

National Standards Alignment for 79619 Helicopter Hang Time Exploration

Next Generation Science Standards

K-2-ETS1 Engineering Design

K-2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

K-2-ETS1-3 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

Science and Engineering Practices

Practice 3: Planning and Carrying Out Investigations

- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question.
- Make observations and/or measurements of a proposed object or tool or solution to determine if it solves a problem or meets a goal.

Practice 5: Using Mathematics and Computational Thinking

- Use quantitative data to compare two alternative solutions to a problem.

Practice 6: Construction Explanations and Designing Solutions

- Generate and/or compare multiple solutions to a problem.

Practice 7: Engaging in Argument from Evidence

- Make a claim about the effectiveness of an object, tool, or solution that is supported by relevant evidence.

CCSS Mathematics

1.G.2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

1.NBT.A.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

1.NBT.C.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, 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. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

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.SL.1 Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on each others' ideas and expressing their own clearly and persuasively.

CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.