# Exemplars: A Perfect Complement for the TEKS Mathematical Process Standards

*Exemplars* authentic performance materials promote critical thinking and reasoning and are an effective resource in meeting the **Texas Essential Knowledge and Skills for Mathematics** (TEKS).

| **The TEKS Mathematical Process Standards state that students are expected to:** | ***Exemplars* rubric criteria from the "Practitioner Level" supports TEKS by requiring students to do the following in order to meet the standard:** |
|---|---|
| **(A) apply mathematics to problems arising in everyday life, society, and the workplace;** | **Problem Solving**<br>• Evidence of solidifying prior knowledge and applying it to the problem-solving situation is present.<br>• There is a correct solution.<br>**Reasoning and Proof**<br>• A systematic approach is present.<br>**Representation**<br>• An appropriate and accurate mathematical representation is constructed and refined to solve problems or portray solutions. |
| **(B) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;** | **Problem Solving**<br>• A correct strategy is chosen based on the mathematical situation in the task.<br>• Planning or monitoring of strategy is evident.<br>• There is a correct solution.<br>**Reasoning and Proof**<br>• Justification of correct reasoning is present.<br>**Communication**<br>• Communication of an approach is evident through a methodical, organized, coherent, sequenced and labeled response. |
| **(C) select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;** | **Problem Solving**<br>• A correct strategy is chosen based on the mathematical situation in the task.<br>• Planning or monitoring of strategy is evident.<br>• Evidence of solidifying prior knowledge and applying it to the problem-solving situation is present. |

*(over)*

| The TEKS Mathematical Process Standards state that students are expected to: | *Exemplars* rubric criteria from the "Practitioner Level" supports TEKS by requiring students to do the following in order to meet the standard: |
|---|---|
| **(D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;** | **Reasoning and Proof**<br>• Arguments are constructed with adequate mathematical basis.<br><br>**Communication**<br>• Communication of an approach is evident through a methodical, organized, coherent, sequenced and labeled response.<br><br>• Formal math language is used to share and clarify ideas.<br><br>**Representation**<br>• An appropriate and accurate mathematical representation is constructed and refined to solve problems or portray solutions. |
| **(E) create and use representations to organize, record, and communicate mathematical ideas;** | **Representation**<br>• An appropriate and accurate mathematical representation is constructed and refined to solve problems or portray solutions. |
| **(F) analyze mathematical relationships to connect and communicate mathematical ideas;** | **Connections**<br>• A mathematical connection is made. Proper contexts are identified that link both the mathematics and the situation in the task.<br><br>Some examples may include one or more of the following:<br>o clarification of the mathematical or situational context of the task<br><br>o exploration of mathematical phenomenon in the context of the broader topic in which the task is situated<br><br>o noting patterns, structures and regularities |
| **(G) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication;** | **Reasoning and Proof**<br>• Arguments are constructed with adequate mathematical basis.<br><br>**Communication**<br>• Formal math language is used to share and clarify ideas. |

Contact us for more information at
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