Year 7: ASK Yourself!

Subject: Science
Unit 7.2: Forces and their effects

	Launching 1-2	Developing 3-4	Progressing 5-6	Mastering 7-9
Skills				
	I need to be able to draw a force diagram for a problem involving gravity.	I can partially sketch the forces acting on an object and label size and direction. I can partially compare and contrast gravity with other forces. I can partially analyse and interpret distance time graphs.	I can confidently predict changes in an objects speed when the forces on it change. I can confidently use the formula: Weight(N) = mass (kg) x gravitational field strength (N/kg).	I can expertly explain whether an object in an unfamiliar situation is in equilibrium. I can expertly draw conclusions from data about orbits, based on how gravity varies with mass and distance.
Knowledge				
	I need to know that the higher the speed of an object, the shorter the time taken for a journey.	I partially know how turning forces are used in levers. I partially know how materials behave as they are stretched or squashed.	I confidently know that mass and weight are different but related. I confidently know that mass is a property of an object; weight depends on the mass but also on gravitational field strength.	I understand and can apply how gravity varies for different masses and distances. I understand and can apply that when the resultant force on an object is zero, it is in equilibrium and does not move, or remains at constant speed in a straight line.