



Grade 7

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

These learning resources have been built for Texas students, aligned to the Texas Essential Knowledge and Skills, and are made available pursuant to Chapter 31, Subchapter B-1 of the Texas Education Code.

If you have further product questions or to report an error, please email openededucationresources@tea.texas.gov.

Understanding the Problem Solving Model



NOTICE

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

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

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?



INTERPRET

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

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	

ISBN: 197-8-92207-748-7

© 2024 Texas Education Agency. Portions of this work are adapted,
with permission, from the originals created by and copyright
© 2021 Carnegie Learning, Inc.

This work is licensed under a Creative Commons Attribution-Non-Commercial-
4.0 International License.

You are free:

to Share—to copy, distribute, and transmit the work

to Remix—to adapt the work

Under the following conditions:

Attribution—You must attribute any adaptations of the work in the following manner:

This work is based on original works of the Texas Education Agency and
Carnegie Learning, Inc. This work is made available under a Creative
Commons Attribution-Non-Commercial-4.0 International License. This does
not in any way imply endorsement by those authors of this work.

NonCommercial—You may not use this work for commercial purposes.

With the understanding that:

For any reuse or distribution, you must make clear to others the license terms of this
work. The best way to do this is with a link to this web page:

<https://creativecommons.org/licenses/by-nc/4.0/>

Trademarks and trade names are shown in this book strictly for illustrative
and educational purposes and are the property of their respective owners.
References herein should not be regarded as affecting the validity of said
trademarks and trade names.

Printed in the USA

Images

www.pixabay.com