

# Light Energy Scavenger Hunt Activity

## Materials:

- Light energy questions worksheet (pages 2-3)
- 18 light energy fact cards (pages 4-8)
- scissors and scotch tape

## Preparation

Print the fact cards and cut them apart.

Make copies of the light energy questions worksheet (2-sided). Each student will need his or her own copy.

Hide the 18 light energy fact cards around your classroom where students will be able to find them. You can put them on the back of your classroom door, on chairs, on the computer keyboard, on the sides of student desks, or wherever you like.

## Activity

Students receive copies of the question worksheet. They have to search the classroom to find the fact cards to answer the questions.

After they have completed the question sheet, you can go over the answers together with the class.

## Management tips

You may want to make this a silent activity so students don't share answers with each other. You can have the kids work by themselves or with partners.

Don't be afraid to hide the facts in tough places. Kids think it's more fun when they have to search around a little.

## Examples of good hiding spots might include:

- sticking out of a book, like a bookmark
- the back of the classroom door
- lying flat on the bookshelf
- on the back of the teacher's chair
- on the side of your computer monitor

*Have a plan for students who finish early. You may want to have an assignment for them to complete when they're done, or you may have them help other students find fact cards.*



# Light Energy Scavenger Hunt

- Fact Card 1:** How long does it take light to travel from the sun to Earth?  
\_\_\_\_\_
- Fact Card 2:** What chemical is in a firefly's body to help it produce light?  
\_\_\_\_\_
- Fact Card 3:** Where does the moon's light come from?  
\_\_\_\_\_
- Fact Card 4:** What type of light can most insects see that people cannot?  
\_\_\_\_\_
- Fact Card 5:** How fast does light travel through space?  
\_\_\_\_\_
- Fact Card 6:** According to Albert Einstein, what moves faster than light?  
\_\_\_\_\_
- Fact Card 7:** What is the process that plants use to convert light energy into food?  
\_\_\_\_\_
- Fact Card 8:** A single particle of light is called a...  
\_\_\_\_\_
- Fact Card 9:** A piece of glass cut with many angles to create a rainbow is called a...  
\_\_\_\_\_

# Light Energy Scavenger Hunt

**Fact Card 10:** Which color has the longest wavelengths of light?

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**Fact Card 11:** What does the word *refract* mean?

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**Fact Card 12:** Which of these is opaque: *water, steel, or wood*?

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**Fact Card 13:** What are solar panels?

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**Fact Card 14:** Name three types of light waves that we cannot see.

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**Fact Card 15:** Name five common items that use lenses.

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**Fact Card 16:** Our eyes need \_\_\_\_\_ to be able to work.

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**Fact Card 17:** A shadow is formed when...

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**Fact Card 18:** In the 1600s, what famous scientist studied rainbows made with a prism?

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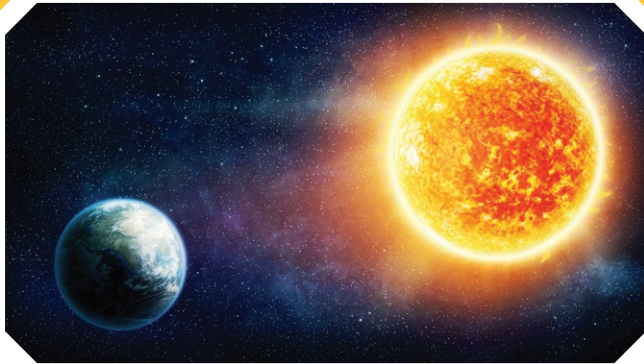


### Scavenger Hunt

## Light Energy

Fact Card

**1**



The sun is 93 million miles (150 million kilometers) away. It takes 8 minutes for light to travel from the sun to Earth.

### Scavenger Hunt

## Light Energy

Fact Card

**2**



A firefly has a special organ on its abdomen that produces light. Its glow is a chemical reaction. To make light, the firefly's body mixes oxygen in the air with a chemical from its body called luciferin.

### Scavenger Hunt

## Light Energy

Fact Card

**3**



The moon does not produce its own light. When you look at the moon, you're seeing the sun's light reflecting off of the moon.

### Scavenger Hunt

## Light Energy

Fact Card

**4**



Some animals can see types of light that we can't. For example, most insects can see ultraviolet (UV) light.



### Scavenger Hunt

## Light Energy

Fact Card

5



Light travels through outer space at a speed of about 186,000 miles (300,000 kilometers) per second.

