## **Forces**

Bronze	\$ilver	Gold	Platinum
I can use diagrams to describe the forces on an object	□ I can calculate the resultant forces on an object	<ul> <li>I can use a graph to describe the relationship between force and</li> </ul>	□ I can recall and use the equation: moment of a force (Nm) = force
I can recall and use the equation: gravity force (N) = mass (kg) x gravitational field strength, g (N/kg) to calculate the weight of an object	l can recall and use the equation: work done (J) = force (N) x distance (m) (along the line of action of the force)	<ul> <li>extension of a spring</li> <li>I can rearrange equations involving forces</li> <li>I can describe all of the forces on objects that are stationary, accelerating, decelerating and moving at constant speed</li> </ul>	(N) <b>x distance</b> (m) (normal to direction of the force)

## Genetics

Bronze	Silver	Gold	Platinum
<ul> <li>I can order the size of DNA, genes,</li> </ul>	□ I can describe the importance of DNA	□ I can describe the differences in	□ I can explain the role of gene banks
chromosomes and	in inheritance	between the terms:	_
define each term	☐ I can describe	variation, population, species,	☐ I can describe what biodiversity is and
□ I can state the	examples of what	competition,	explain how it can
meaning of heredit	individuals within a population would	adaptation	be maintained
<ul> <li>I can describe the structure of DNA a</li> </ul>	compete for	<ul> <li>I can explain how an adaptation aids</li> </ul>	☐ I can describe the process of natural
a double helix	□ I can describe what	an animal's survival	selection fully
□ I can define the	adaptations animals could have in a hot	in an environment	□ I can predict the
term species and	and cold	□ I can select the most	probability of
population	environments	appropriate graph to display data on	inheriting a characteristic
	<ul> <li>I can identify an example of</li> </ul>	variation	
	continuous and		
	discontinuous variation		
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## Space

Bronze	Silver	Gold	Platinum
I can recall and use the equation: gravity force (N) = mass (kg) x gravitational field strength, g (N/kg) to calculate the weight of an object I can describe the	<ul> <li>□ I can describe what the terms day, month and year mean</li> <li>□ I can define the term 'light year'</li> </ul>	□ I can explain how the Earth's tilt leads to different seasons □ I can rearrange the equation: gravity force (N) = mass (kg) x gravitational field strength, g (N/kg)	<ul> <li>Predict how the size of a planet and its distance from a star would affect its characteristics.</li> </ul>
parts of our Solar System and their arrangement		(N/Rg)	