

WORKSHEET

# A MASSIVE TASK

1 Complete the following passage using this word list. Each word is used only once.

***Earth; mass; spring; newtons; gravity; kilograms; volume; weight; force; stronger; electronic; greater; moon; acceleration***

Matter is anything that has mass and . The SI unit for mass is . It is measured using an  balance.  is a force of attraction that exists between all matter. The  the mass of an object, the  the force of gravity it exerts on objects at or near its surface. For example,  is bigger than the  so it has a stronger gravitational field. An object has the same  anywhere in the universe, but its  will change depending on the gravity it is experiencing. Weight is a  measured in . It is equal to the mass of an object in kilograms multiplied by the  due to gravity in metres per second squared,  $W = m \times g$ . Weight can be measured using a  balance.

2 Check the right box to label these characteristics as **mass** or **weight** (or both).

- |   |   |
|---|---|
| <p><b>a</b> <i>Constant no matter where you are.</i></p>        | <p><b>mass</b> <input type="checkbox"/></p> <p><b>weight</b> <input type="checkbox"/></p> |
| <p><b>b</b> <i>Changes when gravity changes.</i></p>            | <p><b>mass</b> <input type="checkbox"/></p> <p><b>weight</b> <input type="checkbox"/></p> |
| <p><b>c</b> <i>Measured in newtons.</i></p>                     | <p><b>mass</b> <input type="checkbox"/></p> <p><b>weight</b> <input type="checkbox"/></p> |
| <p><b>d</b> <i>Measured in kilograms.</i></p>                   | <p><b>mass</b> <input type="checkbox"/></p> <p><b>weight</b> <input type="checkbox"/></p> |
| <p><b>e</b> <i>Depends on the amount of matter present.</i></p> | <p><b>mass</b> <input type="checkbox"/></p> <p><b>weight</b> <input type="checkbox"/></p> |
| <p><b>f</b> <i>Depends on matter and gravity.</i></p>           | <p><b>mass</b> <input type="checkbox"/></p> <p><b>weight</b> <input type="checkbox"/></p> |