

# GRAVITATION STUDY GUIDE

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Name \_\_\_\_\_

Period \_\_\_\_\_

## Universal Gravitation – Ch. 11

1. Define gravity and list results of the effects of gravity.
2. State Newton's Law of Universal Gravitation using words and a formula.
3. Calculate the gravitational attraction between two 1500 kg objects, 2 m away.
4. Give examples to illustrate the effect of distance and mass on the gravitational force between two objects.

## Gravitational Interactions – Ch. 12

5. What is the gravitational field strength near the surface of the Earth?
6. Give the formula for weight and the acceleration of gravity on a planet.
7. Understand how changes in mass or radius affect the acceleration of gravity on a planet.
8. Understand the acceleration of gravity inside the Earth's surface.
9. Understand how gravity affects tides on Earth.
10. Understand how black holes are formed.
11. Explain what happens to the mass and radius of a star when it becomes a black hole.

