**APPLICATION & PROBLEM SOLVING**

Learners use the concepts and skills that they acquire to:

**Solve** real-world and mathematical problems with the use of models and explanations.

**Solve and analyze** for deep/rich contextualized problem solving and application of the concepts to new or unique situations.

**Apply towards** Problem-based or Project-based Learning where students explore real-world problems and challenges for possible solutions.

**Work** individually and collaboratively to explain and justify their thinking.

**Learners use** manipulatives, software, and technology to investigate and increase understanding of math concepts.

**Learners understand** concepts through models, simulations and relevant real-world examples.

**Learners model** mathematics through representations such as: drawing pictures, graphics, tables, and symbols.

**Learners are given** purposeful practice to strengthen fluency skills.

**Learners engage** in explanatory writing to justify their thinking.

**Learners become** fluent by applying strategies and procedures efficiently and accurately.

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**STANDARDS for MATHEMATICAL PRACTICE**

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics and apply to solving problems using graphs, drawings, tables, symbols, etc.
5. Use appropriate math tools strategically (e.g. manipulatives, estimation, calculators, rulers, technology, etc.).
6. Attend to precision (e.g. clear communication, accuracy, measurement, calculations).
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning and work towards appropriate generalizations.

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**MATHEMATICS FOUNDATIONAL SKILLS**

**K-12 BALANCED MATHEMATICS INSTRUCTION**

The D51 Teaching and Learning Standards for Mathematics focus on the acquisition of math skills through conceptual instructional strategies. This results in an understanding of math concepts and skills to apply towards critical thinking and problem solving.