

Mass & Weight Concepts

1. Mass and weight are two very different concepts that are often confused. Give the definitions of each in the space below:
MASS:

WEIGHT:

2. Mass is measured in _____ and weight is measured in _____.
3. Which is the same, no matter where you are in the universe?
4. Which depends on your location, and can change from place to place and planet to planet?
5. On the earth, a mass of 1 kg weighs about _____.
6. Gravity on the moon is about 1/6 that of the earth. Would it be [easier/harder/just the same] to lift a rock on the moon that was very heavy on the earth? Why?
7. Would it be [easier/harder/just the same] to push a heavy car on the moon compared to pushing it on the earth? Why?

All the questions below are on the earth:

8. How much does a 2 kg object weigh?
9. How much does a 5 kg object weigh?
10. How much does a 12.5 kg object weigh?
11. What is the mass of an object that weighs 30 N?
12. What is the mass of an object that weighs 70 N?
13. What is the mass of an object that weighs 155 N?
14. A rock has a mass of 2.5 kg on the earth. What is its mass in the middle of outer space?
15. A rock weighs 17 N on the earth. How much does it weigh in the middle of outer space?
16. If you travel from planet to planet, your _____ stays the same no matter where you are, but your _____ changes depending on the planet you are on.