

Investigation #1 Rubric

Check all that apply

Aspect	Meets Expectations	Fails to Meet Expectations
Draws a model of an exhibit using mathematical concepts in Geometry and Algebra.		
Provides reasoning for the models created in the investigation.		
Constructs viable arguments and critiques the reasoning of others.		
Uses scaling to create the zoo exhibit model.		
Uses formulas for calculating perimeter, area, volume, and surface area.		
Incorporates multiple landforms in zoo exhibit model.		
Distinguishes between climate and weather.		
Discusses, compares, and negotiates methods used, results obtained, and explanations among groups of students conducting the same investigation.		
Explains the difference between an experiment and an investigation.		
Writes arguments to support claims with clear reasons and relevant evidence.		

Standards Addressed:

Math Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics.
5. Use appropriate tools strategically.

CCSS.Math.Content.7.G.A.2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

CCSS.Math.Content.7.G.A.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.

CCSS.Math.Content.7.G.B.4 Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.

CCSS.Math.Content.7.G.B.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

SC.6.E.6.2: Recognize that there are a variety of different landforms on Earth's surface such as coastlines, dunes, rivers, mountains, glaciers, deltas, and lakes and relate these landforms as they apply to Florida.

SC.6.N.1.4: Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.

SC.7.N.1.1: Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.

SC.7.N.1.3: Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.

SC.6.E.7.6: Differentiate between weather and climate.

CCSS.ELA-Literacy.W.7.1 Write arguments to support claims with clear reasons and relevant evidence.

- CCSS.ELA-Literacy.W.7.1a Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.
- CCSS.ELA-Literacy.W.7.1b Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
- CCSS.ELA-Literacy.W.7.1c Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.
- CCSS.ELA-Literacy.W.7.1d Establish and maintain a formal style.
- CCSS.ELA-Literacy.W.7.1e Provide a concluding statement or section that follows from and supports the argument presented.

CCSS.ELA-Literacy.W.7.6 Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.