## **Standards Codes**

### For K-8 there are 11 Domains

CC = Counting and Cardinality,

OA = Operations and Algebraic Thinking,

NBT = Number and Operations in Base 10,

MD = Measurement and Data,

G = Geometry,

NF = Number and Operations-Fractions,

RP = Ratios and Proportional Relationships,

NS = Number System,

EE = Expressions and Equations,

SP = Statistics and Probability,

F = Functions.

The numbering system for K-8 is

Grade.Domain.Standard# For example: 2.MD.7

### For High School there are 6 Conceptual Categories

### **Number and Quantity (N)**

N-RN = The Real Number System

N-Q = Quantities

N-CN = The Complex Number System

N-VM = Vector and Matrix Quantities

### Algebra (A)

A-SSE = Seeing Structure in Expressions

A-APR = Arithmetic with Polynomials and Rational Expressions

A-CED = Creating Equations

A-REI = Reasoning with Equations and inequalities

### Functions (F)

F-IF = Interpreting Functions

F-BF = Building Functions

F-LE = Linear and Exponential Models

F-TF = Trigonometric Functions

### Modeling (★)

Appear throughout the HS standards

### Geometry (G)

G-CO = Congruence

G-SRT = Similarity, Right Triangles, and Trigonometry

G-C = Circles

G-GPE = Expressing Geometric Properties with Equations

G-GMD = Geometric Measurement and Dimension

G-MG = Modeling with Geometry

### Statistics and Probability (S)

S-ID = Categorical and Quantitative Data

S-IC = Inferences and Justifying Conclusions

S-CP = Conditional Probability and Rules of Probability

S-MD = Using Probability to Make Decisions

The numbering system for HS is

Category.Domain.Standard# Examples: F.LE.2 or F.LE.1b

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Common Core State Standards for Mathematics - CCSSM

This card available for download at:

faculty.wiu.edu/JR-Olsen/wiu/common-core/front.html By Jim Olsen

# Standards for Mathematical Practice Brief Form

Students using these practices understand and apply mathematics with confidence. Therefore, the mathematical practices describe behaviors that we want all students to develop.

### 1 Make sense of problems and persevere in solving them.

► Find meaning in problems, ► Analyze, predict and plan solution pathways, ► Verify answers, ► Continually ask themselves: "Does this make sense?"

### 2 Reason abstractly and quantitatively.

► Make sense of quantities and their relationships, ► Use two complementary abilities: *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols, and *contextualize*—to pause during the manipulation process to consider the referents for the symbols involved, ► Create coherent representations.

# 3 Construct viable arguments and critique the reasoning of others.

► Understand and use information to construct arguments, ► Make and explore the truth of conjectures, ► Justify conclusions and respond to arguments of others.

### 4 Model with mathematics.

► Apply mathematics to problems in everyday life, society, and the workplace, ► Identify quantities in a practical situation, ► Interpret results in the context of the situation and reflect on whether the results make sense.

### 5 Use appropriate tools strategically.

► Consider the available tools when solving problems, including mental math, pencil and paper, concrete models, protractor, calculators, and other technological tools.

### 6 Attend to precision.

- ► Communicate precisely to others, ► Use clear definitions,
- ► State the meaning of symbols, and specify units, ► Label axes,
- ► Calculate accurately and efficiently.

#### 7 Look for and make use of structure.

▶ Discern patterns and structures, ▶ Can step back for an overview and shift perspective, ▶ See complicated things as single objects or as being composed of several objects.

### 8 Look for and express regularity in repeated reasoning.

► When calculations are repeated, look for general methods, patterns and shortcuts, ► Maintain oversight of the process, while attending to the details, ► Evaluate whether intermediate results and answers makes sense.

The full version Mathematical Practices is on pages 6-8 of the Common Core State Standards for Mathematics. Available for download at: www.corestandards.org/

By Jim Olsen