earth. The sun provides us with both light and heat. It's at the very center of our solar system, with all eight planets revolving around it. The planets' moons, thousands of asteroids, and trillions of comets also revolve around the sun.

From earth, we see the sun as a bright yellow dot in the sky that's sometimes hidden by clouds. But the sun is actually a glowing ball of fiery gas. The part of the sun that we see has a temperature of 10-thousand degrees Fahrenheit (5,600 degrees Celsius). Inside the sun, at its core, the temperature is 27-million degrees (15-million Celsius).

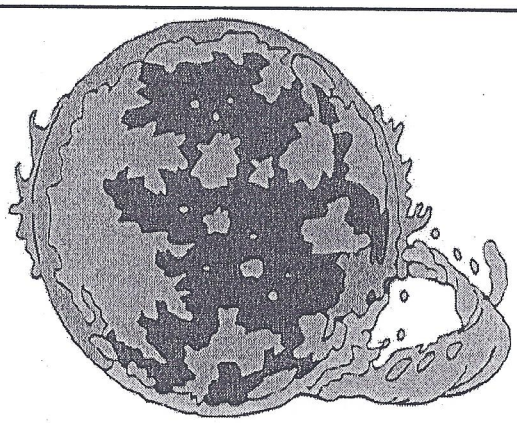
The core is where the sun's incredible energy is created. The temperature is so extreme that nuclear reactions take place and energy travels to the surface of the sun. That energy is then released as light and heat. It takes a million years for energy produced in the sun's core to reach its surface.

Besides being hotter than we can even imagine, the sun is amazingly big. You could fit more than a million Earths inside the sun! But believe it or not, the sun isn't anywhere close to being the biggest object in the universe. The sun is actually a star, just like the others you see at night. It's about average in size when compared to other stars. But to us here on earth, there's nothing average about the sun!

Name: _____

The Sun

by Cynthia Sherwood



1. Where is the sun located?

   a. the center of the universe
   b. the center of the galaxy
   c. the center of the solar system
   d. the center of the Earth

2. How hot is the sun's surface? How hot is the sun's core?

   _____

3. The sun is....

   a. the largest known star
   b. an average-sized star
   c. a small star
   d. the hottest known star

4. Match the words on the left with the definitions on the right.

_____ 1. solar energy	a. center, inside of a ball-shaped object
_____ 2. solar system	b. heat, light, or electrical power made from the sun
_____ 3. core	c. the sun, and all of the things that orbit around it