Pearson Edexcel IGCSE Physics

These questions are in essence the specification turned into questions. It is the bottom line of what you need to know.

Forces and Motion

What is the relationship between average speed, distance moved, and time taken?

Average speed = distance moved / time taken.

What can you investigate about the motion of everyday objects like toy cars or tennis balls?

One can investigate the speed and direction of motion of everyday objects like toy cars or tennis balls.

What is the relationship between acceleration, change in velocity, and time taken?

Acceleration = change in velocity / time taken.

What is a velocity-time graph and how is it plotted?

A velocity-time graph is a graphical representation of the change in velocity of an object over time. It is plotted by plotting time on the x-axis and velocity on the y-axis.

How can you determine acceleration from the gradient of a velocity-time graph?

Acceleration can be determined from the gradient of a velocity-time graph by calculating the slope of the graph between two points. The steeper the slope, the greater the acceleration.

How can you determine the distance traveled from the area between a velocity-time graph and the time axis?

The distance traveled can be determined from the area between the velocity-time graph and the time axis by calculating the area under the graph. The larger the area, the greater the distance traveled.

How can you use the relationship between final speed, initial speed, acceleration, and distance moved?

The relationship between final speed, initial speed, acceleration, and distance moved can be used to calculate any of these variables if the others are known.

The equation used is:

$$v^2 = u^2 + (2 \times a \times s)$$

What are different types of forces?

Different types of forces are gravitational and electrostatic.

How do vector quantities differ from scalar quantities?

Vector quantities have both magnitude and direction, while scalar quantities have only magnitude.

Is force a vector quantity?

Yes, force is a vector quantity.

How do you calculate the resultant force of forces that act along a line?

Resultant force of forces that act along a line can be calculated by adding up the individual forces.