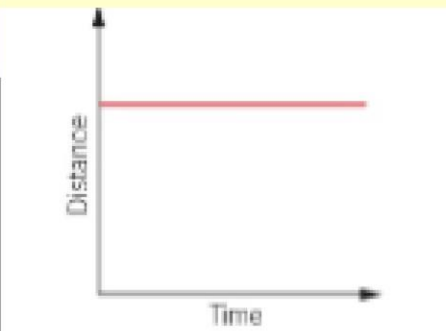


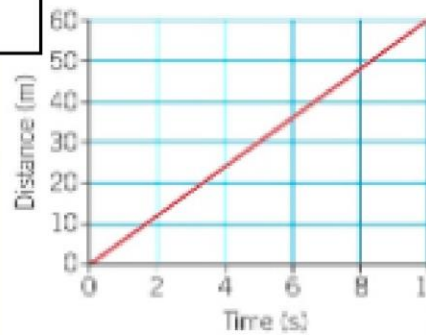
| Section 1 Speed | |
|------------------------------|------------------------------------------------------------------------------------|
| 1 Speed | How far something travels in a particular time. Measured in metres per second. |
| 2 Calculating speed | Speed (m/s) = distance travelled (m) / time taken (s) |
| 3 Instantaneous speed | The speed at any given time. Speed on the speedometer in a car |
| 4 Average speed | The total distance covered divided by the time taken to cover the entire distance. |
| 5 Relative motion | How fast an object moves compared to another object. |

| Section 2 Motion graphs | |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 6 Distance – time graph | A graphical way of showing how something moves. |
| 7 Gradient | The gradient on a distance time graph shows you the speed it was travelling. Horizontal = stationary, steeper = faster. |
| 8 Acceleration | Shown on a distance – time graph as a curved line |
| 9 Finding speed | Can be calculated from a distance – time graph by finding the gradient of the line. |

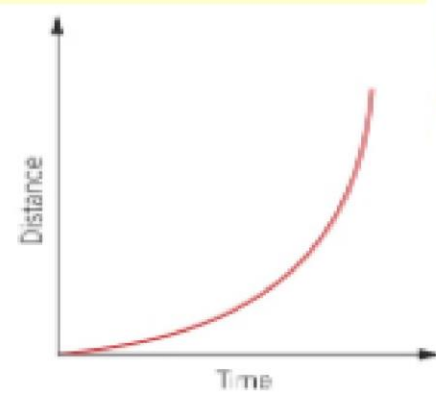
| Section 3 Pressure in gases | |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10 Gas pressure | Gas particles are constantly moving. When they hit the walls of their container they exert a force. This force over the surface area of the container exerts a pressure. |
| 11 Changing volume | If you decrease the volume, you increase the pressure |
| 12 Changing temperature | If you increase the temperature, the particles have more energy and move faster. The pressure will increase |
| 13 Atmospheric pressure | The pressure exerted by the air on your body at all times. |
| 14 Changing atmospheric pressure | Where there is greater air density, there is greater air pressure. High up mountains, there is less air pressure. |



▲ A distance–time graph for a stationary object.



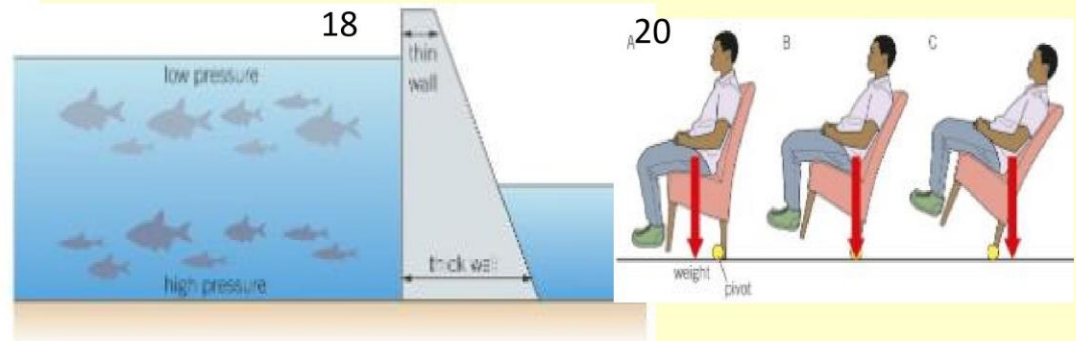
▲ A distance–time graph for a constant speed.



▲ A distance–time graph for an accelerating object.

| Section 4 Pressure in liquids | |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 15 Water pressure | The pressure caused by water particles colliding with an object |
| 16 Increasing water pressure | The further underwater, the greater the water pressure |
| 17 Floating and sinking | Water pressure causes upthrust, pushing up on objects. If upthrust is bigger than the gravitational force, the object will float. |

| Section 5 Pressure on solids | |
|-------------------------------|-----------------------------------------------------------------------------|
| 18 Pressure | The force on an object over an area. Measured in Newtons per metre squared. |
| 19 Increasing pressure | Increase the force or decrease the area it acts over |



| Section 6 Turning forces | |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 20 Turning force | A force which causes an object to rotate around a pivot. Also known as a moment. Measured in newton metres. |
| 21 Law of moments | For a balanced object, the sum of the clockwise moments is equal to the sum of the anticlockwise moments. |
| 22 Centre of gravity | The place the weight of an object acts through. If this is over the pivot, the object will not fall. If it is outside the pivot, the object will fall. |