DoodleBeez Worksheets

Grades 6 to 8 | Science

Name: Date: Score: / 8

Friction and Air Resistance: Learn and Practice

Forces that push back against motion

Read each question. Circle the best answer.

💡 Friction

- Friction is a force between surfaces that opposes motion.
- Rough surfaces usually create more friction than smooth ones.
- Air resistance is friction from air, and it grows as speed increases.
- skydiver opens a parachute: more air resistance: slower fall

1 Why do machines with moving parts need oil?

A. Oil cools the air B. Oil makes parts heavier

C. Oil adds friction D. Oil reduces friction

2 💨 What is air resistance?

A. Gravity pulling up

B. Friction from air on a moving object

C. A type of magnet force

D. A push from the ground

3 Why do people sprinkle sand on icy sidewalks?

A. To decrease friction B. To increase friction

C. To make it shiny D. To melt the ice instantly

4 🙌 You rub your hands together fast. What does the energy lost to friction become?

A. Only light B. Extra mass

C. Nothing, it disappears D. Thermal energy

5 🪂 Why do parachutes slow skydivers?

A. They are magnetic B. They are very heavy

C. They catch lots of air

D. They push the ground

6 Which surface gives the most friction for a sliding block?

A. Ice B. Polished glass C. Sandpaper

D. Wet tile

7 What does friction do to a sliding object?

A. Changes its color B. Speeds it up forever

C. Slows it down D. Makes it float

8 🚴 Why do racing cyclists crouch low?

A. To see the road B. To increase friction

C. To add weight D. To reduce air resistance

✏️ Explain it! Write two facts you learned about friction and air resistance.

ANSWER KEY

Friction and Air Resistance: Learn and Practice (answers)

Forces that push back against motion

Read each question. Circle the best answer.

1 Why do machines with moving parts need oil?

A. Oil cools the air B. Oil makes parts heavier

C. Oil adds friction **D. Oil reduces friction**

Oil lets parts slide smoothly, which reduces friction and wear.

2 💨 What is air resistance?

A. Gravity pulling up

B. Friction from air on a moving object

C. A type of magnet force

D. A push from the ground

Air pushes back on things moving through it. That push is air resistance.

3 Why do people sprinkle sand on icy sidewalks?

A. To decrease friction **B. To increase friction**

C. To make it shiny D. To melt the ice instantly

Sand makes the surface rougher, giving your boots more grip.

4 🙌 You rub your hands together fast. What does the energy lost to friction become?

A. Only light B. Extra mass

C. Nothing, it disappears **D. Thermal energy**

Friction turns motion energy into thermal energy, so your hands warm up.

5 🪂 Why do parachutes slow skydivers?

A. They are magnetic B. They are very heavy

C. They catch lots of air

D. They push the ground

A big parachute creates lots of air resistance, which slows the fall.

6 Which surface gives the most friction for a sliding block?

A. Ice B. Polished glass **C. Sandpaper**

D. Wet tile

Rough sandpaper grips the block much more than smooth or slippery surfaces.

7 What does friction do to a sliding object?

A. Changes its color B. Speeds it up forever

C. Slows it down D. Makes it float

Friction acts against motion, so it slows things down.

8 🚴 Why do racing cyclists crouch low?

A. To see the road B. To increase friction

C. To add weight **D. To reduce air resistance**

A smaller shape pushes through less air, so there is less drag.