



**Secondary
Mathematics**

EDITION 1

Grade 8

**Problem-Solving Model
Graphic Organizer**

Acknowledgment

Thank you to all the Texas educators and stakeholders who supported the review process and provided feedback. These materials are the result of the work of numerous individuals, and we are deeply grateful for their contributions.

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?

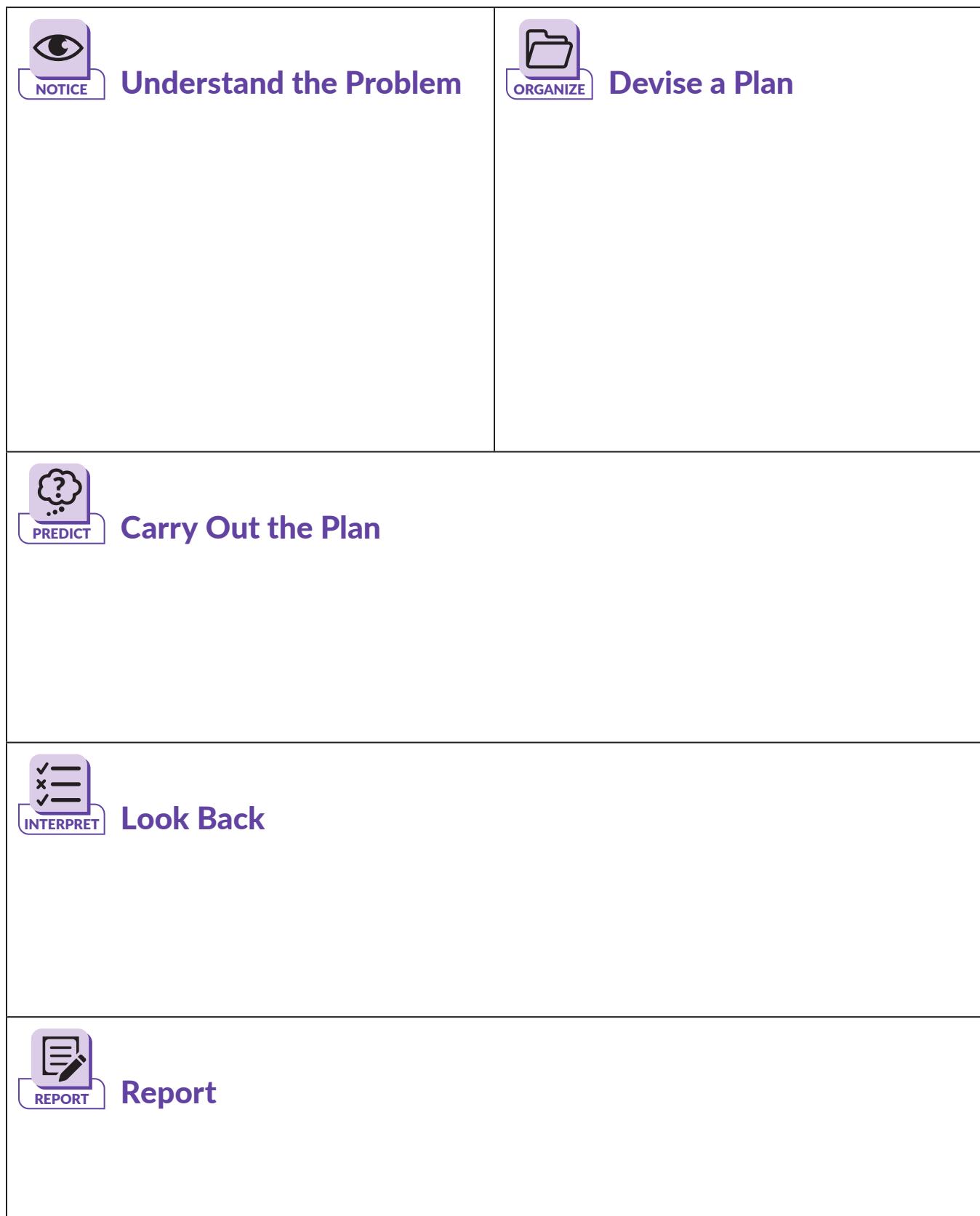


Report

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



ISBN: 198-9-69120-925-8

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Printed in the USA

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