

Name _____

Period _____

Video "The Universe-Gravity"

1. All objects with mass or _____ produce gravity.
2. What role did gravity play in the formation of Earth?
3. Explain why the tennis ball seems to float above the scientist's face at the top of Superman the Escape at Magic Mountain.
4. To go into orbit, a cannonball, or any other object, would need to be fired at _____ mph.
5. Explain why the Moon doesn't fall to Earth.
6. Explain what happens to your velocity as you fall through a tunnel from one side of the Earth to the other. (be sure to talk about your velocity as you fall to the center of the Earth and then as you pass the center and make your way to the surface again on the other side)
7. What did Einstein say massive objects do to space?
8. For an object to escape from the Earth's gravity, it must travel at _____ mph.
9. Describe what the Slingshot Effect does for space probes.
10. Why do passengers on the Zero G Flight experience weightlessness as the plane drops?
11. Who stated that acceleration is the same as gravity?
12. Extended periods of weightlessness leads to bone loss, muscle deterioration, and _____.

13. For extended space flights to Mars and beyond, how could astronauts prevent the effects listed above?

14. Any change in gravity sends a _____ through space.

15. Give three examples of something that can cause a change in gravity.