

Unit planning

Overview

Teachers plan units by chunking and sequencing skills and understanding to systematically build student understanding over time.

Unit planning allows teachers to identify the key knowledge, vocabulary and skills that students need to build over the unit.

Chunking and sequencing information are crucial strategies for managing cognitive load and facilitating schema development.

Key considerations:

- Design specific learning intentions and success criteria and ensure multiple opportunities to meet them within learning sequences.
- Make connections between expected prior knowledge and new knowledge to build complex schemas.

- Consider how the unit plan builds on previously learnt ideas.
- Consider student misconceptions as an important part of planning comprehensive units.
- Identify the key vocabulary needed and plan learning sequences to teach this vocabulary.
- Teachers plan how they will check for understanding to know when it is optimal to introduce the next chunk in the sequence.
- Unit planning supports lessons that are dynamic and responsive to student learning needs as part of the teaching and learning cycle.

Planning for classroom application

Knowledge organiser

Teachers use a knowledge organiser to plan and sequence learning. It enables them to select relevant information for focused instruction and to facilitate the review of essential concepts throughout lessons. Chunking and connecting ideas provide teachers with an overview of how different elements of the topic relate to each other. This allows for more coherent lesson sequencing and helps teachers draw connections between various aspects of the subject. It is important that any misconceptions students may have are pre-empted so that teachers can clarify these points.

Early Stage 1 Science

Syllabus outcome: STE-SCI-01 identifies and describes characteristics of living things, properties of materials, and movement

Content: Describe how living things get air, water and energy to survive in their environment

Syllabus outcome

Prior knowledge	Key knowledge	Connected ideas	Misconceptions and responses	Vocabulary
Know the parts of a plant	Describe how living things get water to survive	Roots absorb water from the soil	Soil provides food for plants	Absorb Nutrients Underground

Planning for classroom application

Frayer diagrams

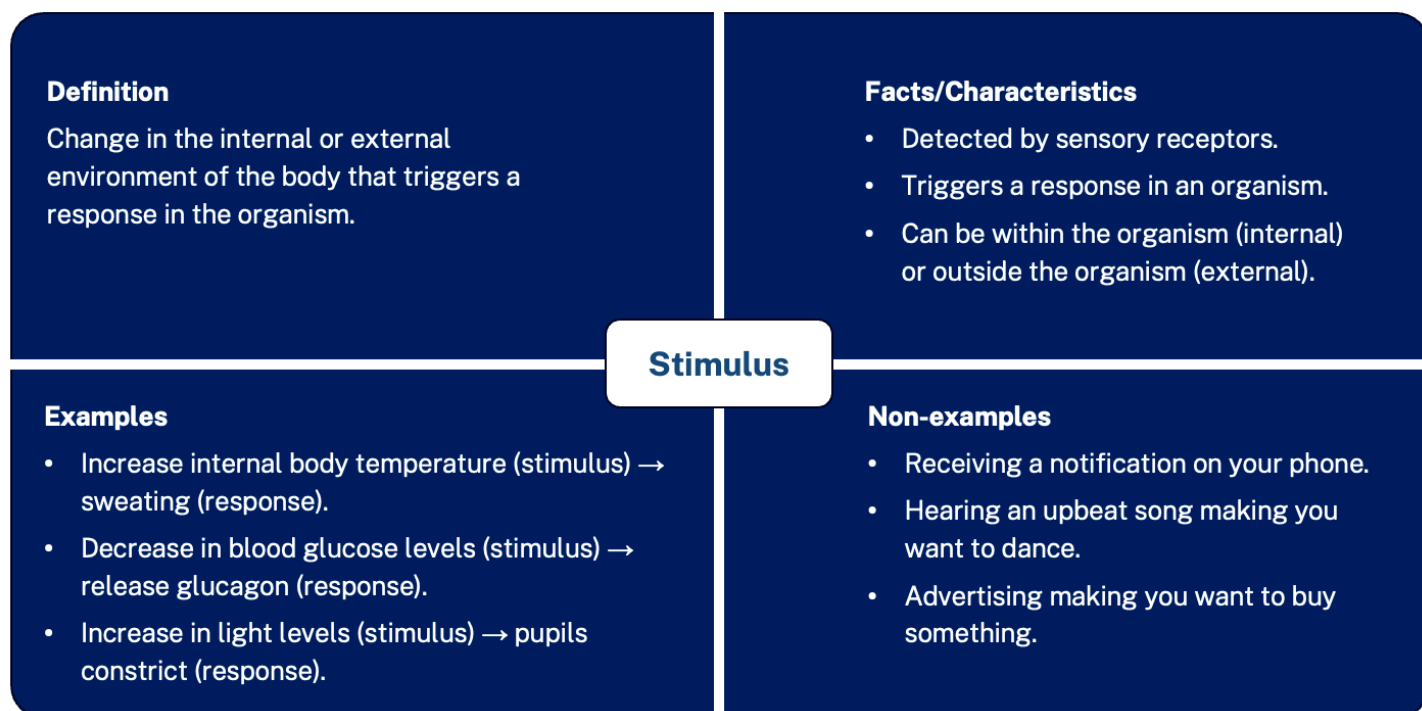
Frayer diagrams can be useful for teaching subject-specific words that could have different meanings in different contexts.

Stage 5 Science

Syllabus outcome: SC5-DIS-01 explains how an understanding of the causes of disease can be used to prevent and manage the spread of disease

Focus area: Disease

For example, when planning a learning sequence, the teacher identifies the scientific use of the word 'stimulus' will need to be taught explicitly. The teacher creates a Frayer diagram for the class to help students distinguish between this scientific use of the word from its everyday use. This pre-empts potential misunderstandings students may have developed.



You will notice in this example, in addition to the definition, there are also:

- facts and characteristics
- examples of how the word is used in the context of the subject
- non-examples that show definitions that don't align with the use of the target word in this context.

Altogether, the information in the Frayer diagram supports students to learn the correct use of the scientific use of the word before misconceptions are formed.

Sequencing tasks and monitoring learning progress before moving on to the next concept ensures information has been transferred to long-term memory, where it is easier to use and connect to new learning.

(AERO 2024)

Chunking and sequencing resources



<https://edu.nsw.link/explicit-teaching-chunking-and-sequencing-learning>

More resources

Explicit teaching – connecting learning

<https://education.nsw.gov.au/teaching-and-learning/curriculum/explicit-teaching/explicit-teaching-strategies/connecting-learning>

Explicit teaching – gradual release of responsibility

<https://education.nsw.gov.au/teaching-and-learning/curriculum/explicit-teaching/explicit-teaching-strategies/gradual-release-of-responsibility>

Multicultural education – planning for teaching

<https://education.nsw.gov.au/teaching-and-learning/multicultural-education/english-as-an-additional-language-or-dialect/teaching-and-learning/planning-for-teaching>

References

AERO (Australian Education Research Organisation) (2024) *Mastery learning*, AERO website, accessed 31 October 2024.

<https://www.edresearch.edu.au/summaries-explainers/explainers/mastery-learning>

Archer AL and Hughes CA (2011) *Explicit instruction: effective and efficient teaching*, Guilford Press.

Fletcher-Wood H (2018) *Responsive teaching*, Routledge.