Developing Big Ideas/Enduring Understandings

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Big Ideas, also called, Enduring Understandings have enduring value beyond a single lesson, a unit of study, or a grade in school. They are stated in such a way that they identify why concepts and skills are important learning. Many state content standards often use phrases such as, “understands purposes for reading,” or “applies reading strategies,” or “uses tools to calculate and estimate.” Written in this way, these are NOT statements, nor do they provide *the reason* (importance) for learning the concepts or skills.

**Now, consider this mathematics Big Idea example written as a statement:** “Transformations and symmetry are used to analyze real-world situations (e.g., art, nature, construction, and scientific exploration).”

This statement identifies why learning about transformations and symmetry is important mathematics…one can use this knowledge to analyze real-world situations in art, nature, etc.

When Big Ideas/Enduring Understandings are written as broader statements, they can be turned into “essential questions” that frame learning for units of study or lesson plans. One lesson will not be sufficient in addressing any one big idea; rather, a series of lessons will build upon each other to build deeper understating and sustain inquiry and investigation.

**Can you create an essential question for the above symmetry big idea?** (There are many possible ones!!)

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| **Big Idea** | **Some Essential Questions** |
| Transformations and symmetry are used to analyze real-world situations (e.g., art, nature, construction, and scientific exploration). | 1. What is symmetry in nature? |
| 2.  |
| 3.  |

**Big Ideas/Enduring Understandings have *enduring value* because they:**

* ***Identify core concepts, principles, theories, & processes***
* ***Serve to organize important facts, skills, or actions***
* ***Will transfer to other contexts***
* ***Require “uncoverage” – what are the abstract/complex ideas that require genuine insight?***

**There is not one correct “set” of big ideas**; however, statements for various content areas will be somewhat similar in terms of essential content and rationale. General (broad) examples for reading, writing, and mathematics are included on the following pages. You may want to make statements more focused or specific, BUT be sure they still meet the above criteria!**Sample *General* Enduring Understandings for Reading**

# Big Idea: Forming a Foundation for Reading

*Students will understand that:*

* Knowing how to apply phonetic principles, context clues, structural analysis, and spelling patterns can help them figure out unfamiliar words while reading.
* Fluent readers are able to read orally and silently with speed, accuracy, and proper phrasing and expression, with attention to text features (punctuation, italics, etc.).
* Developing breadth of vocabulary dramatically improves reading comprehension and involves applying knowledge of word meanings and word relationships. The larger the reader’s vocabulary, the easier it is to make sense of text.
* Many words have multiple meanings. Knowledge of syntax/language structure, semantics/meaning, and context cues, and the use of resources can help in identifying the intended meaning of words and phrases as they are used in text.

**Big Idea: Developing an Initial Understanding of Text**

*Students will understand that:*

* Reading a wide range of print and non-print texts builds an understanding of texts, of themselves, and of different cultures.
* Different purposes to read include: reading to acquire new information and reading for personal fulfillment. The use of a variety of comprehension strategies greatly enhances understanding of text. Among these texts include fiction, non-fiction, classic and contemporary works.
* Different types of texts place different demands on the reader. Understanding text features, text structures, and characteristics associated with different text genres (including print and non-print) facilitates the reader’s ability to make meaning of the text

**Big Idea: Interpreting Text**

*Students will understand that:*

* Interpretations of text involve linking information across parts of a text and determining importance of the information presented.
* References from texts provide evidence to support conclusions drawn about the message, the information presented, or the author’s perspective.
* Authors make intentional choices that are designed to produce a desired effect on the reader.

**Big Idea: Reflecting and Responding to Text**

*Students will understand that:*

* Making reader-text connections involves thinking beyond the text and applying the text to a variety of situations.Connections may be expressed as comparisons, analogies, inferences, or the synthesis of ideas.
* References from texts provide evidence of applying ideas and making connections between text and self, text and other texts, and texts and the real world.
* Reading a wide range of literature by different authors, and from many time periods, cultures, and genres, builds an understanding of the extent (e.g., philosophical, ethical, aesthetic) of human experience.

## Big Idea: Demonstrating a Critical Stance

*Students will understand that:*

* Reading is a process that includes: applying a variety of strategies to comprehend, interpreting and evaluate texts; showing evidence of responsible interpretations of texts and examining texts critically.
* References from texts provide evidence to support judgments made about why and how the text was developed and considers the content, organization, and form.
* Determining the usefulness of text for a specific purpose, evaluating language and textual elements, and analyzing the author’s style are all ways to critically examine texts.
* All citizens need to critically consider messages provided through a variety of media in order to make informed decisions.

