



# Grade 7

**Problem-Solving Model  
Graphic Organizer**

## **Acknowledgment**

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## **Notice**

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# Understanding the Problem Solving Model



## Notice | Wonder

Understand the situation by asking these questions.

- What do I know?
- What do I need to determine?
- What important information is given that I will need to determine a solution?
- What information is given that I do NOT need?
- Is there enough information given to solve the problem?



## Organize | Mathematize

Devise a plan for your mathematical approach. Ask yourself these questions.

- What is a similar problem to this that I have solved before?
- What strategies may help to solve this problem using the given information?
- How can I represent this problem using a picture, diagram, symbols, graph or some other visual representation?

Which representations make sense for this problem?



## Predict | Analyze

Carry out your plan to determine a solution. Then, ask yourself the following questions.

- Did I show my math work using representations?
- Did I explain my mathematical solution in terms of the problem situation, when applicable?
- Did I describe how I arrived at my solution?
- Did I communicate my strategy and solution clearly using precise mathematical language as necessary?
- Can I make any predictions based on my work?



## Test | Interpret

Look back at your work and ask these questions.

- Does the solution answer the original question/problem?
- Does the reasoning and the solution make sense?
- How could I have used a different strategy to solve this problem?  
Would it have changed the outcome?



## Report

As you share your mathematical reasoning with others, ask these questions.

- Did I share my solution with others?
- Do others understand the mathematics I communicated?

# The Problem-Solving Model Graphic Organizer



NOTICE

**Understand the Problem**



ORGANIZE

**Devise a Plan**



PREDICT

**Carry Out the Plan**



INTERPRET

**Look Back**



REPORT

**Report**

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