



Energy Transfer in the Joiner's Shop

Grade 7 Science

Name: _____

Date: _____

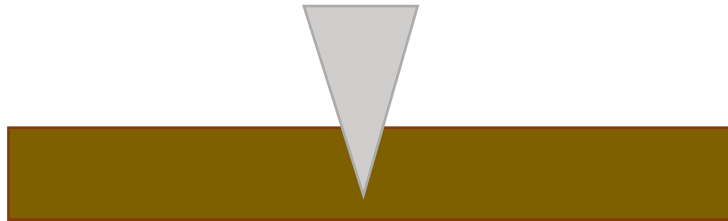
Activity 1: In the video the joiner used a maul and froe to split a piece of wood into quarters. *Answer the following questions about this activity.*

1. How did the joiner create more potential energy for the maul?

2. What force created the kinetic energy of the maul?

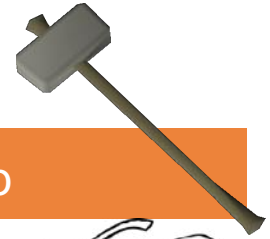
3. The energy possessed by the maul due to its motion or its stored energy is what kind of energy?

4. Using arrows, draw the directions of energy transfer caused by the wedge-shaped froe moving through the wood.

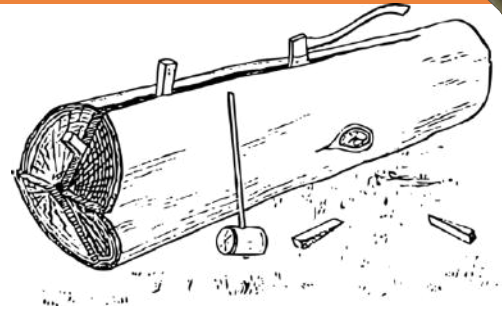


Activity 2: Energy was transferred at various points in the process of splitting wood. *Beginning with the maul and ending with split wood, draw and describe how energy was transferred at each point of the process.*



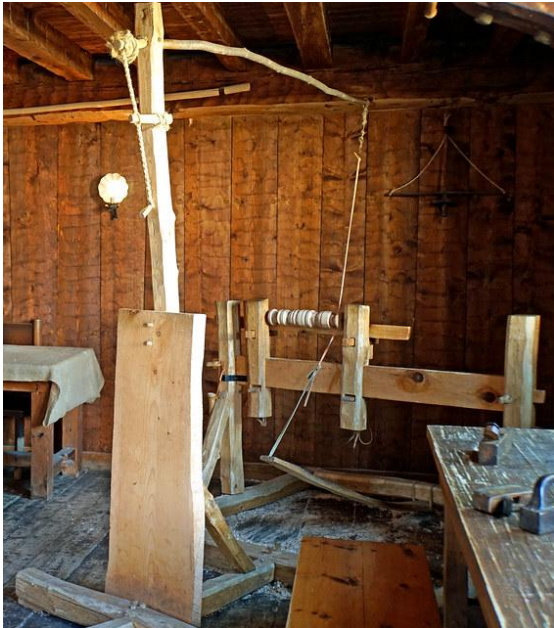


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Activity 3:

The lathe used by the joiner in the video is a compound machine. *Answer the following questions about this machine.*



1. What are all of the simple machines that create this compound machine?

2. How does the lathe use potential energy to create kinetic energy?

3. What force is creating heat and loss of mechanical efficiency on the lathe?