**Sample *General* Enduring Understandings for Writing**

#### **Big Idea: Writing Content**

*Students will understand that:*

* There are many reasons for students to write, including writing-to-learn, writing-to-demonstrate learning, and writing for authentic purposes and audiences.
* Different forms of writing are appropriate for different purposes and audiences and have different features (e.g., personal narrative, informational reports/articles, poetry, response to text).
* To be effective, writing must be a sufficiently developed, coherent unit of thought to address the needs of the intended audience.
* Writing can be used to make meaning of one’s own experience, as well as of other information/ ideas.

#### **Big Idea: Writing Structure**

*Students will understand that:*

* Sentences must be complete and clear. Variety in sentence structure helps to engage the reader and make meaning more clear. Sometimes, unconventional sentence structure is appropriate for an intended effect upon the reader.
* Different types of structures are appropriate for different purposes, audiences, and different forms of writing. Paragraphs and whole texts must be unified and coherent.
* Structural elements such as context, meaningful order of ideas, transitional elements, and conclusion all help make meaning clear for the reader.

**Big Idea: Writing Conventions**

*Students will understand that:*

* Writers need to choose their words/language with care, depending on the content, purpose, and audience.
* Language should be concise and precise. Strong verbs and nouns, concrete details, and sensory language help make meaning clear to the reader.
* Standard grammar and usage are important in making meaning clear to the reader; nonstandard or unconventional grammar may be used for intended effect.
* Writers need to use correct spelling, punctuation, and capitalization.
* Writers need to document sources/give credit for the ideas of others.

#### **Big Idea: Writing Process**

*Students will understand that:*

* The writing process is a helpful tool in constructing and demonstrating meaning of content (whether personal, expressive, academic, or practical) through writing.
* The stages are sometimes recursive (e.g. in the process of revising, a writer sometimes returns to earlier stages of the process).
* Writers work through the process at different rates. Often, the process is enhanced by conferencing with others.

#### **Sample *General* Enduring Understandings for Mathematics**

## Number Properties and Operations

*Students will understand that:*

* Numbers, ways of representing numbers, relationships among numbers, and number systems are means of representing real-world quantities.
* Meanings of and relationships among operations provide tools necessary to solve realistic problems encountered in everyday life.
* Computing fluently and making reasonable estimates increases the ability to solve realistic problems encountered in everyday life.
* Proportional reasoning is a tool for modeling and solving problems encountered in everyday situations.

### **Measurement**

*Students will understand that:*

* Measurable attributes of objects and the units, systems, and processes of measurement are powerful tools for making sense of the world around them.
* Measurements are determined by using appropriate techniques, tools, and formulas.

### **Geometry**

*Students will understand that:*

* Characteristics and properties of two-dimensional figures and three-dimensional objects describe the world, and are used to develop mathematical arguments about geometric relationships and to evaluate the arguments of others.
* Representational systems, including coordinate geometry, are means for specifying locations and describing spatial relationships and are organizers for making sense of the world around them.
* Transformations and symmetry are used to analyze real-world situations (e.g., art, nature, construction, and scientific exploration).
* Visualization, spatial reasoning, and geometric relationships model real-world situations.

### **Data Analysis, Statistics, and Probability**

*Students will understand that:*

* Appropriate statistical methods are necessary to become intelligent consumers.
* The collection, organization, and display of data are used to answer questions.
* The choice of data display can affect the visual message communicated.
* Inferences and predictions from data are used to make critical and informed decisions.
* Probability can be used to make decisions, predictions, or choices.

### **Algebraic Thinking**

*Students will understand that:*

* Patterns, relations, and functions are tools that help explain or predict real-world phenomena.
* Algebra represents mathematical situations and structures for analysis and problem solving.
* Real-world situations can be represented using mathematical models to analyze quantitative relationships.
* Functions are used to analyze change in various contexts and model real-world phenomena

**Sample *General* Enduring Understandings for Other Content Areas**

##### Science

*Students will understand that:*

* An organism’s structure helps it to survive in its environment.
* Scientific claims must be verified by independent investigations.
* Standardized measures allow people to more accurately describe the physical world.

##### Social Studies

*Students will understand that:*

* Governments balance the rights of individuals with the common good.
* Topography, climate, and natural resources of a region influence the culture, economy, and lifestyles of its inhabitants.

##### The Arts

*Students will understand that:*

* Art both reflects and shapes culture.
* Artists choose different tools, techniques, and materials to express specific ideas.
* The greatest artists often break with established traditions and techniques to better express what they see and feel.