

School to Home

LESSON 2

Using Machines

Directions: Use your textbook to answer each question.

- 1. Not all machines use electricity, gasoline, or other forms of chemical energy. You use a machine when you brush your teeth or turn on a faucet.**

What is a machine?

- 2. A machine makes work easier by changing the size or direction of the input force, or the distance over which a force acts.**

How is input force related to input work?

- 3. Some machines, such as a screwdriver, decrease the input force. If you tried to turn a tight screw with just your fingers, it would take a large amount of force. If you use a screwdriver, you would make use of the screwdriver's mechanical advantage.**

What is mechanical advantage?

- 4. Friction prevents the amount of output work from ever being greater than the amount of input work. If you can reduce the amount of friction, you will improve the efficiency of the machine.**

Would you expect a well-lubricated machine to have 100 percent efficiency? Explain your answer.

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