EC3 MATH FRAMEWORK

Contents

EXPECTATIONS

MATH TOOLS

To support curriculum implementation, the Common Core recommends the use of certain math tools at each grade level. CAISL implements these recommendations. See link below:
https://caislisbon-my.sharepoint.com/:w:/g/personal/lfernandes_caislisbon_org/ETYC6RQH_TJAsuwFITSerZsBeWDnOilidGWgs_755HsY6Q?e=Rmp2mF

INFORMATION TECHNOLOGY EXPECTATIONS

Students will be expected to use a variety of digital tools according to grade level expectations stated in CAISL's Research and Information Technology Integration Scope and Sequence.

LEARNING TO LEARN

Use directional commands to move the bee bot in a simple path. DOK 1
Use technology as a learning tool to process the learning of new concepts or express understanding of new discoveries. DOK 1

PERFORMANCE INDICATORS

MATH PRACTICES

Explanations of Math Practices: By the end of the year students will be expected to problem solve, reason mathematically, and communicate efficiently according to grade level expectations. See link below:
https://caislisbon-my.sharepoint.com/:b:/g/personal/lfernandes_caislisbon_org/EbbbDIcv8DJBpRGZ0XCSX7UBjBBZvBwBJSfzhM7H7HPOeg?e=WBl8cs

PROBLEM SOLVING

Make sense of problems and persevere in solving them
Look for and make use of structure (Deductive Reasoning)
Look for and express regularity in repeated reasoning (Inductive Reasoning)

MATHEMATICAL REASONING, COMMUNICATION AND MODELING

Reason abstractly and quantitatively
Construct viable arguments and critique the reasoning of others
Model with mathematics
Use appropriate tools strategically
Attend to precision

MATH CONCEPTS

COUNTING AND CARDINALITY

Count verbally to 3, then 5, by ones. DOK 1 E
Recognize some written numerals, does not yet relate to concrete representations of quantity. DOK 1
Understand the relationship between numbers and quantities to 3 and then 5; connect counting to cardinality. DOK 2 E
Ability to apply the strategies of touching objects as they are counted and organized in a row by the adult. DOK 1
Knowledge of and ability to apply one-to-one correspondence when counting. DOK 1
Counts 3, then 5 objects; attempts to recount objects when asked "how many". DOK 1 E
Recognize that 1 is less than 2, 2 is less than 3, …up to 5. DOK 2
Represent a number (0-3, then to 4) by producing a set of objects with concrete materials, pictures, and/or numerals (with 0 representing a count of no objects). DOK 2
Ability to build sets (0-4) with concrete materials to show a given amount given a model. DOK 2
Knowledge of the relationship between counting and quantity. DOK 2 E
Recognizes when small sets are the same size. DOK 2
When shown a set of 1 to 4 objects, makes another set of 1-4 objects. DOK 2
Explore relationships by comparing groups of objects that are quite different in size to determine greater than/more or less than, and equal to/same for groups of 1. DOK3

Ability to compare sets visually and/or matching the sets using one-to-one correspondence for sets of 1-4. DOK2

Begins to have knowledge of the terms "greater than/more than", "less than", and "equal to/same" through experiences with comparing objects when variance is quite large. DOK 2

MEASUREMENT AND DATA

Begins to use comparative words such as big, little, tall, short, and long in everyday conversations. DOK 2
Begins to use descriptive words such as big, little, tall, short, and long in everyday conversations. DOK 2
Sorts by single and common attributes (color, shape, size, function). DOK1
Uses simple comparative words for categories that are quite different using greater than/more, less than (10 bears vs. 2dogs, "More bears than dogs") and equal to/same for small categories of same objects (2 bears and 2 bears "same/equal"). DOK 2

GEOMETRY

Match congruent shapes. DOK 2
Sorts shapes (circles vs. squares vs. triangles). DOK 2
Labels and identifies simple shapes by name. DOK 1
Comments on common attribute ("These are all round"). DOK 1
Copy simple structures using three-dimensional shapes. DOK 2
Ability to build structures using manipulatives and blocks after a model. DOK 2
Ability to describe the structures including some positional relationships, etc. DOK 2

FURTHER CURRICULAR EXPECTATIONS

For the Performance Indicator (Counting and Cardinality):
Count verbally to 3, then 5, by ones.
- Ability to rote count number words in order.
- Ability to use verbal counting as meaning full counting to solve a problem, such as finding out how many are in a set.
- When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.