

TITLE: 7A Cells and Organisation

Unit Overview (Linked to the KS3 Programme of Study)

Students will be taught:

- Cells as the **fundamental unit of living organisms**
- How to **observe, interpret and record cell structure using a light microscope**
- The **functions of organelles** (nucleus, cytoplasm, membrane, mitochondria, chloroplasts)
- Differences between **plant and animal cells**
- The **hierarchical organisation** of multicellular organisms
- The role of **diffusion in cells**

Prior Learning (KS2)

Students have learnt previously about plants. This has involved:

- working scientifically by using magnifying glasses to observe living things closely.
- identifying and describing the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.
- identifying that humans and some other animals have skeletons and muscles for support, protection and movement.
- describing the simple functions of the basic parts of the digestive system in humans.
- identifying and naming the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood

Future Learning (KS4)

At GCSE students will build on their knowledge of cells are the basic unit of all forms of life. They will explore how structural differences between types of cells enables them to perform specific functions within the organism. They will also learn that these differences are controlled by genes in the nucleus. They will build on their knowledge of cell specialisation by learning that for an organism to grow, cells must divide by a process called mitosis producing two new identical cells. If cells are isolated at an early stage of growth before they have become too specialised, they can retain their ability to grow into a range of different types of cells.

Misconceptions

Key misconceptions focus on understanding cells as living units, differences in structure and function, accurate interpretation of scale, and the organisation of biological systems.

1. Nature of Cells

- Cells are not alive
- Cells are simple or empty structures

2. Cell Structure

- All cells have the same parts
- Plant and animal cells are identical

3. Organelle Function

- Mitochondria “make” energy
- Chloroplasts are only for colour

4. Size and Scale

- Cells can be seen with the naked eye
- Magnification makes objects physically bigger

5. Organisation and Specialisation

- Cells, tissues and organs are interchangeable
- Cell structure is not linked to function

Practical Requisitions

[7A Requisitions.docx](#)

Mastery (HPA)

Students explain and justify biological ideas, linking structure and function and applying knowledge to unfamiliar situations.

7A.01 Animal and Plant Cells		HPA Challenge	Skills	EEF Recommendations
Learning Objectives	• State that cells the basic units of organisms • List the main parts of cells • Describe the functions of the main parts of cells • Compare and contrast animal and plant cells • Identify parts of a cell from a diagram	Evaluate which part of the cell is most important for survival and explain your choice using reasons or evidence.	<u>Working Scientifically</u> WS 1.2 (Models) Use and interpret cell diagrams as models	EEF 1 (Preconceptions): Diagnostic questions on “what is a cell?”
Do Now (5 mins)	Purpose: Activate prior thinking + baseline check Example structure (teacher adapts): • What is a living thing? • What are animals/plants made of? • Label anything you already know about a “cell” (even if unsure) Teacher uses responses to gauge starting point	Explain why plant and animal cells are different, linking your answer to what each type of cell needs to do. Evaluate how accurate cell diagrams are compared to what you see under a microscope, including what might be missing and why diagrams are still useful.	WS 1.1 (Development of ideas) Discuss how knowledge of cells developed with microscopes WS 4.1 (Scientific vocabulary) Use correct terms (nucleus, cytoplasm) <u>Maths Skills</u> 1d (Estimation) Estimate relative sizes of plant vs animal cells 2h (Order of magnitude) Compare size of cells vs organisms	EEF 4 (Memory): Retrieval of KS2 knowledge (plants, body systems) EEF 6 (Language): Teach key terms e.g. nucleus, cytoplasm etc...
Hook / Intro (5 mins)	Introduce key idea: “All living things are made of cells – they are the building blocks of life” Suggested strategy: • Zoom-in image/video (organism → tissue → cell) • Analogy: cells = building bricks			
Direct Teaching:	Content:			