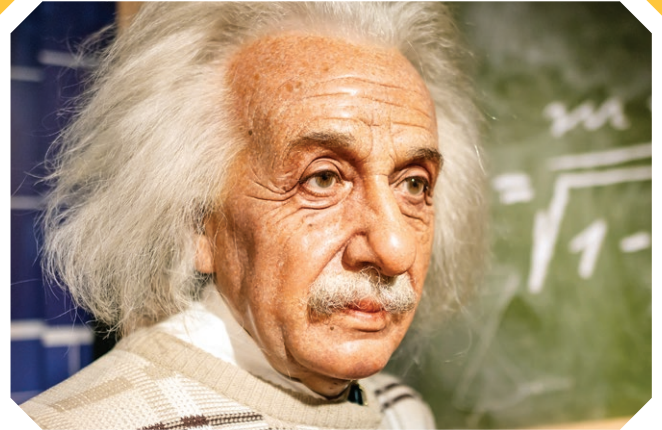
Light travels slightly slower through different mediums, such as air, water, and glass.

### Scavenger Hunt

## Light Energy

Fact Card

6



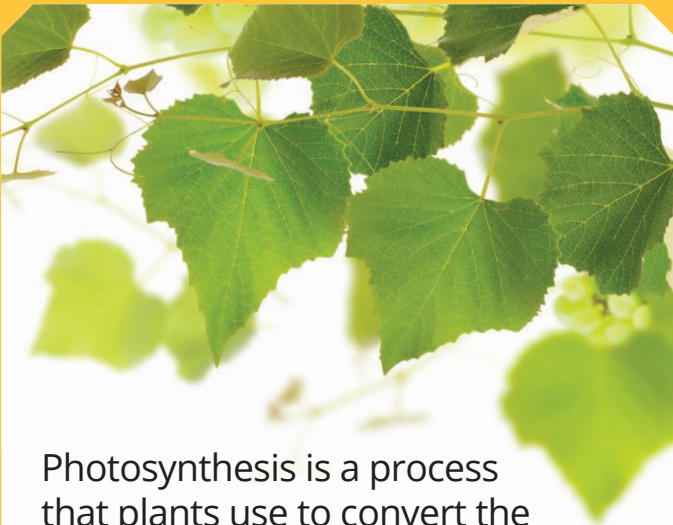
According to Albert Einstein, nothing in the universe moves faster than light.

### Scavenger Hunt

## Light Energy

Fact Card

7



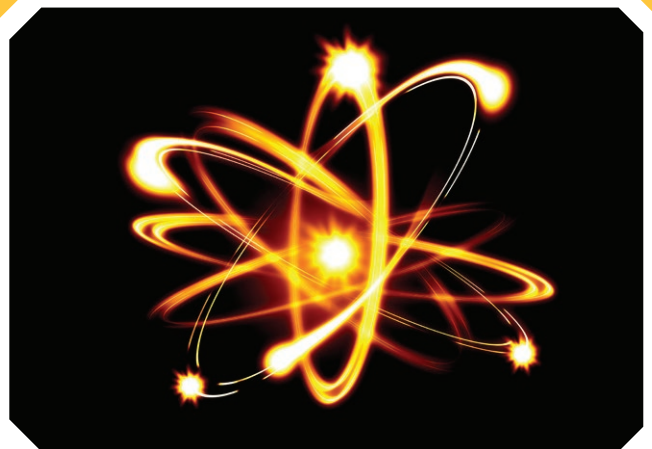
Photosynthesis is a process that plants use to convert the sun's light into food.

### Scavenger Hunt

## Light Energy

Fact Card

8



A single particle of light is called a photon.

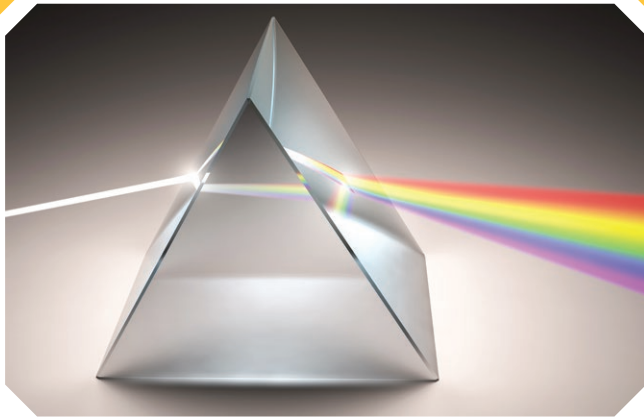


### Scavenger Hunt

## Light Energy

Fact Card

**9**



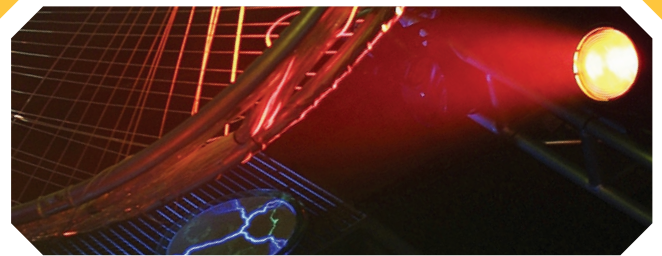
A prism is a piece of glass cut with many angles to reflect light and create a rainbow.

