Simple Machine Questions

1. A broom is a lever. Where is the fulcrum? Explain.

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2. An electric fan is made up of several simple machines. Tell where you would find an inclined plane on a fan. Also, tell where you would find a wheel and axle.

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3. Explain how the shoelaces on your shoes are similar to pulleys.

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4. The floor of a bathtub is an inclined plane. Explain.

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1. A broom is a lever. Where is the fulcrum? Explain.

A broom’s fulcrum is the hand that holds the top of the broomstick when you sweep. The broom is a lever and the hand in the top is the stationary point upon which the broom pivots.

2. An electric fan is made up of several simple machines. Tell where you would find an inclined plane on a fan. Also, tell where you would find a wheel and axle.

The blades on an electric fan are inclined planes. They are sloped to force air forward when the blade spins. The blade can also be a wheel attached to an axle on the motor.

3. Explain how the shoelaces on your shoes are similar to pulleys.

Shoelaces are like the rope on a pulley system. They are threaded through the eyes of the shoes, which act like the wheel of a pulley. When you pull on your shoelaces, the eyes or pulleys cause force on the laces to change direction.

4. The floor of a bathtub is an inclined plane. Explain.

The floor of a bathtub slopes toward the drain. This allows water to flow out with the force of gravity.