Cell Structure (10 – 15 mins)	Introduce animal cell first, then plant cell: <table><tr><th>Structure</th><th>Function (simple Y7 level)</th></tr><tr><td>Nucleus</td><td>Controls the cell</td></tr><tr><td>Cytoplasm</td><td>Where reactions happen</td></tr><tr><td>Cell membrane</td><td>Controls what enters/leaves</td></tr><tr><td>Cell wall (plant)</td><td>Supports the cell</td></tr><tr><td>Chloroplast (plant)</td><td>Photosynthesis</td></tr><tr><td>Vacuole (plant)</td><td>Contains cell sap</td></tr></table> Check for understanding (hinge point): “Which part controls the cell?” “Which structures are only in plant cells?” Mini whiteboards / cold calling	Structure	Function (simple Y7 level)	Nucleus	Controls the cell	Cytoplasm	Where reactions happen	Cell membrane	Controls what enters/leaves	Cell wall (plant)	Supports the cell	Chloroplast (plant)	Photosynthesis	Vacuole (plant)	Contains cell sap	3a (Use symbols) Use “>” and “<” when comparing sizes Example in lesson: “Which is larger: plant or animal cell?” “How many times smaller is a cell than a human?”
Structure	Function (simple Y7 level)															
Nucleus	Controls the cell															
Cytoplasm	Where reactions happen															
Cell membrane	Controls what enters/leaves															
Cell wall (plant)	Supports the cell															
Chloroplast (plant)	Photosynthesis															
Vacuole (plant)	Contains cell sap															
Guided Practice (10 mins)	Task type: Supported identification - Label a simple animal cell diagram together - Model one structure + function clearly Teacher scaffolds (especially for lower ability)															
Main Task (20 mins)	Core task: Pupils: - Label animal and plant cell diagrams - Add functions to each part - Complete a comparison (similarities/differences) Teacher flexibility: Teachers select the task format based on class need and prior assessment - Worksheet - Card sort - Diagram re-draw - Digital activity Success criteria: - Correct labels - Correct functions - At least: 1 similarity 1–2 differences If pupils struggle → provide partially labelled diagrams If secure → extend to explaining why chloroplasts are needed															
Support / Diamond (challenge)	Support: - Word bank - Part-labelled diagrams - Matching task															

	Diamond (challenge): - Explain <i>why</i> plants need chloroplasts - Compare function in context (e.g. sunlight)			
Common misconceptions	- All cells are identical - Chloroplasts in animal cells - Confusion between nucleus and cell			
Assessment (5 mins)	Formative and summary Quick check options: - MCQ hinge question: Which structure is found in plant cells but not animal cells? - Diagram identification - Think-pair-share explanation			
Exit ticket (5 mins)	Purpose: Inform next lesson (and Do Now) Example questions: - Name one cell structure - Give its function - One difference between plant and animal cells Teacher uses this to plan next lesson's Do Now (adaptive link)			
Adaptive teaching	- Do Now based on prior knowledge - Hinge questions shape pacing - Main task adjusted via scaffolding/extension - Exit ticket informs next lesson			
British Values	Tolerance – Pupils consider and refine different ideas about cell structures and their functions, recognising that explanations improve through scientific discussion. Mutual Respect – Pupils listen carefully to others' responses when comparing plant and animal cells, building on ideas and correcting misconceptions respectfully.			

Teacher Notes for MTP adaptations

7A.02 The Microscope		HPA Challenge	Skills	EEF Recommendations
Leaning Objectives	- Identify and describe the function of the main parts of a light microscope - Use a light microscope safely and correctly to observe specimens - Explain the purpose of magnification in enabling the observation of cells - Record observations using appropriate scientific conventions	Explain how the parts of a microscope work together to help you see cells clearly and predict what might happen if one part is not used correctly. Explain why higher magnification is not always better when looking at cells, using your knowledge of image clarity. Analyse how your microscope observations could be inaccurate and suggest one mistake and how you could improve your results.	Working Scientifically WS 2.3 (Use of apparatus) Select and use microscope correctly WS 2.4 (Practical skills + safety) Follow safe procedures WS 1.5 (Risk) Identify hazards (glass slides, focusing) Maths Skills 1a (Decimal form) Record measurements (mm, μm) 1d (Estimation) Estimate size of specimen 2a (Significant figures) Record values appropriately Example: Estimate size of onion cell Record using correct decimal values	EEF 5 (Practical): Purposeful practical (what are we trying to observe?) EEF 2 (Self-regulation): Model how to set up apparatus step-by-step EEF 6 (Language): Teach technical terms (eyepiece, stage)
Do Now (5 mins)	Purpose: Retrieval + link to prior learning (cells) Suggested structure (teacher adapts): - Name two parts of a cell - Which part controls the cell? - What is one difference between plant and animal cells? Diamond / challenge: - Why are cells difficult to see with the naked eye? Teacher uses responses to assess recall and readiness for microscopy			
Hook / Intro (5 mins)	Introduce key idea: “Cells are too small to see with the naked eye — scientists use microscopes to observe them.” Suggested strategy: - Show magnified image of onion/cheek cells - Compare what students <i>think</i> cells look like vs real image - Link back to Lesson 1 diagrams			
Direct Teaching: Cell Structure (10 – 15 mins)	Content: Microscope structure + use Introduce key parts: - Eyepiece lens - Objective lens - Stage - Light source - Focus knobs Explain: - Basic function of each part - Importance of magnification Teacher modelling (EEF 2 – self-regulation) - Demonstrate how to: - Place slide correctly - Adjust focus safely - Change magnification Check for understanding (hinge point): “Which part do you look through?”			

