

Lesson Planning Guideline

Teaching involves many decisions, most of which must be made before a lesson begins. These decisions are critical because they drive the quality of learning opportunities for students.

Planning a Problem-Solving Lesson

For learning to occur, teachers must make decisions about the content focus of a lesson, how to engage students in that content, what questions to ask, how to guide discussion to both encourage participation and advance particular mathematical ideas, and what tools or resources will be needed. The lesson planning guideline below is a tool that can bring focus to the planning process and help document the learning experience.

Lesson Title:

Length of Lesson:

Math Goal:

Identify the mathematics that is most important in this lesson.

State or Common Core Content Standard(s) Correlation:

List the Common Core Content Standard that this lesson addresses.

Optional:

Prioritized Common Core Mathematical Practice Standard(s):

Identify the 1 or 2 mathematical practices that will be the priority in this lesson.

Supporting Common Core Mathematical Practice Standards:

Identify the mathematical practices that support the priority practice.

Language Goal:

Identify what students are expected to communicate about their learning and how they will communicate (i.e., orally, using pictures and diagrams, in writing).

Academic Vocabulary:

Include both mathematical vocabulary and everyday vocabulary terms that are key to this lesson.

Materials:

List any handouts, charts, manipulatives, or tools needed for the lesson.

Sentence Frames:

Include sentence frames that will help students participate fully in mathematics discussions using academic language in grammatically correct and complete sentences.

Anticipating Confusion:

This section of the lesson plan is a list of particular aspects of the mathematical content that may be potentially confusing or misconstrued by students. This list helps you make sure that students think carefully about these ideas during the lesson.

Questions to Be Asked:

Generate questions you will use to engage students in talking about what they understand or that will reveal misconceptions. These questions should require students to analyze procedures, connect skills to underlying conceptual ideas, generalize patterns and relationships, and/or link new understanding to previous learning.

The following questions may be helpful in planning:

- *What questions can I ask to encourage student conversation, thinking, and learning?*
- *What questions can I ask to focus their thinking if they become frustrated?*
- *What questions can I ask to challenge students if the initial question is “answered”?*

Lesson Implementation**Introduction:**

In this section, describe how you will introduce the lesson so that students are engaged and understand what they are to investigate, explore, or solve. You may also want to describe expectations you have for students in regard to recording their results.



The following questions can help in preparing for the introduction:

- *How can I engage students' curiosity about the lesson?*
- *What do the students need to know to understand the context and challenge of the problem?*
- *How do I keep from giving away too much of the problem situation?*
- *How should students record and report their work?*

Exploration:

Outline the sequence and content of the activities used to help students make sense of the mathematics. In addition to describing what students are doing, detail whether they are to work alone, with a partner, or a small group.

Because students will progress through this part of the lesson at differing paces, note questions you might ask of struggling students and an extension you can give to students who finish more quickly.

The following questions can help you prepare for the exploration stage of the lesson:

- *How will I organize students to explore this problem?*
- *What materials will students need?*
- *What different strategies can I anticipate they might use?*

Summarization:

Determine how students will report the findings of their investigations and connect those to the big mathematical ideas addressed in the lesson. The following questions can help in preparing for the summary stage of the lesson:

- *How can I help students make sense of and appreciate the variety of methods that may be used?*
- *How can I orchestrate the discussion so that students summarize their thinking about the task?*
- *What questions can guide the discussion?*
- *What concepts or strategies need to be made public?*
- *What generalizations and connections need to be made public?*

Lesson Planning Template

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State or Common Core Content Standard(s) Correlation: _____

Optional:

Prioritized Common Core Mathematical Practice Standard(s):

Supporting Common Core Mathematical Practice Standards:

Language Goal: _____

Lesson Plan: _____

Academic Vocabulary: _____

Materials: _____

Sentence Frames: _____

Anticipating Confusion: _____

Questions To Be Asked: _____

Lesson Plan: _____

Lesson Implementation

Introduction: _____

Exploration: _____

Summary: _____
