

Common Core Math and English Language Arts Standards We Can Frequently Reinforce in Gardening, Cooking and Tasting Activities

Language Arts

- K.W.3 Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.
- K.W.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- K.SL.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
- K.SL.6 Speak audibly and express thoughts, feelings, and ideas clearly.
- K.L.5.a Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.
- K.L.5.c Identify real-life connections between words and their use (e.g., note places at school that are colorful).
- I.L.5.c Identify real-life connections between words and their use (e.g., note places at home that are cozy).
- I.W.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.
- I.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
- I.SL.6 Produce complete sentences when appropriate to task and situation.
- 2.W.7 Participate in shared research and writing projects (e.g. ...record science observations)
- 2.SL.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
- 2.SL.3 Asks and answers questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

- 2.SL.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- 2.L.5.a Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).
- 2.L.5.b Distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny).
- 2.L.5.d Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.
- 3.SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher- led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- 3.SL.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
- 4.SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher- led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
- 5.SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher- led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

Grades 6-12: General Reading and Writing

Reading Standards for Literacy in Science and Technical Subjects (RST)

Writing Standards for Literacy in History/Social Studies, Science and Technical Subjects (WHST)

Grades 6-12: When Conducting Experiments

RST.6-12.3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

WHST.2 Write informative/explanatory texts, including ... scientific procedures/experiments, or technical processes.

Math:

- K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.
- K.CC.5 Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.
- K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Groups with up to 10 objects)
- K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
- K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
- K.MD.2 Directly compare two objects with a measureable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter
- K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
- K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.
- 2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- 2.MD.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
- 2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.
- 2.MD.4 Measure to determine how much longer one object is than another

expressing the length difference in terms of a standard length unit.

- 2.MD.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.
- 3.NF.1 Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.
- 3.MD.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one- step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
- 3.MD.8 Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
- 5.MD.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05m), and use these conversions in solving multi-step, real world problems.

Grades 6-12

Common Core Math standards maintain a consistent focus on “real-world problems,” and the garden and kitchen can provide ideal “real world” contexts for putting these skills to use. The opportunities for connection are too varied and diverse to list, but a few particularly apt examples include:

6th Grade Number System: Apply and extend previous understandings of multiplication and division to divide fractions by fractions. *For example: “If 3 people share $\frac{1}{2}$ pound of strawberries equally, what fraction of a pound of strawberries will each person get?”*

6th Grade Geometry: Solve real-world and mathematical problems involving area, surface area, and volume. *For example: What is the area of this garden bed? What is the volume of the bed, which will determine how much soil we need to fill it? What is the surface area of the top of the bed, which will determine how much weed cloth we will need?*

7th Grade Statistics and Probability: Use random sampling to draw inferences about a population. *For example: Estimate the mean tomato plant height by randomly sampling tomato plants around the garden; predict the winner of a taste test based on randomly sampled survey data.*