

# PHYSICS TOPIC 4

## Forces and Space

### Summary Question Sheet

### ANSWERS

Name : **ANSWERS**

Class : \_\_\_\_\_

1. Force is measured in : Newtons
2. A Newton Balance measures force
3. The gravitational field strength on earth is 10N/kg
4. Weight is a Force
5. Mass is measured in Kilograms
6. Weight is the product of gravity x mass (  $W = m \times g$  )
7. Friction is a force
  
8. Friction can be increased by
  - Increasing surface area of contact
  - Increasing roughness of surface
  
9. Friction can be reduced by
  - lubricating surfaces
  - streamlining shape
  - have smooth rounded body shape
  
10. The planets in the solar system beginning with the planet nearest the sun are  
Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, (Pluto)
  
11. Describe how astronauts manoeuvre a spacecraft in space  
Spacecrafts are manouvered by using a series of thrust engines that can apply forces in various directions
  
12. Newtons First law of motion states that  
A body remains at rest or moves with constant velocity unless acted upon by unbalanced force.
  
13. Describe what happens when no forces or balanced forces act on an object  
Object remains at rest or moves with constant speed

14. Newtons third law of motion states  
Every action has an equal but opposite reaction

15. Describe what happens when an astronaut pushes a space craft

Space craft applies an equal in size but opposite in direction force on astronaut

16. The requirements for life are : -

Water

Oxygen

Food

Shelter

Warmth