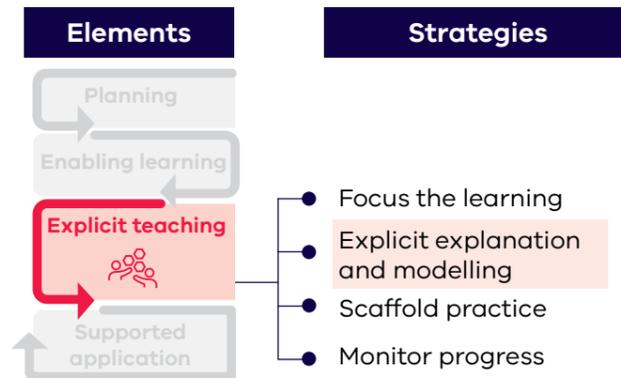# Explicit explanation and modelling

A structured and sequenced approach to explicitly teaching new knowledge optimises student learning (AERO 2023). Introducing new information is most effective when it is broken down into manageable chunks that teachers explicitly explain and model (I do).

This approach prepares students for guided (we do) and independent practice (you do), and can reduce cognitive load and foster deeper understanding.

Elements
- Planning
- Enabling learning
- **Explicit teaching**
- Supported application

Strategies
- Focus the learning
- Explicit explanation and modelling
- Scaffold practice
- Monitor progress

Key links to other guides
- **Collaboratively develop quality curriculum materials**
- **Positive Classroom Management Strategies**

Links to departmental initiatives
- **Diverse Learners Hub**
- **Phonics Plus**
- **Professional Learning Communities**
- **Victorian Lesson Plans**

References and further reading:
arc.educationapps.vic.gov.au/learning/resource/76696

Practice 1 — Fully explain what students need to learn

Explain the material in concise, small steps

Explicit explanations ensure students are taught essential knowledge efficiently and effectively. Limiting unnecessary information helps students focus on the learning material and reduces cognitive load (AERO 2024).
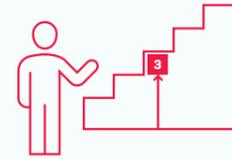
HOW?
- Break new information into manageable chunks and explain each chunk step by step.
- Preview and explain key vocabulary. E.g. in a poetry lesson, you might introduce and explain words like 'rhyme', 'metre' and 'stanza'.
- When explaining key concepts, procedures and strategies, minimise distraction such as busy slides, complex language and unnecessary digressions.
- Explicitly link explanations to students' prior knowledge and learning objectives. E.g. 'A plant is a living thing that uses sunlight. Examples of plants are trees, flowers in our garden and bushes in our school.'

Deliver interactive and engaging explanations

Explicit explanations that are brief and interactive, including frequent opportunities to respond and checks for understanding, can increase student engagement. They also provide the teacher with feedback that makes clear when students are ready to move on to guided practice or require further explicit explanation.
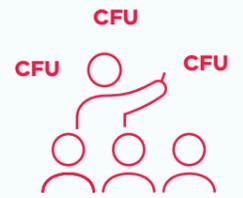
HOW?
- Set the duration and pace of this phase of the lesson to suit the age and stage of students and the complexity of the task.
- Check for understanding by asking frequent questions during explanations and demonstrations. E.g. ask a non-volunteer to identify the verb in a sentence and explain how they know which type of word it is.
- Use predictable student response routines such as hand signals, mini-whiteboards and turn-and-talk. E.g. students respond to examples and non-examples with thumbs up or down.
- Use checks for understanding to determine readiness for guided practice or if additional explanation is required.

Practice 2 — Demonstrate and model what students need to learn

Demonstrate and think aloud

What have I done before in similar problems?

Sharing the thought processes of an expert learner, through teacher modelling, makes implicit processes explicit and helps students develop their metacognitive skills (Quigley et al. 2018).

HOW?
- Guide students through the content with step-by-step demonstrations.
- Narrate your thought processes as you work through tasks or procedures.
- For example, when explaining properties of materials, 'I can use observations to identify the properties of this object. I see that the paper is white, and I can feel that the paper is light and smooth. I also see and feel that the paper can be moved and bent without breaking.'
- Make explicit links to prior learning. E.g. 'Last time I approached this by …'
- Invite active participation through self questioning. E.g. 'What steps do I need to take next to solve this problem?'

Model with worked examples

Worked examples provide learners with the problem-solving approaches that need to be stored in long-term memory (Sweller et al. 2011). They help prevent working memory overload, enabling students to concentrate on fully understanding and learning the process, not just the result.

HOW?
- Begin with a worked example and explain the steps needed to complete a task or solve a problem. E.g in distributive law, $a(b+c)=ab+ac$, so:
  $7 \times 13 = 7 \times (10+3) = 7 \times 10 + 7 \times 3 = 70+21 = 91$
- Introduce new elements, variations or alternative ways to complete the task in subsequent worked examples.
- Extend students by removing steps or providing examples with errors to foster problem solving.
- Gradually reduce the use of examples as students approach mastery.

Use examples and non-examples

Examples help students understand and connect abstract concepts to the real world. Varied examples help identify the defining features of a concept. Non-examples help define the limits of a concept, pre-empting misconceptions.

HOW?
- Design examples that highlight key features and ideas.
- Draw attention to the changing elements of different examples and compare them with constant factors. E.g. marsupials are mammals but raise their offspring in an external pouch.
- Present clear and concrete examples and non-examples, and analyse similarities and differences.
- Design non-examples that prevent or address potential misconceptions. E.g. mushrooms and coral are not plants.