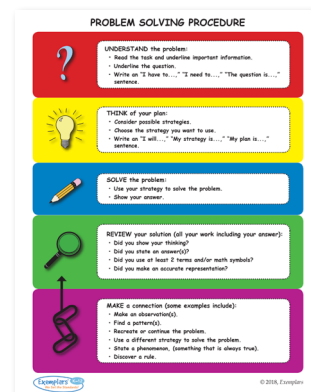


Exemplars Lesson Resources

1) [Problem Solving Procedure](#)

Students can use our Problem Solving Procedure throughout the year to help them get started when solving a problem-solving task. Students can also use the Problem Solving Procedure when they believe they have completed their solution to self assess their solution.



2) [Interactive Digital Problem Solving Procedure](#)

Clicking the active hyperlink above will prompt you to make your own copy of the Google Form of the Problem Solving Procedure linked here. From there, you may choose to have students respond repeatedly on the same form or make a copy for each Exemplars task. This is the perfect tool for practicing self-assessment when a student feels they have completed their Exemplars task.

- This short video [walks students through this procedure](#) (and this version is specific [for Kindergarten](#))

3) [Interactive Jigsaw Rubric](#)

Clicking the active hyperlink above will prompt you to make your own copy of the Google Form linked here. From there, you may choose to have students respond repeatedly on the same form or make a copy for each Exemplars task.

- [Student Rubric PDF](#)
- A short video for students on [What a Strong Solution Should Look Like](#) (and a version specifically [for Kindergarten](#)).

Exemplars Jigsaw Student Rubric

Level	Problem Solving	Reasoning and Proof	Communication	Connections	Representation
Novice Makes an effort to understand the problem.	Did not solve anything about the problem or the math.	Did not use any language or math symbols.	Did not use any language or math symbols.	Did not use any language or math symbols.	Did not use any language or math symbols.
Apprentice Only understood part of the problem. My strategy works for part of the problem.	Some of my math thinking is correct.	Used some language or math symbols.	Used some language or math symbols.	Used some language or math symbols.	Used some language or math symbols.
Practitioner Excellent! Clear. Strong understanding. Makes the connection.	All of my math thinking is correct.	Used language or math symbols throughout my work.	Used language or math symbols throughout my work.	Used language or math symbols throughout my work.	Used language or math symbols throughout my work.
Expert This, wow! Excellent! Exceptional understanding!	Used a strategy to solve the problem. My strategy works for the whole problem. I can explain my strategy to someone else.	Used language or math symbols throughout my work. I can explain my strategy to someone else.	Used language or math symbols throughout my work. I can explain my strategy to someone else.	Used language or math symbols throughout my work. I can explain my strategy to someone else.	Used language or math symbols throughout my work. I can explain my strategy to someone else.

4) [Exemplars K-5 Rubric](#) and [Exemplars 6-12 Rubric](#)

The Exemplars Rubric criteria remain consistent throughout grades Kindergarten to 12. Using the Exemplars Rubric, in collaboration with the problem-solving tasks, elicits the NCTM Process Standards of:

- Problem Solving
- Reasoning and Proof
- Communication
- Connections
- Representations

Utilizing the Exemplars rubric moves our students from finding answers to writing solutions. This deeper dive into their own thinking helps to solidify the students' learning. At the K-5 level, this is a teacher-facing document.

Exemplars K-5 Rubric

Standards-Based Assessment + Instruction

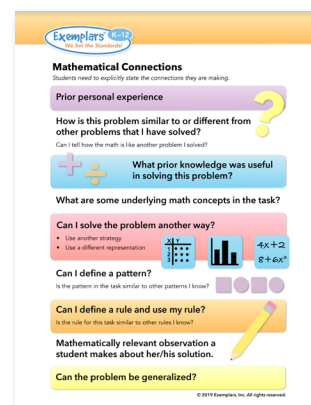
Practitioner	Problem Solving	Reasoning and Proof	Communication	Connections	Representation
Novice An effort to solve the problem. An effort to understand the problem. An effort to use the math.	Did not solve anything about the problem or the math.	Did not use any language or math symbols.	Did not use any language or math symbols.	Did not use any language or math symbols.	Did not use any language or math symbols.
Apprentice Only understood part of the problem. My strategy works for part of the problem.	Some of my math thinking is correct.	Used some language or math symbols.	Used some language or math symbols.	Used some language or math symbols.	Used some language or math symbols.
Practitioner Excellent! Clear. Strong understanding. Makes the connection.	All of my math thinking is correct.	Used language or math symbols throughout my work.	Used language or math symbols throughout my work.	Used language or math symbols throughout my work.	Used language or math symbols throughout my work.
Expert This, wow! Excellent! Exceptional understanding!	Used a strategy to solve the problem. My strategy works for the whole problem. I can explain my strategy to someone else.	Used language or math symbols throughout my work. I can explain my strategy to someone else.	Used language or math symbols throughout my work. I can explain my strategy to someone else.	Used language or math symbols throughout my work. I can explain my strategy to someone else.	Used language or math symbols throughout my work. I can explain my strategy to someone else.

Exemplars Lesson Resources (continued)

5) Making Connections

Teachers and students often ask what making mathematical connections looks like. The document attached helps students recognize that mathematics is a web of connections between what they have learned in the past, their prior knowledge, different possible ways to solve the same problem, and how students can find patterns, rules and generalizations.

- [This K-5 blog series](#) explores the importance of making math connections and offers teaching approaches to promote them in your student thinking.



6) Mathematical Representations K-5 and 6-8

What are the grade-level appropriate mathematical representations? Exemplars has prepared a list of what representations you should be working to develop with your students.

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
• Manipulative	• Manipulative	• Manipulative	• Manipulative	• Manipulative	• Manipulative
• Model	• Model	• Model	• Model	• Model	• Model
• Ten Frame	• Ten Frame	• Ten Frame	• Ten Frame	• Ten Frame	• Ten Frame
• Diagram	• Diagram	• Diagram	• Diagram	• Diagram	• Diagram
• Number Line	• Number Line	• Number Line	• Number Line	• Number Line	• Number Line
• Tally Chart	• Tally Chart	• Tally Chart	• Tally Chart	• Tally Chart	• Tally Chart
• Chart	• Chart	• Chart	• Chart	• Chart	• Chart
• Table	• Table	• Table	• Table	• Table	• Table
• Line Plot	• Line Plot	• Line Plot	• Line Plot	• Line Plot	• Line Plot
• Array	• Array	• Array	• Array	• Array	• Array
• Picture Graph	• Picture Graph	• Picture Graph	• Picture Graph	• Picture Graph	• Picture Graph
• Bar Graph	• Bar Graph	• Bar Graph	• Bar Graph	• Bar Graph	• Bar Graph
• Area/Visual Model	• Area/Visual Model	• Area/Visual Model	• Area/Visual Model	• Area/Visual Model	• Area/Visual Model
• Set Model	• Set Model	• Set Model	• Set Model	• Set Model	• Set Model
• Linear Model	• Linear Model	• Linear Model	• Linear Model	• Linear Model	• Linear Model
• Graph with Coordinates					

7) Sample Lesson Structures

- [Exemplars as Problem of the Week](#) (remote or in-person)
- [Remote Learning Lesson](#)

8) Netiquette Documents

- [Breakout Room Roles](#)
- [Breakout Room Agreements and Talk Moves](#)