Background For most of history, people have believed that animals are totally unlike human beings. A great scholar from the 1600s, René Descartes (də kär’təs), described animals as “machines”—incapable of thinking. In the early 1900s, the scientist Ivan Pavlov performed experiments that led many to believe that animals always acted predictably. In recent years, however, scientists have studied animal emotions and thought processes.

Can Animals Feel and Think?

Informational Text by DeShawn Jones

1. READ As you read lines 1–13, begin to collect and cite text evidence.
   • Circle the central idea in the first paragraph, and underline the details that support the idea.
   • Circle the central idea in the second paragraph, and underline the supporting details.
   • In the margin, paraphrase each of the two central ideas.

Some people think that animals are just “animals,” and that they have nothing in common with human beings. A growing body of scientific research, however, suggests otherwise. Most scientists now think that animals, especially mammals, can experience emotions. Other scientists take this a step further by saying that some animals actually think.

Think about what most dogs do when you scold them. They lower their heads and slink off to some secluded spot. Only when they sense that you are no longer angry do they come back out. On the other hand, when you return home after a day at school, your dog probably leaps around you, tail wagging furiously. But, do these reactions really indicate that dogs and other mammals feel emotions? They certainly seem to.
There are plenty of examples that seem to indicate that animals feel emotions such as fear, anger, joy, and grief. If the antelope did not feel fear, it would stand still or continue grazing instead of sprinting away at the sight of a cheetah. Mammals such as dolphins, chimpanzees, and rats show the feeling of joy in their love of playful activity. Elephants show signs of long-lasting grief when a member of the herd dies. Other mammals such as sea lions, bears, and moose also seem to become upset by a death in their group.

Whether or not animals can actually think is a more difficult question. Do animals, for example, have the capacity to learn, solve problems, or guess what other animals are thinking? Research suggests that some animals can do this and more.

Chimpanzees in large captive colonies often cooperate with certain other chimpanzees in the colony. They have then been observed to suddenly switch alliances and seemingly double-cross each other. This behavior suggests that chimpanzees can, like humans, change their minds or feel resentment.

Pigs offer an interesting example of problem solving. A scientist from Bristol University discovered that stronger pigs looking for food would follow the lead of a weaker but smarter pig. The smarter pig would find the food. Then, the smarter pig would trick the stronger pig by distracting it. While the stronger pig wasn't looking, the smarter pig would dive in and gobble up the food.

2. **REREAD** Write a summary of lines 1–13.  

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3. **READ** As you read lines 14–36, continue to cite textual evidence.
   - Circle a sentence in lines 14–21 that informs the reader of the author's point of view.
   - Underline at least one fact or example in each paragraph that supports the author's point of view:
Perhaps the most amazing example of an animal thinking involves not a mammal, but a bird. Betty the crow makes her home in a laboratory in Oxford, England. She devised an ingenious solution for getting a treat in the form of food that scientists had inserted in a long tube. When she first tried to get the treat, she stuck her beak into the tube but found that the tube was too deep for her beak to reach the treat. Undaunted, she picked up a piece of wire that the scientists had placed beforehand in her cage. She bent the wire into a hook and used the hook to lift the treat from the tube. She did this not once, but repeatedly. What really amazed the scientists observing Betty was that she had never seen a piece of wire before. But this bird figured out the challenge, decided to use the wire, and then shape it into the perfect tool for getting the treat.
### Brain Weights of Different Species

<table>
<thead>
<tr>
<th>Species</th>
<th>Brain Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elephant</td>
<td>6,000 grams</td>
</tr>
<tr>
<td>Adult Human</td>
<td>1,350 grams</td>
</tr>
<tr>
<td>Monkey</td>
<td>97 grams</td>
</tr>
<tr>
<td>Dog</td>
<td>72 grams</td>
</tr>
<tr>
<td>Cat</td>
<td>30 grams</td>
</tr>
<tr>
<td>Owl</td>
<td>2.2 grams</td>
</tr>
</tbody>
</table>

Some insects, despite having a brain the size of a pinhead, can seemingly behave as intelligently as bigger animals. Larger animals need larger brains to interpret more sensory information and to control their greater number of muscles.

What these examples seem to show is that animals are more like us than we may have once thought. It seems clear that animals can feel a range of emotions. It seems just as clear that some animals show an uncanny ability to do what appears to be "thinking."

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5. **REREAD AND DISCUSS** Reread lines 37–53. With a small group, discuss whether the facts and examples the author cites provide sufficient support for his point of view. Be sure to consider the information presented in the diagram, chart, and captions.

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**SHORT RESPONSE**

Cite Text Evidence Write a summary of the article. Review your reading notes, and cite text evidence in your summary.