Barnsley Academy – (Year 7 and Subject Biology - Cells) Curriculum
Scheme of Work – 2023-24

Term 1 – Week 1 or Week 4				
	1	2	3	4
Lesson Focus	Using a microscope	Unicellular Organisms	Diffusion	Diffusion practical
Prerequisite Knowledge	KS2 – Basic knowledge of cells	KS2 – Basic knowledge of cells		Diffusion lesson
Core Knowledge	Label the parts of the microscope and identify their functions Describe how to use a microscope, using key terms correctly Perform calculations for magnification	Define the term unicellular and label common features of unicellular organisms Name and describe the functions of some of the structures of unicellular organisms Describe some uses and dangers of unicellular organisms	Describe how substances move in and out of cells by diffusion, giving examples Describe and explain factors that can affect the rate of diffusion Explain the importance of diffusion in living organisms	Investigate diffusion in a practical activity Record accurate results and display this data in the form of a graph
Expert Model /Guided Practice/Agreed Approach (Procedural Knowledge)	Model method of using microscope to view slide Model calculations for magnification	Model comparative sentences for similarities and differences	Model how to work out rate of diffusion + justify	Model practical Model plotting data on graph Model drawing conclusion from graph
Independent Practice	IP1 – label microscope and match up part with function IP2 – follow modelled method to view slides down a microscope IP3 – KPI: label microscope, calculate total magnification, write method; extension- calculate actual size	IP1 – similarities and differences of unicellular IP2 – exam Q, label structures and give a difference IP3 – functions of organelles questions IP4 – uses and dangers of bacteria and fungus	IP1 – gap fill for diffusion IP2 – describe diffusion (use gap fill to help) IP3 – where would diffusion happen fastest IP4 – diffusion EQs	IP1 – carry out practical and record results IP2 – plot results on graph and write conclusion
Assessment (Informal/Formal)	Independent practice tasks – KPI incorporated. Learning checks on WB Students to self- assess all tasks. Teacher to circulate and check for misconceptions.	Independent practice tasks – EQ incorporated. Learning checks on WB Students to self- assess all tasks. Teacher to circulate and check for misconceptions.	Independent practice tasks – EQ incorporated. Learning checks on WB Students to self- assess all tasks. Teacher to circulate and check for misconceptions.	Learning checks on WB Students to self- assess all tasks. Teacher to circulate and check for misconceptions. IP – carry out practical

Resources	(Hyperlink) https://www.youtube.com/watch?v=dxv4M4HHUgs How to make onion slide	-		
Specific SEN(D)/EAL support			Gap fill task IP1	