Modelled mathematics

a teaching approach used in small group focus



The teacher:

- presents the learning experience
- models and describes effective strategies, making links to the students' previous experiences
- shares other related skills and understandings that can be brought to the experience
- uses materials and records the mathematics
- allows time for students to think and work independently

The students:

- talk about the demonstration
- model the strategies using materials and/or diagrams

The teacher:

- articulates key mathematical ideas
- supports students to model strategies
- discusses, questions and models how connections are made to form a generalization

The students:

• use their own words and representations to describe theses connections and generalisations

Prompts

Watch me while I ... Do you remember how we ...? Let's try that now ...

Listen while I explain ...

Imagine yourselves ...

Now you try ...

Tell me about ...

When have you used this before?

How is this the same?

How is this different?

Shared mathematics

a teaching approach used in whole class focus small group focus



The teacher:

• introduces the learning experience

The teacher and students:

• identify and practice the known skills and understandings relevant to the experience

The teacher and students:

• highlight and explore other related skills and understandings

The teacher:

- introduces the key mathematical ideas and provides time for individual thought
- leads the discussion and questions students, helping them to make connections

The teacher and students:

- explore the mathematics using materials, oral language and/or written recording
- share and justify their ideas
- make connections between mathematical ideas to create a generalisation

The students:

• articulate their own ideas to describe these connections and generalisations

The teacher and students:

• use materials and written recording, as appropriate to support a discussion to use the generalisation in a new situation

Prompts

Today we are looking at ... What do you know about? Do you remember when we? Why do you think that would work? What do you know about?

Show me ...

Guided mathematics

a teaching approach used in small group focus



- introduces the learning experience
- encourages students to identify relevant known skills and understandings
- provides time for individual thought
- guides students
- scaffolds individual learning

The students:

- talk, think and work their way towards making sense of the mathematical ideas
- engage in conversations with the teacher
- make connections to develop a generalisation

The teacher:

- reinforces the generalisation with the group
- Addresses any issues that may arise

The students:

• question, explain and justify their own views and interpretations

The teacher and students

• Use materials, oral language and/or written recording to support the use of the generalisation in new situations

The teacher

 Acknowledges successful problem solving and appropriate estimation and checking strategies

Prompts

Today you will ...

What mathematics could you use?

Tell me about ...

When have you used something like this before?

How are these the same?

How are they different?