bananalearn

LEARN IT. UNDERSTAND IT. TRY IT.

Magnets and magnetic materials for Grade 6

Practice worksheet - Science · Grade 6

Name: _____ Date: _____

Show your working. Answers and explanations follow on a separate page.

Try each task before opening its answer. Give an example or reason, not only a label.

Write an answer and your reason before opening the explanation. Check the reasoning as well as the final answer.

1. What happens when north faces south?

2. What happens when south faces south?

3. Name one strongly attracted common material.

4. Are all metals strongly attracted by ordinary magnets?

5. Does attraction alone prove a test object is a magnet?

6. Which observation is stronger evidence of another magnet: attraction or repulsion?

7. Must magnets touch to exert a force?

8. What can interfere with a compass observation?

Practice continued

9. Are drawn field lines physical threads?

10. Would breaking a bar magnet normally create a north-only piece?

11. Name one variable to control when comparing magnets with clips.

12. Does failure to lift a heavy object prove no attraction?

13. Why keep small magnets away from young children?

14. Why can a recycling magnet not sort every metal?

Answers and explanations

Answer key - Science · Grade 6

Magnets and magnetic materials for Grade 6

1. Attraction.

Unlike poles attract.

2. Repulsion.

Like poles repel.

3. Iron.

Many steels are also strongly attracted.

4. No.

Copper and aluminium are common counterexamples.

5. No.

Unmagnetised iron can also be attracted.

6. Repulsion by a known pole.

Ordinary unmagnetised iron does not repel a known pole in this test.

7. No.

Magnetic effects can act across a gap.

8. Nearby magnets or suitable metal objects, for example.

The needle responds to the local field.

9. No.

They are a model of field direction and strength.

10. No.

The smaller pieces still have both poles.

11. For example: use identical clips and the same arrangement.

Different procedures can change the count.

12. No.

The force may be too small to lift its weight.

13. Swallowing them can cause serious injury.

Use safe supervised materials.

14. Different metals have different magnetic responses.

The method selects a property, not the general label metal.