

## S2 FORCES NEED TO KNOW SHEET

1. Mass is a measure of the amount of matter in an object.
2. Mass is measured in kilograms (kg).
3. Mass stays the same wherever it is taken.
4. Mass doesn't move unless forced to.
5. Forces are invisible. Sometimes we can see what causes the force or the effect of the force. Examples of forces are: pushing, pulling, squeezing, tearing are all ways
6. For the effects of a force to be seen the forces must be unbalanced.
7. A force is needed to change an objects
  - a. shape,
  - b. direction,
  - c. speed and
  - d. start an object moving.
8. Weight is the force due to gravity on an object.
9. An object with a very large mass, eg the Earth, the moon, pulls other objects eg humans, towards it. This pull is called the force of gravity.
10. *Any mass has a force of gravity but it is usually too small to measure*
11. Adding twice the force to the spring makes the spring stretch by twice as much.
12. We say that force and extension are directly proportional.
13. A spring balance is used to measure forces.
14. The weight of a 100g mass is 1 Newton.
15. The rougher the surface the bigger the force of friction.
16. The heavier the object the bigger the friction force.
17. Give examples where friction is useful
18. Give examples where friction is not useful
19. Give examples of ways to increase friction
20. Give examples of ways to decrease friction
21. Forces can be drawn by using scaled arrows
22. Forces can be added by doing scale diagrams
23. Balanced forces are when two or more forces cancel out to give the same result as if there was no force acting on an object.

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