	“What happens when you change objective lens?”			
	Mini whiteboards / cold calling			
Guided Practice (10 mins)	Task type: Supported practical preparation - Pupils label a microscope diagram - Follow step-by-step setup instructions - Teacher models each step Teacher circulates and corrects technique			
Main Task (20 mins)	Core task: Pupils: - Use a microscope to observe a prepared slide (e.g. onion cells) - Adjust focus and magnification correctly - Produce a scientific drawing of what they observe - Label key features (where visible) Teacher flexibility: Teachers select approach based on class need: - Step-by-step instruction cards - Pre-labelled diagrams for support - Demonstration-led or independent setup Success criteria: - Correct use of microscope equipment - Clear, neat scientific drawing - Labels added appropriately - Observations recorded using correct terminology Adaptation prompts: - If pupils struggle → provide pre-labelled diagrams / guided steps - If secure → calculate magnification or estimate size			
Support / Diamond (challenge)	Support: - Pre-labelled microscope diagram - Instruction checklist - Teacher or peer modelling Diamond (challenge): - Explain how magnification works - Estimate size of specimen - Compare image size at different magnifications			
Common misconceptions	- Microscope “zooms” like a camera rather than magnifies using lenses - Higher magnification always gives a clearer image - Specimen changes size physically			
Assessment (5 mins)	Formative and summary Quick check options:			

	- Label microscope parts - MCQ: Which part is used to focus the image? - Practical check: - Can pupils safely focus a slide? Teacher assesses understanding of both knowledge and skill			
Exit ticket (5 mins)	Purpose: Inform next lesson (scientific drawing / cells work) Example questions: - Name one part of a microscope - What does magnification mean? - What is one rule when using a microscope? Used to plan next lesson Do Now			
Adaptive teaching	- Do Now based on prior retrieval - Hinge questions guide pacing - Practical support adjusted in real time - Task scaffolding varies by confidence - Exit ticket informs next lesson			
British Values	Rule of Law – Pupils follow agreed scientific procedures when using a microscope safely and accurately, understanding the importance of rules in practical science. Individual Liberty – Pupils develop independence in using scientific equipment and making their own observations			
Teacher Notes for MTP adaptations				

7A.03 Using the Microscope		HPA CHALLENGE	Skills	EEF Recommendations
Learning Objectives	- Prepare and use a light microscope to observe biological specimens safely and systematically - Produce clear, accurate, and labelled scientific drawings from microscope observations	Explain how to use a microscope correctly to get the clearest image possible	<u>Working Scientifically</u> WS 2.6 (Observations + measurements) Record observations accurately	EEF 5 (Practical): Practical used to support conceptual understanding

