Energy: Collisions
Check for Understanding

1. Use the picture below to help you answer the questions about Maria and Angela.

Angela  Maria

If both Maria and Angela roll to the bottom of the hill from where they are as shown in the picture, circle the name of the cyclist who will make it to the bottom first.

Maria Angela They will arrive at the same time.

Use your knowledge of energy to explain why that cyclist will reach the bottom first.

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2. Which of these pictures show potential energy that can be converted to kinetic energy? Circle all of the examples that apply.

Boy on diving board

Bow and arrow with arrow pulled

People on a bench

Children at the bottom of a sled hill

Choose one picture you circled. Explain how potential energy is shown in the picture and how it will be converted to kinetic energy in that picture.

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3. Use the picture below to answer the questions.

Identify one simple machine in this picture.

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How does this simple machine reduce the amount of effort needed?

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4. Draw an arrow that points to where the potential energy is in this picture.

Describe what your arrow is pointing to and how potential energy will be converted to kinetic energy.

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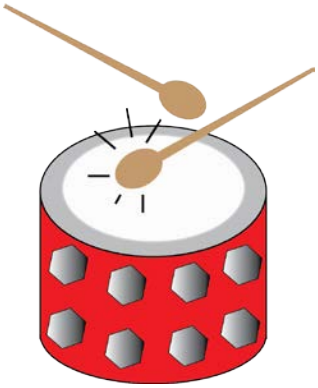
5. Explain why a drum gets louder when hit harder. Use the words **collision** and **kinetic energy** in your answer.



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