Name: Date: Score: / 8

Static Electricity: Learn and Practice

Charges, sparks and invisible fields

Read each question. Circle the best answer.

💡 Electric Charges and Fields

- Objects become charged when electrons move from one object to another.
- Like charges repel and opposite charges attract.
- The force acts through an electric field, even without touching.
- balloon rubbed on hair sticks to a wall: static charge

1 What happens when two negative charges come close?

A. They repel B. Nothing at all

C. They cancel to zero D. They attract

2 🎈 A balloon rubbed on hair gains electrons. What charge does it have?

A. Magnetic B. Positive C. Neutral

D. Negative

3 What is the area around a charge where it can push or pull called?

A. Magnetic pole B. Electric field

C. Gravity well D. Sound wave

4 🌩️ Lightning is a giant example of what?

A. Magnetism B. A static electric discharge

C. Sound waves D. Gravity

5 Which particles move when objects become charged by rubbing?

A. Neutrons B. Protons C. Electrons

D. Whole atoms

6 After rubbing a balloon on your hair, why do the hairs stand up and spread apart?

A. Air pushes them up

B. The hairs become heavier

C. The hairs have like charges and repel

D. The hairs are magnetic

7 What happens when a positive and a negative charge come close?

A. They repel B. They explode C. They attract

D. They turn into magnets

8 Why do you sometimes get a shock touching a doorknob in winter?

A. Cold air is electric

B. The doorknob is a battery

C. The door is magnetic

D. Built up charge jumps to the metal

✏️ Explain it! Write two facts you learned about static electricity.

ANSWER KEY

Static Electricity: Learn and Practice (answers)

Charges, sparks and invisible fields

Read each question. Circle the best answer.

1 What happens when two negative charges come close?

A. They repel B. Nothing at all

C. They cancel to zero D. They attract

Like charges push each other away.

2 🎈 A balloon rubbed on hair gains electrons. What charge does it have?

A. Magnetic B. Positive C. Neutral

D. Negative

Extra electrons give the balloon a negative charge.

3 What is the area around a charge where it can push or pull called?

A. Magnetic pole **B. Electric field**

C. Gravity well D. Sound wave

An electric field surrounds every charged object.

4 🌩️ Lightning is a giant example of what?

A. Magnetism **B. A static electric discharge**

C. Sound waves D. Gravity

Charge builds up in clouds and then jumps as a huge spark of lightning.

5 Which particles move when objects become charged by rubbing?

A. Neutrons B. Protons **C. Electrons**

D. Whole atoms

Electrons are on the outside of atoms, so they can rub off onto other objects.

6 After rubbing a balloon on your hair, why do the hairs stand up and spread apart?

A. Air pushes them up

B. The hairs become heavier

C. The hairs have like charges and repel

D. The hairs are magnetic

Each hair has lost electrons and has the same charge, so they push apart.

7 What happens when a positive and a negative charge come close?

A. They repel B. They explode **C. They attract**

D. They turn into magnets

Opposite charges pull toward each other.

8 Why do you sometimes get a shock touching a doorknob in winter?

A. Cold air is electric

B. The doorknob is a battery

C. The door is magnetic

D. Built up charge jumps to the metal

Charge builds on your body, then jumps to the metal as a tiny spark.