



## A Lesson on Learning about the Solar System by Hannah Poore

**Grade Level:** Grade 4

**Subject Area:** English Language Arts

**Lesson Length:** 2 hours

**Lesson Keywords:** solar system, vocabulary, writing, comprehending text

**Lesson Description:** The goal of this lesson is to allow student's to take what they have learned from the passage and apply it to previous knowledge to help answer questions and learn new vocabulary. Through discussion questions and writing opinion pieces about information they have gained from the text, students will develop a deeper understanding of the material they have read as well as enhancing their writing skills.

### Common Core Standards Covered with This Lesson

CCSS.ELA-Literacy.W.4.1: Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

CCSS.ELA-Literacy.W.4.1b: Provide reasons that are supported by facts and details.

CCSS.ELA-Literacy.W.4.2: Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

CCSS.ELA-Literacy.W.4.4: Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)

CCSS.ELA-Literacy.L.4.4a: Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.

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## Lesson Content: Book/Story/Reading Passage

**Instructions:** Please read the following reading passage as many times as needed (aloud and silent) before starting to go through other lesson pages. Understanding the content of this passage is very important since the lesson activities will be all about this content. Feel free to print the passage if needed.

### Learning about the Solar System

by

**Content:** When scientists looked at the stars long ago, they saw patterns. They did not understand everything about what they saw. So they kept looking to learn more. That is what scientists do. They ask questions and look for information to answer their questions. They are like explorers. They do not travel far the way explorers do. But they do make a kind of journey. They want to learn more. They go from what they know to what they discover.

Scientists have learned about our planet. It is very big. It is very diverse. There are places that are hot. There are places that are freezing. There are mountains and plains. There are hills and valleys. There are deep oceans. There are great rivers and waterfalls. There are rainforests. There are deserts. Those are all parts of our planet. There is much more to learn about what is here on Earth. A scientist dedicates much time to learning. The scientist works hard. The scientist helps us all find out more about our world.

Our planet is in a galaxy called the Milky Way. The sun is a big star in our part of this giant galaxy. Our galaxy holds millions of other stars. The sun is very important to our planet. The sun gives us light during the day. It gives us heat, too. Two other planets are closer to the sun than Earth: Mercury and Venus.

Scientists figured out how the Earth changes. Earth orbits the sun once each year. It travels once around the sun every 365 days. The other eight planets in our solar system also orbit around the sun. All travel in a pattern called an ellipse, which is a kind of oval. So at times Earth is farther from the sun. Scientists figured out that made it cooler on Earth then. But they also figured out that it is the tilt of the Earth's axis, however, that has the greatest effect on temperatures.

Scientists are still learning about our galaxy. There is much to discover. Today astronauts travel into space. They are explorers. It is dangerous to travel in space, but they are dauntless. They bravely travel thousands of miles to learn.

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## Task 1: Vocabulary

**Instructions:** Please complete the following vocabulary activity by choosing the correct meaning of each word selected from the passage and use of each word correctly in a sentence.

**Q: 1 WordPhrase:** Diverse **WordPhraseTier:** 2

**Question:** The author in our story says "Scientists have learned about our planet. It is very big. It is very diverse..." What does the word "diverse" mean in this sentence?

- A:** Large
- B:** Made up of people or things that are different from each other
- C:** Rocky and mountainous
- D:** Covered mostly by water

**Question:** Which one of the sentences below uses the word "diverse" correctly?

- A:** Earth's oceans have a very diverse animal population.
- B:** He seemed very diverse when speaking to me.
- C:** The sun is a very diverse star.
- D:** Aaron's dog loves to diverse when it is hot outside.

**Q: 2 WordPhrase:** Orbit **WordPhraseTier:** 3

**Question:** The author in our story says "Scientists figured out how the Earth changes. Earth orbits the sun once each year..." What does the word "orbit" mean in this sentence?

- A:** To pass by
- B:** To crash into
- C:** To travel around in a circle
- D:** To see

**Question:** Which one of the sentences below uses the word "orbit" correctly?

- A:** Anna loves to chew Orbit Gum.
- B:** I saw two cars orbit each other on the road yesterday.
- C:** The bus orbits my favorite park everyday.
- D:** One year is the amount of time it takes for the Earth to orbit the Sun.

**Q: 3 WordPhrase:** Dedicate **WordPhraseTier:** 2

**Question:** The author in our story says "There is much more to learn about what is here on Earth. A scientist dedicates much time to learning..." What does the word "dedicate" mean in this sentence?

- A:** Does not care for
- B:** Strongly committed to
- C:** A specific use
- D:** To offer to someone

**Question:** Which one of the sentences below uses the word "dedicate" correctly?

- A:** Archie is a dedicate speller.
- B:** I dedicated Annie a ride home.
- C:** Susie dedicates much of her time to practicing piano.
- D:** Ryan dedicates doing homework.

**Q: 4 WordPhrase:** Galaxy **WordPhraseTier:** 3

**Question:** The author in our story says "Our planet is in a galaxy called the Milky Way..." What does the word "galaxy" mean in this sentence?

- A:** A collection of something
- B:** A candy bar
- C:** A large system of stars held together by gravity
- D:** A big, open space

**Question:** Which one of the sentences below uses the word "galaxy" correctly?

- A:** I have a galaxy of shiny rocks.
- B:** There are millions of different stars in our galaxy.
- C:** A Milky Way galaxy is a great snack!
- D:** Emma took a roadtrip through the USA's largest galaxy.

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## Task 2: Forum Discussion

**Instructions:** This discussion forum will have questions for students to respond. Read the posted questions, and respond to each. Students are responsible for posting one initial and and two peer responses for each topic.

### 1 - Why is the sun important?

The author states that the sun is very important. What makes the sun so important to us? What do you think would happen if the sun disappeared?

### 2 - Eath's Temperature

According to the text, why does the Earth get cooler? Explain what you think causes these changes and why.

### 3 - Learning about our planet

The author states that scientists dedicate a lot of time to learning about our planet. Do you think it is important to learn more about our planet and solar system? Explain why or why not.

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### Task 3: Writing Activity

#### **Instructions:**

The author states that there are many places on Earth that are different from each other. Some places are hot, while some places are cold. Some places are very wet, while others are very dry. In three to four paragraphs, compare two places on Earth that are different from each other. Explain what makes them different, and why you think they are that way. Use information you learned from the text to help support your answer. Your writing should include an introductory and conclusion paragraph.

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