

# National Standards Alignment for 79620 Silly Straws Challenge

## Next Generation Science Standards

### Matter and Its Interactions

**5-PS1-3** Make observations and measurements to identify materials based on their properties.

### Engineering Design

**3-5-ETS1-2** Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

## Science and Engineering Practices

### Practice 2: Developing and Using Models

- Develop a diagram or simple physical prototype to convey a proposed object, tool, or process.

### Practice 3: Planning and Carrying Out Investigations

- Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon or test design solutions.

### Practice 7: Engaging in Argument from Evidence

- Respectfully provide and receive critiques from peers about a proposed procedure, explanation, or model by citing relevant evidence and posing specific questions.
- Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem.

## CCSS Mathematics

**3.NBT.2** Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

**4.MD.A.2** Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

**5.NBT.7** Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

## Mathematical Practice

**MP1** Make sense of problems and persevere in solving them.

**MP4** Model with mathematics.

**MP5** Use appropriate tools strategically.

**MP6** Attend to precision.

## CCSS English Language Arts

**CCRA W.2** Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

**CCRA W.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

**CCRA W.5** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.