

Name: _____

Date: _____

● The Role of the Sun Reading Passage

THE ROLE OF THE SUN

The sun is a star at the center of our solar system that emits light. Light carries light or radiant energy to Earth. Radiant energy from the sun is the major source of energy on Earth. Nearly all energy on Earth can be traced back to the sun. The sun's energy is transformed and transferred so to be the original source of energy on Earth. The sun is important to ecosystems on Earth. In fact, life on Earth couldn't exist without the sun.

The sun emits visible, white light that we see. We often refer to visible light simply as "light." However, there are actually different types of light the sun emits, including UV light and infrared. Visible light is important to visualizing the world. Without visible light, we would not be able to observe the environment.

The sun's radiant energy is used to power food chains. Plants use the sun's radiant energy to make food. Specifically, plants use the sun's energy to power the process of photosynthesis to make food. Animals consume plants. Other animals consume the animals that eat plants and so on. Without energy from the sun, plants could not make food. If plants cannot make food, they die and food chains would collapse.

The sun emits infrared light. You cannot see infrared but you can feel it. Infrared is radiant energy important to warming Earth. Infrared heats Earth's land, water and air. This creates weather, wind, clouds and precipitation. It is responsible for powering the water cycle and other cycles on Earth. Without infrared, Earth would be a cold, frozen planet.

Questions:

1. What is the sun?
2. How is visible light emitted from the sun important to life on Earth?
3. How is radiant energy emitted from the sun important to food chains?
4. How is infrared light emitted from the sun important to climate on Earth?
5. What might happen to life on Earth if the sun was smaller? Justify your answer.

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● The Role of the Sun Answer Sheet

Questions

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