

Learning stations

These are parallel activity options that participants can move between

Purpose:

Emphasise autonomy and agency (UDL engagement)

Encourage exploration and comparison

Model a flexible learning environment

Key features:

Multiple options available at once

Participants choose 1–2

Often more open-ended

Can involve movement (or virtual navigation)

Adapt the input (Representation) KS3

Take dense science text (Y7 State of Matter):

Matter exists in three primary states: solid, liquid, and gas. Solids maintain a fixed volume and shape because their particles are densely packed and vibrate in fixed positions. Liquids have a definite volume but no fixed shape, as particles are close together but can flow past one another. Gases have no fixed shape or volume; their particles are widely spaced and move freely. In the water cycle, liquid water absorbs thermal energy from the sun and undergoes evaporation, transitioning into an invisible gas. As this water vapour rises, it cools and undergoes condensation, reforming into liquid droplets that create clouds

Turn it into:

- A diagram
- Digital story-telling
- Annotated visual
- A graphic organiser
- Physical action

Adapt the input (Representation) KS4

Take dense science text (Kidney function):

During ultrafiltration, blood enters the glomerulus under high pressure. This ultra-high pressure forces small molecules like water, urea, glucose, and mineral ions out of the capillary network and into the nephron tubule, while preventing larger proteins and blood cells from passing. Following this, selective reabsorption occurs as the filtrate travels through the nephron. All glucose is selectively reabsorbed back into the bloodstream via active transport. The exact volume of water and mineral ions reabsorbed depends on the body's needs and is regulated by antidiuretic hormone (ADH), which alters the permeability of the collecting duct to control water balance.

Turn it into:

- A diagram
- Digital story-telling
- Annotated visual
- A graphic organiser
- Physical action

Rethink the output (Expression)

Given Task:

Write a conclusion about the investigation of

- how temperature or pH affects the breakdown of starch by the enzyme amylase
- the relationship between the force applied to a spring and its extension, including the limit of proportionality

Turn it into:

- A 3- to 4-panel comic strip illustrating the experiment process and the final conclusion
- Act as a scientist being interviewed by a peer
- Record audio/video summary and upload

Engagement redesign

Take a 'neutral' topic: (evaporation, evolution, dissolving)

Reframe it as

A 'real-world' problem

Student choice contexts

Curiosity hooks (e.g. 'what if?')

Examples on next slide

Engagement examples

Acids and Alkalis

Real-world problem

A river has become polluted. Can you determine what happened and how to restore it?

Student choice context

Investigate cosmetics, agriculture, environmental science, or food production.

Curiosity hook

What if lemon juice had a pH of 14?

Photosynthesis

Real-world problem

A vertical farming company wants to maximise crop yield while reducing energy costs. Which conditions should they prioritise?

Student choice context

Investigate photosynthesis through food security, climate change, rainforest conservation, or future space travel.

Curiosity hook

What if plants were black instead of green?

Consider: additional question of **‘Why does this matter?’**

Barrier detective

Short pupil profile

(EAL, dyslexia, ADHD, high attainer)

Identify the likely barriers in a 'standard' science lesson at delivering the substantive content stage

Now suggest some UDL adjustments at the design stage

Practical modifications

Look at a 'standard' practical task

Modify for

- Access (language, assistive tools)
 - Participation roles
 - Reduced cognitive load
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- Surface area & reaction rate
 - Microscopy
 - Length of wire affecting resistance