	Calculate magnification using images and scale information			
Do Now (5 mins)	Purpose: Retrieval from Lesson 2 + readiness for practical Suggested structure (teacher adapts): - Name one part of a microscope - What does magnification mean? - What is one safety rule when using a microscope? Diamond / challenge: - Why might cells appear different under a microscope compared to diagrams? Teacher uses responses to assess recall and practical readiness	and predict what might happen if you miss out an important step. Evaluate how accurate your scientific drawing is compared to what you saw under the microscope. What could you improve and why? Apply your knowledge of magnification to calculate the size of an object, then explain how you know your answer is correct.	WS 3.1 (Present data) Scientific drawings WS 3.3 (Maths) Magnification calculations WS 3.7 (Evaluate data) Consider accuracy of drawings Maths Skills 3c (Substitute into equations) Magnification = image ÷ actual size 4a (Graph/numeric translation) Convert measurement to labelled diagram 1a (Decimal form) Perform magnification calculations 2a (Significant figures) Round answers correctly Example: Calculate magnification Convert measurement to diagram scale	EEF 3 (Modelling): Compare real image vs cell diagram (model discussion) EEF 7 (Feedback): Improve biological drawings through feedback
Hook / Intro (5 mins)	Introduce key idea: “Scientists observe real cells and record what they actually see—but they must do this accurately.” Suggested strategy: - Show two drawings (one inaccurate, one scientific) - Ask: <i>Which is better and why?</i> - Link to: - Accuracy - Careful observation - Recording methods			
Direct Teaching: Cell Structure (10 – 15 mins)	Content: Microscope use + slide preparation + drawing Teach and model: Preparing an onion epidermis slide: - Peel thin onion layer - Place on slide - Add iodine stain - Lower coverslip carefully Using the microscope: - Start on low magnification - Stage positioned as high as it can go so that it moves <u>away</u> from the lenses when focusing - Adjust focus carefully - Increase magnification if needed Scientific drawing rules: - Clear, single lines (no shading) - Accurate proportions - Straight label lines - Title Magnification (introduced or reinforced):			

	Magnification = image size ÷ actual size Teacher modelling (EEF 2 & 3) • Demonstrate slide preparation step-by-step • Model focusing process • Model a simple scientific drawing Check for understanding (hinge point): • “Why do we use stain?” • “What makes a scientific drawing accurate?” Mini whiteboards / cold calling			
Guided Practice (10 mins)	Task type: Supported practical + skill rehearsal • Pupils: ○ Label a microscope diagram ○ Rehearse slide preparation steps (verbally or physically) ○ Identify errors in a sample scientific drawing Teacher scaffolds technique and checks understanding			
Main Task (20 mins)	Core task: Practical – Onion epidermis slide Pupils: 1. Prepare a microscope slide of onion epidermis 2. Use a microscope safely to observe cells 3. Focus and adjust magnification appropriately 4. Produce a scientific drawing of observed cells 5. Label visible structures (e.g. cell wall, nucleus if visible) Purpose: • Apply microscope skills in a real context • Observe real plant cells • Develop accurate recording of observations Teacher flexibility: Teachers select level of support based on class need: • Demonstration-led vs independent • Step-by-step instruction cards • Pre-prepared slides where needed Success criteria: • Slide prepared correctly and safely • Microscope used systematically (focus + magnification) • Drawing is: ○ Clear and proportionate ○ No shading ○ Accurately labelled			

	- Observations recorded using correct terminology Adaptation prompts: - If pupils struggle → provide pre-prepared slides or scaffolded drawings - If pupils struggle with technique → re-model key steps - If secure → estimate cell size or calculate magnification			
Support / Diamond (challenge)	Support: - Step-by-step practical guide - Pre-labelled microscope diagrams - Drawing checklist - Teacher/peer modelling Diamond (Challenge): - Explain why iodine stain is used - Estimate size of an onion cell - Apply magnification to real observations - Compare real cells with textbook diagrams			
Common misconceptions	- Microscope “zooms” like a camera - Higher magnification always improves clarity - Scientific drawings should be artistic or shaded - Cells look exactly like textbook diagrams			
Assessment (5 mins)	Formative and practical-based Quick check options: - Can pupils: - Prepare a slide correctly? - Use microscope safely? - MCQ: What is the purpose of stain? - Evaluate a scientific drawing Assesses both knowledge and practical skill (WS links)			
Exit ticket (5 mins)	Purpose: Inform next lesson Example questions: - State one step in preparing a slide - Give one rule for scientific drawing - What does magnification tell us? Used to plan next lesson retrieval			
Adaptive teaching	- Do Now based on prior knowledge - Modelling supports procedural understanding - Practical support adjusted in real time - Task scaffolded for confidence levels - Exit ticket informs future teaching			
British Values	Democracy – Pupils share observations and evaluate the accuracy of scientific drawings, discussing differences and justifying ideas. Individual Liberty – Pupils take responsibility for producing their own accurate scientific work and drawing independent conclusions from observations.			

