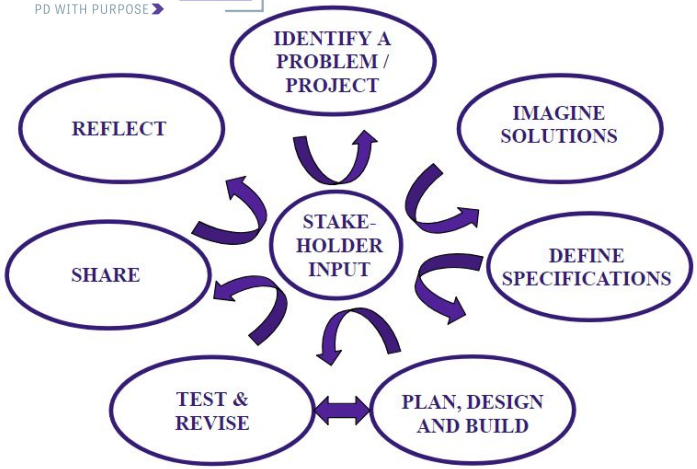
CANYON PROFESSIONAL DEVELOPMENT
PD WITH PURPOSE



ELA Anchor Standards

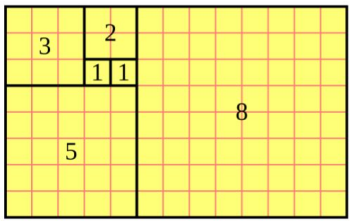
Reading
- Key Ideas and Details
- Craft and Structure
- Integration of Knowledge and Ideas
- Range of Reading and Level of Text Complexity

Speaking
- Comprehension and Collaboration
- Presentation of Knowledge and Ideas

Writing
- Production and Distribution of Writing
- Text Types and Purposes
- Range of Writing
- Research to Build and Present Knowledge

Language
- Knowledge of Language
- Conventions of Standard English
- Vocabulary Acquisition and Use

Mathematical Practices



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.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Social Science Skills & Practices

- Understanding processes of change and continuity over time
- Identify, compare, and evaluate multiple perspectives
- Use evidence to develop claims and answer questions and communicate their conclusions
- Analyze relationships among causes and effects

What You Should See Students "Doing" "Showing" "Knowing" and "Using" in Science?

A Framework/Big Ides for K-12 Science Instruction's 3 Dimensions and AzSS Using Science

DO — Dimension 1: The Science and Engineering Practices

1. Asking questions and defining problems (p. 54)*
2. Developing and using models (p. 56)*
3. Planning and carrying out investigations (p. 59)*
4. Analyzing and interpreting data (p. 61)*
5. Using mathematics and computational thinking (p. 64)*
6. Constructing explanations and designing solutions (p. 67)*
7. Engaging in argument from evidence (p. 71)*
8. Obtaining, evaluating, and communicating information (p. 74)*

SHOW — Dimension 2: The Crosscutting Concepts

1. Patterns (p. 85)*
2. Cause and effect (p. 87)*
3. Scale, proportion, and quantity (p. 89)*
4. Systems and system models (p. 91)*
5. Energy and matter (p. 94)*
6. Structure and function (p. 96)*
7. Stability and change (p. 98)*

KNOW — Dimension 3: The Core Ideas / AzSS P, E and L (Big Ideas)

P: Physical Science (p. 105)*

P1: All matter in the Universe is made of very small particles. **(p. 20)****
P2: Objects can affect other objects at a distance. **(p. 21)****
P3: Changing the movement of an object requires a net force to be acting on it. **(p. 22)****
P4: The total amount of energy in a closed system is always the same but can be transferred from one energy store to another during an event. **(p. 23)****

E: Earth and Space Science (p. 171)*

E1: The composition of the Earth and its atmosphere and the natural and human processes occurring within them shape the Earth's surface and its climate. **(p. 24)****
E2: The Earth and our solar system are a very small part of one of many galaxies within the Universe. **(p. 25)****

L: Life Science (p. 142)*

L1: Organisms are organized on a cellular basis and have a finite life span. **(p. 26)****
L2: Organisms require a supply of energy and materials for which they often depend on, or compete with, other organisms. **(p. 27)****
L3: Genetic information is passed down from one generation of organisms to another. **(p. 28)****
L4: The unity and diversity of organisms, living and extinct, is the result of evolution. **(p. 29)****

USING — AzSS: Using Science (Big Ideas)

U1: Scientists explain phenomena using evidence obtained from observations and or scientific investigations. Evidence may lead to developing models and or theories to make sense of phenomena. As new evidence is discovered, models and theories can be revised. **(p. 30 & 31)****

U2: The knowledge produced by science is used in engineering and technologies to solve problems and/or create products. **(p. 32)****

U3: Applications of science often have ethical, social, economic, and/or political implications. **(p. 23)****

***A Framework for K-12 Science Education** ****Working with Big Ideas of Science Education**

Updated; 1/15/19

Technology Standard Strands

1. Creativity and Innovation
2. Communication and Collaboration
3. Research and Information Literacy
4. Critical Thinking, Problem Solving, and Decision Making
5. Digital Citizenship
6. Technology Operations and Concepts