Year 7: ASK Yourself!

Subject: Science

Unit 7.8: Explaining contact and non-contact forces

	Launching	Developing	Progressing	Mastering
Skills				
	I need to explain unfamiliar observations where weight changes. I need to describe what happens to the length of a spring when the force on it changes.	I can partially use the idea of pressure changing with depth to explain underwater effects. I can partially deduce how gravity varies for different masses and distances.	I can confidently use the formula: fluid pressure, or stress on a surface = force (N)/area (m^2). I can confidently use the idea of field lines to show how the direction or strength of the field around a magnet varies. I can confidently use the idea of stress to deduce potential damage to one solid object by another.	I can expertly describe the effects of drag and other forces on falling or accelerating objects as they move. I can expertly explain observations where the effects of forces are different because of differences in the area over which they apply.
Knowledge				
	I need to know that different stresses on a solid object can be used to explain observations where objects scratch, sink into or break surfaces.	I partially know that pressure acts in a fluid in all directions. I partially know that it increases with depth due to the increased weight of fluid, and results in an upthrust.	I confidently know that magnetic materials, electromagnets and the Earth create magnetic fields which can be described by drawing field lines to show the strength and direction.	I understand that one effect of a force is to change an object's form, causing it to be stretched or compressed. I understand that in some materials, the change is proportional to the force applied.