Teacher Notes for MTP adaptations

7A.04 Multicellular Organisms		HPA Challenge	Skills	EEF Recommendations
Learning Objectives	- Describe the levels of organisation in multicellular organisms (cells → tissues → organs → organ systems → organisms) - Explain the difference between tissues, organs, and organ systems with relevant examples - Describe how specialised cells are organised to carry out functions within organisms	Analyse how specialised cells work together in a multicellular organism and explain why this organisation is important for survival. Apply your knowledge of levels of organisation to a new example (e.g. the digestive system) and explain how cells, tissues, and organs work together to perform a function. Evaluate why multicellular organisms need different levels of organisation and explain how this makes them more efficient than single-celled organisms.	Working Scientifically WS 1.2 (Models) Use diagrams to represent organisation WS 3.5 (Interpret data) Interpret diagrams and structures WS 4.1 (Vocabulary) Use hierarchical terms correctly Maths Skills 1c (Ratios) Compare sizes of cells vs tissues 2h (Order of magnitude) Understand scale differences Example: “A tissue is made of thousands of cells – estimate how many fit in an organ”	EEF 3 (Modelling): Use visual models (flow diagrams of organisation) EEF 4 (Memory): Retrieval (revisit cells and organelles) EEF 6 (Language): Reinforce hierarchical vocabulary
Do Now (5 mins)	Purpose: Retrieval from previous lessons Suggested structure (teacher adapts): - Name one part of a cell - What is the function of the nucleus? - What type of cells did you observe last lesson? Diamond (Challenge): - Why do multicellular organisms need many different types of cells? Teacher uses responses to assess readiness			
Hook / Intro (5 mins)	Introduce key idea: “Multicellular organisms need organisation so different parts can work together efficiently.” Suggested strategy: - Show organism → organ → tissue → cell sequence - Ask: <i>What do you notice about how the body is organised?</i>			
Direct Teaching: Cell Structure (10 – 15 mins)	Content: Levels of organisation Cells → Tissues → Organs → Organ systems → Organism Examples: - Muscle cell → tissue → heart → circulatory system → human - Leaf cell → tissue → leaf → shoot system → plant Key definitions: - Tissue = group of similar cells - Organ = different tissues working together - Organ system = organs working together Check for understanding (hinge point): “What is the difference between an organ and a tissue?” “Put these in order: organ, cell, tissue”			
Guided Practice (10 mins)	Task type: Supported sequencing - Match key terms to definitions - Order levels of organisation - Complete scaffolded example			

Main Task (20 mins)	Core task: Pupils: 1. Construct levels of organisation 2. Add examples at each level 3. Explain how specialised cells contribute to function Teacher flexibility: Teachers select format based on class need: • Diagram • Card sort • Written explanation Success criteria: • Correct order • Accurate definitions • Relevant examples • Clear explanation of function Adaptation prompts: • If pupils struggle → provide scaffolded diagrams or word banks • If secure → apply to unfamiliar systems			
Support / Diamond (challenge)	Support: • Word bank • Partially completed diagrams • Matching activities Diamond (Challenge): • Explain how organisation improves efficiency • Apply to a new system (e.g. digestive system) • Compare plant vs animal organisation			
Common misconceptions	• Organs vs organ systems confusion • Tissues and organs are the same • All cells perform the same role			
Assessment (5 mins)	• MCQ: Which level comes after tissue? • Ordering activity • Explain organ vs tissue			
Exit ticket (5 mins)	• Order: cell → organism • Define “organ” • Give an example of an organ system			
Adaptive teaching	• Retrieval informs teaching • Hinge questions guide pacing • Tasks adapted for need • Diamond provides deeper challenge • Exit ticket informs next lesson			
British Values	• Democracy – Pupils contribute ideas about organisation in living systems, discussing and justifying explanations collaboratively. • Mutual Respect – Pupils respect differing levels of understanding when explaining complex ideas such as tissues and organs working together.			

