

CELLS												
Year 7	Working Towards	RAG			Meeting	RAG			Exceeding	RAG		
Practical Skills	Correctly use a microscope to view plant or animal cells				Record accurate drawings of cells viewed using a microscope				Correctly label your cells diagram with the structure and function of each feature.			
Application	Apply your knowledge of cells to label diagrams or models of cells											
Explanations	Explain why some organisms are unicellular but others are multicellular				Explain the differences between plant and animal cells				Explain why some cells need to be specialised			
					Explain how cells are specialised				Explain why plant cells are different to animal cells			
Descriptions	Define a cell and name its components				Describe the cell structure of plant and animal cells				Describe the role of each organs in carrying out the life processes e.g digestion, respiration			
	Describe the roles of different organ systems in the body											
	Describe cellular organisation in the body				Define specialised cells and give examples							
	Identify the position of organs in the body				Describe the function of the main organs in the body							

Student Self-assessment **Final Self Assessment A.R.M**
 Explain your self-assessment decision:

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Interdependence											
Year 7	Working Towards	RAG			Meeting	RAG			Exceeding	RAG	
Practical Skills	Interpret data in tables to recognise patterns in population sizes				Plot a suitable graph to show the changes in population size				Explain patterns in your data using values from the graph or table to support your ideas		
Application	Use food chains to construct a food web				Analyse food webs and describe the consequences of the changes in numbers of organisms				Apply your knowledge of interdependence to suggest what might happen when an unfamiliar species is introduced into a food web		
Explanations	Explain the importance of each organism to other organisms.				Explain how the population size is affected by predators, disease and competition.				Explain how toxic substances can accumulate in human food		
Descriptions	Describe energy transfer in a food chain				Describe the importance of insects to pollinate food crops Describe how a species' population changes as its predator or prey population changes						
	Define key words e.g. ecosystem, environment, producer, prey.										
	Produce a simple food chain										
	Describe factors that can affect the population size										

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Movement												
Year 7	Working Towards	RAG			Meeting	RAG			Exceeding	RAG		
Practical Skills	Measure the force on a model arm using the correct equipment and record all results				Interpret results to discuss factors that affect the force exerted				Suggest advantages and disadvantages of the model used.			
Application					Apply your knowledge of the skeleton to predict the consequences of damage to a joint, bone or muscle							
Explanations	Explain the role of the skeleton				Explain how technology is used to improve human movement				Explain the benefits and risks of technology to improve human movement			
					Explain how antagonistic muscles work to move bones					Explain how muscles and the skeleton work together		
Descriptions	Identify the bones in the body				Describe a ligament, tendon and cartilage							
	Describe a joint				Describe antagonistic muscles							
					Give examples of antagonistic muscles							

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Plant Reproduction												
Year 7	Working Towards	RAG			Meeting	RAG			Exceeding	RAG		
Practical skills	Design a practical to investigate the effect of an independent variable on the dispersal of a seed by the wind				Suggest your own variables for the practical and suggest how to make your results a fair test and reliable.				Interpret your results to draw accurate conclusions and evaluate your practical method.			
Application					Apply knowledge of selective breeding to suggest how plant breeders could use this				Apply your knowledge of seed dispersal to explain why a particular plant structure increases the likelihood of successful seed dispersal			
Explanations	Explain the difference between a fruit and a seed				Explain why seed dispersal is important to the plants Explain how each adaptation ensures the seed will be dispersed				Explain the difference between pollination and fertilisation			
									Explain the similarities and differences between the structure of wind and insect pollinated plants			
Descriptions	Correctly label the male and female reproductive organs in a plant				Describe adaptations of plants to allow seed dispersal by wind, water and animal							
	Define fertilisation and pollination											
	Describe different types of pollination and seed dispersal				Describe the main steps involved when a plant reproduces successfully							
	Describe the function of pollen					Describe selective breeding						

