

Year 8 Science Revision List – Autumn Term Science Summative Assessment 2023

	Practical Skills and Safety	Forces	Cells and Reproduction / Keeping Healthy
Key Knowledge	<p>To know:</p> <ul style="list-style-type: none"> ● Typical apparatus used in investigations and how to draw them. ● The meaning of independent, dependent and control variables when investigating how concentration, temperature and surface area affect the rate of a reaction. ● The meaning of categorical and continuous data. ● The terms accurate, precise, reliable, valid, resolution. ● The terms random error and zero error. 	<p>To know:</p> <ul style="list-style-type: none"> ● Forces are measured in Newtons and can be either a push or a pull. ● Forces can be represented by an arrow with size and direction. ● The difference between balanced and unbalanced forces. ● A force is needed to cause an object to change its speed or direction. ● Examples of non-contact forces such as gravitational, magnetic and electrostatic forces. ● What is meant by work done. ● Hooke's law in terms of force being directly proportional to extension in elastic objects. ● The relationship between average speed, distance and time. ● That atmospheric pressure changes with height and that pressure in liquids changes with depth. ● A moment is a turning effect. ● That weight = mass x gravitational field strength ● That the earth's tilt leads to seasons and different day lengths. ● A light year is an astronomical unit of distance. 	<p>To know:</p> <ul style="list-style-type: none"> ● The word equations for aerobic and anaerobic respiration. ● Organelles of animal and plant cells
Key Skills	<p>To be able to:</p> <ul style="list-style-type: none"> ● Identify the variables of a rates investigation. ● Draw a line graph including the labelling and scaling of axes. This includes drawing a line of best fit. ● Explain how you can improve accuracy of an investigation. ● Identify anomalous results and calculate a mean. 	<p>To be able to:</p> <ul style="list-style-type: none"> ● Identify the forces in various systems such as stretching a spring, friction between surfaces, pushing objects and air and water resistance. ● Describe the method and variables during the Hooke's law practical. ● Calculate the speed of an object ● Describe the journey shown by a distance-time graph. ● Calculate the pressure on an object (force/area). ● Calculate the weight of an object on different planets. 	<p>To be able to:</p> <ul style="list-style-type: none"> ● Recall the words equations for aerobic and anaerobic respiration. ● Identify the organelles in animal and plant cells. ● Compare the similarities and differences of the organelles in animal and plant cells.