



Gravity

Name: _____

Date: _____

Grade: Grade 5

Part A: Fill in the Blank

Write the missing word or number on each line.

1. If a ball takes 2 seconds to fall to the ground, the round trip up and back takes about _____ seconds.
2. A pendulum swings because gravity always pulls the bob back toward the _____ point.
3. If gravity pulls down with 9.8 m/s^2 , after 1 second a free-falling object moves about _____ m/s.
4. After 2 seconds, the same free-falling object reaches a speed of about _____ m/s.
5. A pendulum bob is heaviest at the bottom of its swing because gravity has done positive _____.
6. A satellite orbits because Earth gravity pulls it _____ toward the planet.
7. On the Moon, you would weigh about _____ as much as on Earth (one-sixth).
8. A pendulum swings back and forth because of _____ pulling it down at each end.
9. When you jump, you come back down because _____ pulls you toward Earth.

Part B: Matching

Match each item on the left to the correct answer on the right.

1. Match each item to its correct answer.

Pendulum bob at top	→ _____	Slowing down due to gravity
Pendulum bob at bottom	→ _____	Maximum speed in the swing
Ball going up	→ _____	Speeding up due to gravity
Ball coming down	→ _____	Highest point with zero speed

Answer Key · Gravity · Grade: Grade 5

Part A: Fill in the Blank

Write the missing word or number on each line.

1. If a ball takes 2 seconds to fall to the ground, the round trip up and back takes about 4 seconds.
2. A pendulum swings because gravity always pulls the bob back toward the lowest point.
3. If gravity pulls down with 9.8 m/s squared, after 1 second a free-falling object moves about 9.8 m/s.
4. After 2 seconds, the same free-falling object reaches a speed of about 19.6 m/s.
5. A pendulum bob is heaviest at the bottom of its swing because gravity has done positive work.
6. A satellite orbits because Earth gravity pulls it inward toward the planet.
7. On the Moon, you would weigh about 1/6 as much as on Earth (one-sixth).
8. A pendulum swings back and forth because of gravity pulling it down at each end.
9. When you jump, you come back down because gravity pulls you toward Earth.

Part B: Matching

Match each item on the left to the correct answer on the right.

1. Match each item to its correct answer.

Pendulum bob at top	→ <u>Highest point with zero speed</u>	Slowing down due to gravity
Pendulum bob at bottom	→ <u>Maximum speed in the swing</u>	Maximum speed in the swing
Ball going up	→ <u>Slowing down due to gravity</u>	Speeding up due to gravity
Ball coming down	→ <u>Speeding up due to gravity</u>	Highest point with zero speed