

Name: _____
Date: _____

Science, Grade 8

Review of Mass and Weight

Remember that mass is measured in grams and is how much of something there is. Also remember that weight is the force of an object being pulled to the Earth by gravity, and is measured in Newtons (N). On Earth, something with a mass of 100g is pulled by gravity with a force of 1N, and so has a weight of 1N. That also means, with the help of some math calculations, that something with a mass of 1kg has a weight of 10N.

On another planet, mass is always the same. If the force of gravity on another planet is twice the gravity of Earth, then the weight of that object will double.

Answer the questions below, and remember to show your work for mathematical questions.

1. On Earth, how much force is needed to lift something with a mass of 100g?
2. On Earth, how much force is needed to lift something with a mass of 200g?
3. On Earth, how much force is needed to lift something with a mass of 1kg?
4. On Earth, how much force is needed to lift 2kg?
5. On Earth, something has a weight of 1N. What is its mass?
6. On Earth, something has a weight of 10N. What is its mass?
7. On Earth, something has a weight of 20N. What is its mass?