Teacher Created Resources®

READING COMPREHENSION ACTIVITIES

FOR SCIENCE

GRADE 3

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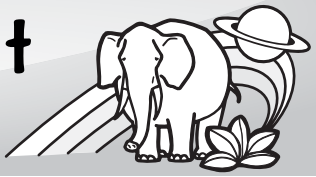
Seeing Colors at Night



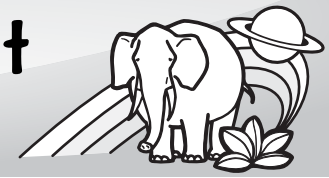
New words to practice.

Say each word ten times.

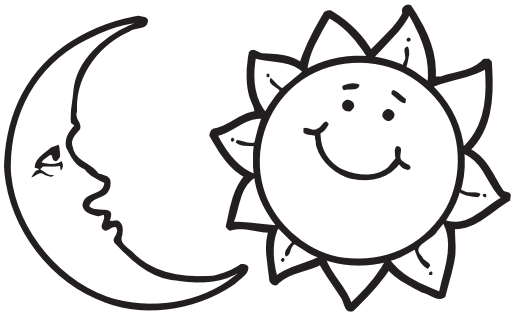
* source	* iris
* sensitive	* pupil
* image	* adapted
* dim	* compound

Choose one new word to write.

Seeing Colors at Night



You can see colors during the day. Why can't you see colors at night? You need light to see. Light comes from many different sources. The sun and moon are light sources. An electric bulb is a source, too. When light hits an object, light waves bounce off. The light is reflected. You have special light-sensitive cells in your eyes. These special cells sense the light. They send signals to your brain.



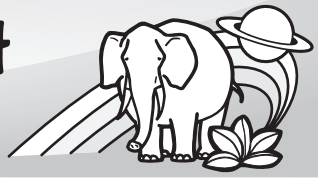
You have a lot of light-sensitive cells. You have well over one million! You have two types of light-sensitive cells. You have rod cells and cone cells. The cells get their names from the way they are shaped. Rod cells are used to see in black and white. Rod cells make a black and white image or picture. They only need a little light to work. You have a lot more rod cells than cone cells.

Cone cells let us see color. Cone cells make a colored image. They need a lot of light to work. Think about sunlight. Think about light from the moon. Sunlight is bright. Moonlight is dim. Our color-sensitive cone cells do not respond to the dim moonlight. There is not enough light.

The iris is the part of the eye that gives it its color. Your pupil looks like a black dot. It is in the center of your iris. The pupil is a small opening. Muscles in the iris control the amount of light passing through the pupil. The muscles make the pupil bigger and smaller. In dim light, your pupils open wide. Your eye wants to let in as much light as possible. In bright light, your pupils get smaller.

All eyes are not the same. One type of fish swims at the surface of the water. The top half of the fish eye is adapted to seeing in air. The bottom half is adapted to seeing in water. Flies have compound eyes. Compound eyes are made up of many little eyes joined together. All the eyes point in different directions. This lets a fly see all around it at the same time.

Seeing Colors at Night



After reading the story, answer the questions.
Fill in the circle next to the correct answer.

1. This story is mainly about
   - (a) rod cells.
   - (b) how our eyes respond to light.
   - (c) how all eyes are not the same.
   - (d) bright sunlight and dim moonlight.

2. What part of the eye needs a lot of light to work?
   - (a) the iris
   - (b) the pupil
   - (c) the rod cells
   - (d) the cone cells

3. It is a very bright, sunny day. You were outside. You just went inside. Your pupils would
   - (a) become compound.
   - (b) stay the same size.
   - (c) start to get bigger.
   - (d) start to get smaller.

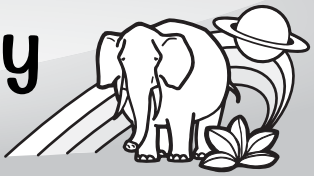
4. A dog's ear can hear high sounds we cannot hear. You could say that a dog's ear is more
   - (a) compound than ours.
   - (b) an image than ours.
   - (c) reflected than ours.
   - (d) sensitive than ours.

5. Think about how the word **bright** relates to **dim.** Which words relate in the same way?

   bright : dim

   - (a) hard : soft
   - (b) light: sun
   - (c) big : bigger
   - (d) fish : water

Hunter in the Night Sky



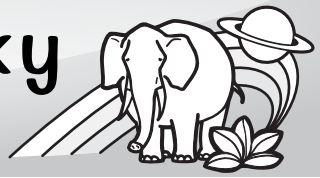
New words to practice.

Say each word ten times.