Teacher Notes for MTP adaptations

7A.05 Specialised Cells		HPA Challenge	Skills	EEF Recommendations
Learning Objectives	- Explain how the structure of specialised animal and plant cells is adapted to their function - Describe examples of specialised cells and link their features to their roles - Explain how unicellular organisms carry out all life processes within a single cell	Analyse how the structure of a specialised cell (e.g. sperm cell, nerve cell, or root hair cell) helps it carry out its function. Apply your knowledge of specialised cells to an unfamiliar example. Describe what features it might have and explain how these would help it do its job. Evaluate how unicellular organisms survive with only one cell, compared to multicellular organisms with many specialised cells. Which do you think is more efficient, and why?	Working Scientifically WS 1.2 (Models) Annotated diagrams WS 3.6 (Explain using evidence) Link adaptations to function WS 3.5 (Interpret information) Analyse diagrams Maths Skills 1c (Ratios/fractions) Compare surface area vs volume (qualitative) 5b (Geometry – 2D/3D forms) Visualise shape of specialised cells (e.g. long nerve cell) Example: Compare shapes: “Why does shape increase surface area?”	EEF 3 (Modelling): Annotated diagrams showing structure-function EEF 7 (Feedback): Improve explanations of adaptations EEF 4 (Memory): Retrieval of prior organelle knowledge
Do Now (5 mins)	Purpose: Retrieval from Lesson 4 (organisation) Suggested structure (teacher adapts): - Put in order: cell, tissue, organ - What is a tissue? - Give one example of an organ Diamond (Challenge): - Why might different cells need different structures? Teacher uses responses to assess readiness to move into specialisation			
Hook / Intro (5 mins)	Introduce key idea: “Not all cells are the same—cells are specialised to do specific jobs.” Suggested strategy: - Show images of different specialised cells (e.g. sperm cell, nerve cell, root hair cell) - Ask: <i>What differences do you notice?</i> <i>Why might they look different?</i>			
Direct Teaching: Cell Structure (10 – 15 mins)	Content: Specialised cells and adaptations Introduce key examples: Animal cells: - Sperm cell → tail for movement, many mitochondria - Nerve cell → long length for transmitting signals - Muscle cell → many mitochondria for contraction Plant cells: - Root hair cell → large surface area for absorption - Leaf cell → chloroplasts for photosynthesis Unicellular organisms: - Single-celled organisms carry out all life processes - Example: amoeba or bacteria Key idea: Structure = function Teacher modelling (EEF 3)			

	Model one example fully: Structure → adaptation → function Check for understanding (hinge point): • “Why does a sperm cell have a tail?” • “How is a root hair cell adapted for its role?” Mini whiteboards / questioning			
Guided Practice (10 mins)	Task type: Supported matching and explanation Pupils: • Match specialised cells to functions • Identify adaptations • Complete scaffolded explanation: “This cell is adapted by... which helps it to...”			
Main Task (20 mins)	Core task: Pupils: • Select or are given examples of specialised cells • Describe their structures • Explain how these structures are adapted to their function • (Optional challenge within task) Compare plant vs animal specialised cells Teacher flexibility: Teachers select format based on class need: • Table completion • Card sort • Written explanation • Diagram annotation Success criteria: • Correct identification of specialised cells • Clear description of features • Explanation links structure → function • Use of appropriate scientific vocabulary Adaptation prompts: • If pupils struggle → provide sentence starters or scaffolded tables • If secure → compare multiple cells or apply to unfamiliar examples			
Support / Diamond (challenge)	Support: • Word bank (e.g. mitochondria, surface area)			

	- Sentence starters - Matching activities Diamond (Challenge): - Explain how specialised cells work together in a tissue or organ - Apply knowledge to an unfamiliar cell - Link specialisation to efficiency in multicellular organisms			
Common misconceptions	- All cells have the same structure and function - Adaptations are random rather than purposeful - Unicellular organisms are “simple” and don’t carry out all life processes			
Assessment (5 mins)	Formative and summary Quick check options: - MCQ: Which adaptation helps a sperm cell move? - Explain: How is a root hair cell adapted? - Matching cell → function			
Exit ticket (5 mins)	Purpose: Inform next lesson Example questions: - Name one specialised cell - State one adaptation and its function - What does “specialised” mean? Used to inform future retrieval			
Adaptive teaching	- Do now builds on prior knowledge - Hinge questions guide understanding - Tasks scaffolded depending on need - Diamond provides deeper thinking - Exit ticket informs next lesson			
British Values	Tolerance – Pupils develop and refine explanations about how structure links to function, recognising and improving misconceptions through discussion. Individual Liberty – Pupils apply understanding independently to explain how specialised cells work and make reasoned judgements.			
Teacher Notes for MTP adaptations				