

Year 4 Science: Forces Assessment

Learning objective: To identify and describe the effects of forces on objects and surfaces.

Read each question carefully. Use the word bank if you need help with spelling. Write your answers clearly on the lines provided.

Max the monkey is playing in the park. He uses a force to move his toys. Sometimes he has to pull a toy, and sometimes he has to push it. He notices that toys move differently on grass than they do on the smooth path.

Word bank: friction · surface · magnet · force · push · pull · rough · smooth

1. 1. Max pushes his toy car. Is a push a type of force? Yes or No. (1 mark)

2. 2. Name one thing Max could pull to make it move. (1 mark)

3. 3. Which surface will make the toy car move slower: the smooth path or the rough grass? Explain why. (3 marks)

4. 4. Nova the owl uses a magnet to pick up paperclips. What force does a magnet use? (2 marks)

5. 5. Look at the two pictures below. Describe how you would move a heavy box across a floor. Would you push or pull it? Why? (3 marks)

6. 6. Imagine you are testing how fast a toy car travels on different materials like carpet, wood, and bubble wrap. Write a short report (5 sentences) about what you think will happen. Use the words 'friction' and 'surface' in your writing. (5 marks)

Draw: Draw an arrow to show the direction of the force if Max is pushing a ball across the grass.



Extension challenge: Total: /25. Challenge: Why do you think athletes wear special shoes with grip on the bottom for running on a track?