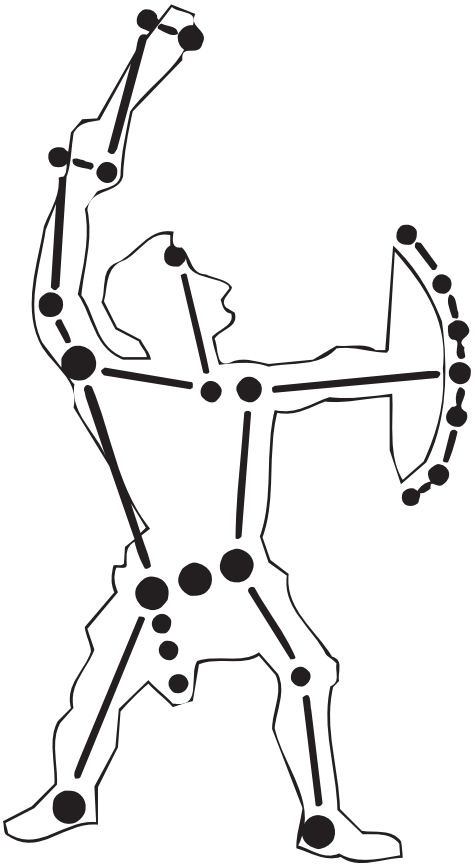
- mighty
- recognize
- groups
- constellations
- astronomers
- different
- Egypt
- placed

Choose one new word to write.

Hunter in the Night Sky



Look in the sky. You will see a mighty hunter. The mighty hunter is Orion. He is easy to find. He has a bright belt. The belt is made of three bright stars. The stars are all in a line. Why do people look for the mighty hunter? How did he get there? What is the story written up there in the sky?



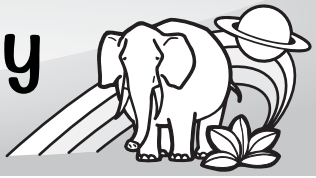
People have been watching the stars since long ago. They saw that stars move in set patterns across the sky. They learned to recognize groups of stars. They gave names to the groups of stars. These groups of stars are called constellations. Astronomers mapped the first constellations 5,000 years ago. Today, we recognize 88 constellations.

The astronomers made star maps. The maps helped people to remember where and when they would see the stars. They saw that stars seemed to move from east to west. The stars are not moving. The Earth spins from west to east. The turning Earth makes the stars look like they are moving. We see different constellations in different seasons. We see some constellations in the winter. We see different constellations in the summer.

Long ago, the constellations helped people know what time it was. For example, people in Egypt looked for the constellation Canis Major. Canis Major is the Great Dog. When people saw the Great Dog, they knew the Nile River would soon flood. The brightest star in the entire sky is Sirius. Sirius makes up part of the Great Dog. Sirius is known as the Dog Star. Other constellations told the people in Egypt when it was time to harvest their crops.

There are stories about Canis Major in old Greek myths. The myths say that Orion's friend was tricked. Orion's friend was tricked into shooting Orion. His friend was very sad when she found out what she had done. She placed Orion in the sky forever. Orion had two hunting dogs. The Great Dog was one of them. Orion's friend put the dogs in the sky, too. She placed them so they could follow their master's heels.

Hunter in the Night Sky



After reading the story, answer the questions.
Fill in the circle next to the correct answer.

1. This story is mainly about
   - ⓐ stars.
   - ⓑ astronomers.
   - ⓒ the Great Dog.
   - ⓓ constellations.

2. What did people know long ago in Egypt when they saw the constellation Canis Major?
   - ⓐ that the stars were moving
   - ⓑ that the Nile River would soon flood
   - ⓒ that Orion's friend had been tricked
   - ⓓ that it was time to harvest their crops

3. Think about how the word **constellation** relates to **stars.** Which words relate in the same way?

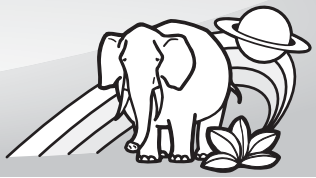
   constellation : stars

   - ⓐ dog : puppy
   - ⓑ paper : books
   - ⓒ forest : trees
   - ⓓ child : schools

4. An astronomer is someone
   - ⓐ who was tricked.
   - ⓑ who studies stars.
   - ⓒ who studies myths.
   - ⓓ who is from Egypt.

5. If you saw Orion in winter, it is likely that
   - ⓐ you would not see Orion in the summer.
   - ⓑ you would be able to see Orion in all the seasons.
   - ⓒ you would not be able to see Sirius, the Dog Star.
   - ⓓ you would not be able to see the constellation the Great Dog.

Answer Key



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Page 17—Moon Tricks
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Page 26—Adding Up an Elephant
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Page 29—A 200,000 Year-Old Meal
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Page 32—A Riddle
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Page 38—Burning Ships
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