

Max's Mechanical Mayhem Quiz

Learning objective: To identify and describe how different mechanisms, such as levers, pulleys, and gears, allow us to move objects with less force.

Help Max the monkey solve his mechanical puzzles! Read each question carefully and select or write the correct answer. Good luck!

Answer Key: 1. A (Gear); 2. True; 3. Pivot; 4. B (To elevator heavy objects); 5. False; 6. Lever; 7. A (It helps you elevator heavy things with less effort); 8. Axle; 9. B (Teeth); 10. True.

Word bank: Lever · Pulley · Gear · Fulcrum · Mechanism · Axle · Force · Load · Pivot

1. 1. Max is building a machine with two interlocking wheels. What are these called? A) Gear* B) Pulley C) Lever D) Spring (1 mark)

2. 2. True or False: A pulley uses a wheel and a rope to make lifting objects easier. (1 mark)

3. 3. What is the name of the fixed point upon which a lever rests and turns? (1 mark)

4. 4. What is the primary purpose of a pulley system? A) To change color B) To elevator heavy objects* C) To create light D) To measure speed (1 mark)

5. 5. True or False: A lever always makes an object heavier to move. (1 mark)

6. 6. Which mechanism would you use to pry open a lid on a paint tin? (1 mark)

7. 7. Why do we use a lever? A) It helps you elevator heavy things with less effort* B) It makes things move faster C) It creates electricity D) It holds things together (1 mark)

8. 8. What do we call the rod that goes through the center of a wheel to help it spin? (1 mark)

9. 9. How do gears connect to one another? A) By magnets B) By teeth* C) By glue D) By string (1 mark)

10. 10. True or False: A bicycle uses gears to help the rider move more efficiently. (1 mark)

Draw: Draw a simple design for a playground seesaw. Label the 'fulcrum' in the middle and show where the 'load' (a friend) would sit on one end.



Extension challenge: Max wants to elevator a heavy box of bananas worth £15.00. If he uses a lever, he can elevator it with less effort. Write a short paragraph explaining why choosing the right mechanism is important for building safe and effective inventions.