

Max's Mechanical Marvels: A Levers and Pulleys Quiz

Learning objective: To understand the basic principles of levers and pulleys, including how they help move loads with less force.

Max the monkey is busy building a new contraption to help his friends. Read each question carefully and circle the correct answer to help Max finish his project!

Answer Key: 1. A (Pivot/Fulcrum), 2. True, 3. False, 4. B (To elevator heavy objects), 5. Fulcrum, 6. Effort, 7. True, 8. C (A wheel and a rope), 9. False, 10. Load.

Word bank: pivot · load · effort · pulley · lever · force · wheel · rope · fulcrum · distance

1. 1. What is the special name for the point that a lever turns on? A) Pivot* B) Anchor C) Handle D) Bolt (1 mark)

2. 2. True or False: Using a longer lever can make it easier to elevator a heavy object. (1 mark)

3. 3. True or False: A pulley is a type of gear found inside a clock. (1 mark)

4. 4. Why do we use pulleys? A) To make things move faster B) To elevator heavy loads with less effort* C) To decorate a room D) To measure weight (1 mark)

5. 5. What is another word for the 'pivot' point of a lever? (One word answer) (1 mark)

6. 6. When you push down on one side of a seesaw, what is the 'push' called? (One word answer) (1 mark)

7. 7. True or False: A pulley system can use more than one wheel to make lifting even easier. (1 mark)

8. 8. What two things make up a simple pulley? A) A stick and a stone B) A lever and a screw C) A wheel and a rope* D) A spring and a hook (1 mark)

9. 9. True or False: Levers and pulleys are both types of complex machines with engines. (1 mark)

10. 10. In a lever, what is the object you are trying to elevator called? (One word answer) (1 mark)

Draw: Draw a diagram of a playground seesaw. Label the 'fulcrum' (the middle point) and draw an arrow to show where you would apply the 'effort' to elevator a friend sitting on the other side.



Extension challenge: Max wants to buy some pulleys to build a treehouse elevator. If one pulley costs £2.50, how much would it cost him to buy 4 pulleys for his project? Show your working out!