

## 31. Animal Eyes

by Cheryl Block

**A** <sup>1</sup>Not all animal eyes are the same. <sup>2</sup>They can vary in size, position, and use. <sup>3</sup>Animals that hunt at night often have extra big eyes to let in more light. <sup>4</sup>The tarsier\* has the largest eyes of any animal its size. <sup>5</sup>It can see more easily in the dark than other animals. <sup>6</sup>Its eyes are so big, however, that they do not move. <sup>7</sup>The tarsier must turn its head around instead. <sup>8</sup>It can turn its head 180 degrees and look behind itself!

**B** <sup>9</sup>Most predators\*\* have eyes that face forward. <sup>10</sup>Because the two eyes are close, they work together to focus more easily on prey. <sup>11</sup>Cats and owls have eyes in the front. <sup>12</sup>Most plant-eaters, such as deer and rabbits, have eyes farther apart on the sides of their heads. <sup>13</sup>These eyes let the animal look in all directions to watch for predators, but it is harder for the eyes to work together. <sup>14</sup>Some lizards have an eye on each side that can move independently of one another. <sup>15</sup>They can look in two different directions at the same time!

**C** <sup>16</sup>Most insects have compound eyes. <sup>17</sup>A compound eye is made



up of hundreds of tiny single eyes grouped together. <sup>18</sup>Each single eye has its own lens and sees only part of an image. <sup>19</sup>Each eye also points in a slightly different direction, so each sees a different piece of the image. <sup>20</sup>The insect looks at all these pieces at the same time. <sup>21</sup>It's probably like looking through a kaleidoscope. <sup>22</sup>The many little eyes of the compound eye, however, can detect the slightest motion.

**D** <sup>23</sup>As you can see, there's a lot of variety in animal eyes. <sup>24</sup>Each animal's eyes are adapted to fit its needs.

\*tarsier—a small, nocturnal mammal

\*\*predator—an animal that hunts other animals for food

**DIRECTIONS:** Circle the letter next to the correct answer or write the answer on the lines given. When asked for evidence, write the number of the sentence or the letter of the paragraph that best supports the answer.

1. A larger eye helps an animal to see at night because it
  - A. lets the animal see a wider area.
  - B. increases the amount of light to the eye.
  - C. can move in more directions.
  - D. can make objects seem larger.

Which sentence is the best evidence? \_\_\_\_\_

2. Because eyes on the sides of the head are far apart, they do not

\_\_\_\_\_

Which two sentences are the best evidence? \_\_\_\_\_, \_\_\_\_\_

3. Because a plant-eater can see in many directions, it can
  - A. find food more easily.
  - B. avoid being eaten.
  - C. avoid flying insects.
  - D. find other plant-eaters.

Which sentence is the best evidence? \_\_\_\_\_

4. An insect sees an image in pieces because
  - A. each smaller eye sees separately.
  - B. it looks at all the pieces at the same time.
  - C. it has a kaleidoscope for an eye.
  - D. each eye points in different directions.

Which two sentences are the best evidence? \_\_\_\_\_, \_\_\_\_\_

5. Why do animals' eyes differ?

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