

True or False. Choose **True** if the statement is correct and choose **False** if the statement is wrong.

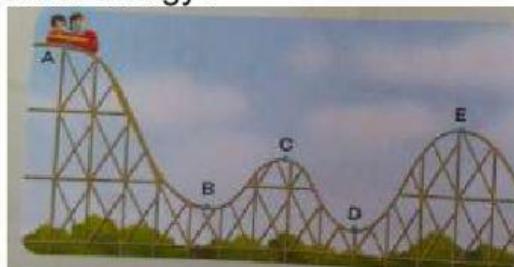
Gravity

1. The smaller the mass of an object, the lesser the force needed to change its direction. True False
2. Weight depends on the mass of the object. True False
3. Gravity is a non-contact force which means a force without physical contact between the objects. True False
4. The heavier the object that is hung onto a spring scale, the more the spring in the scale is stretched. True False
5. On Earth, our mass is heavier while on the Moon, our mass will be lighter or lesser than on Earth. True False

Choose your best answer.

6. A roller-coaster ride takes a following path. At which point will the roller coaster have the most gravitational potential energy?

a. A b. B
c. C d. E



7. At which point will the roller coaster have the least gravitational potential energy?

a. B b. C c. D d. E

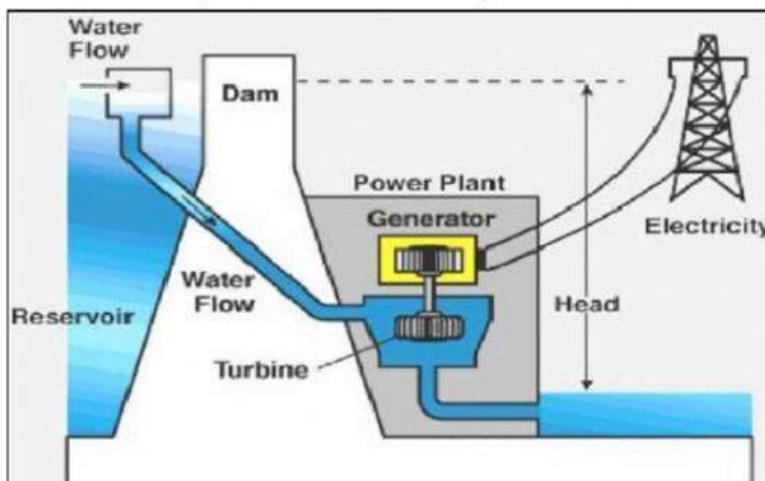
8. A toy car is placed on a balance scale. The set-up (as shown below) is moved from the Earth to the Moon. What will the set-up look like on the Moon?

A. A b. B
c. C d. D



9. Look at the diagram of the hydroelectric power station. What energy transformation makes the turbine turn the generator to produce electricity?

- a. Water from reservoir transforms kinetic energy into potential energy to spin the turbine that makes the generator produces electricity.
- b. Water flow from the reservoir transforms the potential energy into kinetic energy to spin the turbine that turns the generator produces electricity.
- c. Water flow from the lower reservoir turns the potential energy spins the generator that makes the turbine produces electricity.



10. What makes the planetary objects stay in orbit?

- a. Gravity exerted by the Sun to the planetary objects.
- b. Gravity exerted by the planetary objects to the Sun.
- c. Gravity of the Moons and the Sun joined force to keep the planetary objects in orbit.
- d. The heat and light from the Sun release so much gravity to the planets.

11. Look at the picture. What is most likely to happen if an astronaut is in outer space for a long period of time?

- a. His bones will become stronger.
- b. He will gain weight.
- c. He will grow shorter.
- d. He will lose muscle mass.



Drag the words from the box to fill in the blanks.

Gravity

mass

balance scale

spring scale

12. Weight refers to the amount of _____ acting on a mass.

13. A _____ measures weight in Newtons.

14. _____ refers to the amount of matter in an object.

15. It can be measured by a _____ in grams.

Choose your answer on how the hydroelectric power station transforms from one energy into another form of energy. Drag the correct energy from the box below and drop them into the correct order. **5 points.**