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VARIATION							Evidence					
Year 7	Working Towards	RAG			Meeting	RAG			Exceeding	Evidence		
How Science Works	Draw a bar chart to show the variation of a characteristic.				Draw an accurate bar chart to show the variation of a characteristic.				Carry out an investigation to find the variation of characteristic, recording results in an appropriate table and using them to plot an accurate bar chart.			
Application	Identify whether variation is continuous or discontinuous.				Identify whether a characteristic is inherited, environmental or both.							
Explanations	Explain how variation is caused.				Explain how species are adapted to their environment.				Explain how variation can influence an individual's chance of survival.			
Descriptions	Define variation and gene.				Describe where genes are found in the cell.				Describe the organisation of genetic material in cell.			
	Describe how species are adapted to their environment.				Describe how characteristics are passed on.							

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BREATHING												
Year 8	Working Towards	RAG			Meeting	RAG			Exceeding	RAG		
Practical Skills	Predict the effect of exercise on breathing rate and record all results				Use results to plot an accurate graph to show the effect of exercise on breathing rate				Interpret results to draw accurate conclusions on breathing rate and exercise			
Application					Apply your knowledge of breathing to data on breathing rate e.g. the effect of exercise				Apply your ideas to interpret data and statistics on smoking and cancer			
Explanations	Explain the use of each gas we inhale and exhale				Explain how and where gas exchange occurs and how the alveoli are adapted to function				Explain the effects of exercise on breathing			
	Explain the role of each structure in the respiratory system				Explain the differences in composition of inhaled and exhaled air					Explain the effects of each harmful component in cigarettes		
Descriptions	State the main gases we inhale and exhale				Describe inhalation and exhalation in terms of changes in pressure				Describe the link between smoking and lung cancer			
	Describe the movements of the respiratory system during inhalation and exhalation											
	State the organs in the respiratory system and correctly label a diagram of the respiratory system					Describe some of the health risks associated with smoking and drugs						
	Give examples of drugs											

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DIGESTION												
Year 8	Working Towards	RAG			Meeting	RAG			Exceeding	RAG		
Practical Skills	Collect data on food test and present this in a table				Interpret results from food tests to draw conclusions on which food groups are present				Discuss the limitations of using chemicals to test for different food groups			
	Collect data on energy content in food practical					Present results in an appropriate results table and interpret these to draw conclusions					Suggest improvements to the burning food practical	
Application	Apply your knowledge of food groups and diet to evaluate peoples' diets				Apply BMI to evaluate the diet or lifestyle choices							
Explanations	Explain the role of organs in the digestive system				Explain the importance of different enzymes in digestions Explain why food must be digested				Explain the importance of digestion for the body e.g. glucose for respiration Explain how different organs in the digestive system are adapted Explain the effect of malnutrition			
	Explain the importance of a balanced diet											
Descriptions	Describe the importance of food				Describe what happens to food in each organ in the digestive system Describe the role of enzymes in digestion Describe and calculate BMI				Describe the limitations of using BMI and suggest alternatives.			
	Describe the role of the 7 main food groups and a balanced diet											
	State the organs in the digestive system											

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VARIATION										
Year 8	Working Towards	RAG			Meeting	RAG			Exceeding	Evidence
How Science Works					Use information to describe how the structure of DNA was discovered.				Use information to evaluate the contributions of different scientists to the discovery of the structure of DNA.	
Application	Fill in a Punnett square to show possible allele combinations of offspring.				Draw a Punnett square to show the possible allele combinations of offspring for two given parents.				Draw an accurate Punnett square and calculate the probability of offspring having each characteristic.	
Explanations	Explain why offspring look like their parents.				Explain why offspring are not identical to their parents.					
Descriptions	Define the terms gene and chromosome and describe where they are found.				Define the terms dominant and recessive.				Define the terms homozygous and heterozygous.	
	Describe the shape of DNA.				Describe the structure of DNA and label the parts.					

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