### Scavenger Hunt

## Light Energy

Fact Card

**10**



Different light waves have different wavelengths. This is why we have colors.

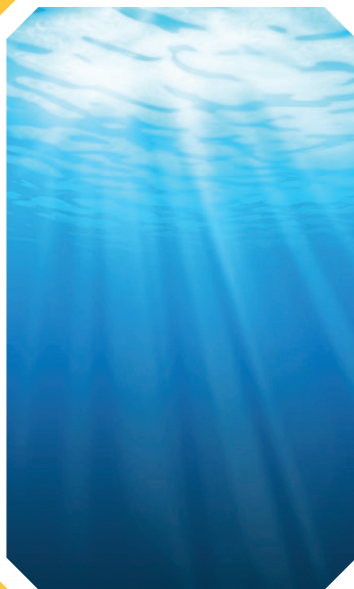
Red light has the longest wavelength. Violet light has the shortest wavelength.

### Scavenger Hunt

## Light Energy

Fact Card

**11**



The word refract means to change the direction, or bend, light waves.

When light travels through air, water, or glass, it refracts.

### Scavenger Hunt

## Light Energy

Fact Card

**12**

Light can travel through certain materials, such as glass or water. These materials are transparent.

Light cannot travel through other materials, such as steel or wood. These materials are opaque.





### Scavenger Hunt

## Light Energy

Fact Card

**13**



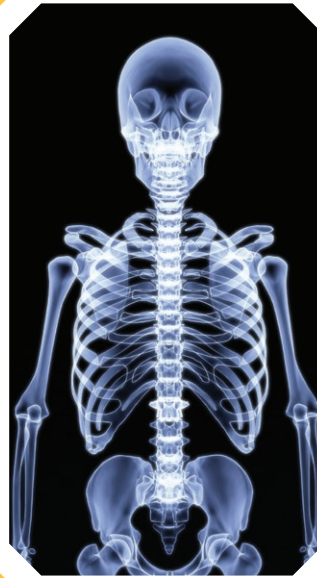
Solar panels are devices that turn light energy from the sun into electricity.

### Scavenger Hunt

## Light Energy

Fact Card

**14**



There are many types of light waves. The type of light waves we can see is called visible light.

We cannot see other types of light, such as UV light, infrared light, or x-ray light.

### Scavenger Hunt

## Light Energy

Fact Card

**15**



A lens is a piece of glass or plastic that focuses light in a special way.

Lenses are used in eyeglasses, microscopes, telescopes, cameras, and magnifying glasses.

### Scavenger Hunt

## Light Energy

Fact Card

**16**



Our eyes need light energy to work. If there were no light, we would not be able to see.



### Scavenger Hunt

**Light Energy**

Fact Card

**17**



A shadow is formed when an object blocks the path of light.

### Scavenger Hunt

**Light Energy**

Fact Card

**18**



In the 1600s, a scientist named Sir Isaac Newton studied rainbows made with a prism.

He identified the seven colors of a rainbow: red, orange, yellow, green, blue, indigo, and violet.



## Light Energy Scavenger Hunt

- Fact Card 1:** How long does it take light to travel from the sun to Earth?  
**8 minutes**
- Fact Card 2:** What chemical is in a firefly's body to help it produce light?  
**luciferin**
- Fact Card 3:** Where does the moon's light come from?  
**the sun**
- Fact Card 4:** What type of light can most insects see that people cannot?  
**ultraviolet**
- Fact Card 5:** How fast does light travel through space?  
**186,000 miles per second (or 300,000 kilometers per second)**
- Fact Card 6:** According to Albert Einstein, what moves faster than light?  
**nothing**
- Fact Card 7:** What is the process that plants use to convert light energy into food?  
**photosynthesis**
- Fact Card 8:** A single particle of light is called a...  
**photon**
- Fact Card 9:** A piece of glass cut with many angles to create a rainbow is called a...  
**prism**

## Light Energy Scavenger Hunt

**Fact Card 10:** Which color has the longest wavelengths of light?

**red**

**Fact Card 11:** What does the word *refract* mean?

**to change direction, or bend, light waves**

**Fact Card 12:** Which of these is opaque: *water, steel, or wood*?

**steel or wood**

**Fact Card 13:** What are solar panels?

**devices that turn the sun's light energy into electricity**

**Fact Card 14:** Name three types of light waves that we cannot see.

**ultraviolet light, infrared light, x-ray light**

**Fact Card 15:** Name five common items that use lenses.

**eyeglasses, microscopes, telescopes, cameras, and magnifying glasses**

**Fact Card 16:** Our eyes need \_\_\_\_\_ to be able to work.

**light**

**Fact Card 17:** A shadow is formed when...

**an object blocks the path of light**

**Fact Card 18:** In the 1600s, what famous scientist studied rainbows made with a prism?

**Sir Isaac Newton**