

Lesson Planning Template

The Problem-Solving Context

Key Concepts / Big Ideas

Curriculum Expectations

Brief Description of the Problem / Task

Working on It

<p>During this phase, the teacher can:</p> <ul style="list-style-type: none"> • ask probing questions; • clarify mathematical misconceptions, as needed, by redirecting students through questioning; • answer students' questions (but avoid providing a solution to the problem); • observe and assess; • encourage students to represent their thinking concretely and/or pictorially; • reconvene the whole group if significant questions arise; • encourage students to clarify ideas and to pose questions to other students; • provide a five- or ten-minute warning before bringing them back for the Reflecting and Connecting phase of the lesson. 	<p>During this phase, students:</p> <ul style="list-style-type: none"> • represent their thinking (using numbers, pictures, words, manipulatives, actions, etc.); • participate actively in whole group, small group, or independent settings; • explain their thinking to the teacher and their classmates; • explore and develop strategies and concepts.
<p>Describe the problem or task in which your students will be engaged. What misconceptions or difficulties do you think they might experience? How will they demonstrate their understanding of the concept? How will you gather your assessment data (e.g., checklist, anecdotal records)? What extension activities will you provide?</p>	

Reflecting and Connecting

During this phase, the teacher can:

- bring students back together to share and analyse solutions;
- encourage students to explain a variety of solution strategies;
- ensure that mathematical concepts are drawn out of the problem;
- ask students to defend their procedures and justify their answers;
- clarify misunderstandings;
- relate strategies and solutions to similar types of problems in order to help students generalize concepts;
- summarize the discussion and emphasize key points or concepts.

During this phase, students:

- share their findings;
- use a variety of concrete, pictorial, and numerical representations to demonstrate a problem's solution;
- listen attentively and respectfully to others;
- justify and explain their thinking;
- reflect on their learning;
- demonstrate their learning using manipulatives, diagrams, numbers, words, actions, etc.

Reflections on the Lesson

How did students demonstrate their understanding of the key mathematical concepts presented in this lesson?

How did the three-part lesson structure support student learning?

What will your next steps be to further develop the key concept(s) of this lesson?

How will you incorporate problem solving and the three-part lesson into your classroom program?
