Name: **Date:**

HANDS-ON ACTIVITY

Exploring Adaptations

A toolbox has a wide variety of tools, each made to perform a specific task. But what if the ideal tools are not available? In this activity, you will relate this problem to the natural process of adaptation.

MATERIALS

- ruler
- wood screw (1)
- wooden block

PREDICT

What functions do adaptations serve?

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PROCEDURE

1. Obtain a wooden block and a wood screw from your teacher.
2. Find a way to insert the screw into the block of wood as far as possible. Use any device, method, or object to do this other than a tool designed for this purpose. Be sure not to do anything that could cause damage or injury.
3. After trying for five minutes, measure the length of the screw that remains outside of the wood block. Subtract this length from the total length of the screw to determine how far you were able to insert the screw into the wood.

ANALYZE AND CONCLUDE

1. List the objects you used and the strategies you tried to accomplish this task.

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2. Which of your methods worked best?

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3. Compare your results and strategies with those of another group. Evaluate the effectiveness of each strategy.

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4. How do adaptations differ from traits that you can acquire through a lifetime, such as bigger muscles from strength training?

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5. A woodpecker has adaptations for chipping wood and getting insects from cracks in tree bark. How might its beak, tongue, neck, and feet be different from those of other birds?

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