Year 8 Forces, Pressure, Earth and Space 14 Lessons

Stage	Description
Emerging	You can define speed as distance divided by time. You can name some examples of forces. You can say how pressure changes with depth in a fluid. You can state how to calculate pressure as force/area. You can say which poles of a magnet attract and which repel. You can state the appearance of the universe at various scales. You can explain why days last longer in the Summer and are shorter in the Winter.
Developing	You can correctly use the equation linking speed, distance and time. You can state the units of acceleration. You can calculate the resultant force from a free-body diagram. You can calculate the density of a regular solid. You can say how forces change the speed of the object they're acting on. You can draw the magnetic field around a bar magnet. You understand the concept of a light-year.
Secure	You can calculate speed from a distance-time graph. You can calculate the moment of a force. You can calculate the extension of a spring from its spring constant and load. You can predict whether a material will float or sink given its mass and volume. You can predict the direction of an acceleration from forces labelled on a free-body diagram. You can define gravitational field strength and state its units. You can explain how the tilt of the Earth's axis causes the seasons.
Excellence	You can calculate the relative speed of two moving bodies. You can calculate the resultant moment by adding separate moments together. You can explain why the boiling point of a liquid changes with atmospheric pressure. You can explain how compasses work. You can explain why gravitational field strength varies on different planets. You can explain how theories about the solar system have changed over time.