

Loyalsock Township School District

Benchmarks: What Students Should Know and Be Able to Do

SAS - Curriculum Framework (PA Core: Mathematics / Geometry / 6th Grade)

Long Term Transfer Goals

1. Make sense of and persevere in solving complex and novel mathematical problems.
2. Use effective mathematical reasoning to construct viable arguments and critique the reasoning of others.
3. Communicate precisely when making mathematical statements and express answers with a degree of precision appropriate for the context of the problem/situation.
4. Apply mathematical knowledge to analyze and model situations/relationships using multiple representations and appropriate tools in order to make decisions, solve problems, and draw conclusions.
5. Make use of structure and repeated reasoning to gain a mathematical perspective and formulate generalized problem solving strategies.

Big Idea

- Patterns exhibit relationships that can be extended, described, and generalized.

Essential Question

- How can recognizing repetition or regularity assist in solving problems more efficiently?

Concepts	Competencies	Vocabulary	Standards	Eligible Content
Area, Surface Area, and Volume	Determine the area of triangles, quadrilaterals, irregular polygons and compound polygons.	Absolute value Algebraic expressions Box and whisker plots Coefficient Compound polygon Dependent variable Distributive property Dot plots Exponent Greatest Common Factor Independent variable Inequality Integer Interquartile range Irregular Polygon Least Common Multiple Mean Mean absolute deviation	CC.2.3.6.A.1	M06.C-G.1.1.1, M06.C-G.1.1.2, M06.C-G.1.1.3, M06.C-G.1.1.4, M06.C-G.1.1.5, M06.C-G.1.1.6
Area, Surface Area, and Volume	Calculate the area of a polygon on a plane given the coordinates of the vertices.	Absolute value Algebraic expressions Box and whisker plots Coefficient Compound polygon Dependent variable Distributive property Dot plots Exponent Greatest Common Factor Independent variable Inequality Integer Interquartile range Irregular Polygon Least Common Multiple Mean Mean absolute deviation	CC.2.3.6.A.1	M06.C-G.1.1.1, M06.C-G.1.1.2, M06.C-G.1.1.3, M06.C-G.1.1.4, M06.C-G.1.1.5, M06.C-G.1.1.6
Area, Surface Area, and Volume	Find volumes of right rectangular prisms with fractional edge lengths.	Absolute value Algebraic expressions Box and whisker plots Coefficient Compound polygon Dependent variable Distributive property Dot plots Exponent Greatest Common Factor Independent variable Inequality Integer Interquartile range Irregular Polygon Least Common Multiple Mean Mean absolute deviation	CC.2.3.6.A.1	M06.C-G.1.1.1, M06.C-G.1.1.2, M06.C-G.1.1.3, M06.C-G.1.1.4, M06.C-G.1.1.5, M06.C-G.1.1.6

Area, Surface Area, and Volume	Use nets to find surface area of 3 – dimensional figures.	Absolute value Algebraic expressions Box and whisker plots Coefficient Compound polygon Dependent variable Distributive property Dot plots Exponent Greatest Common Factor Independent variable Inequality Integer Interquartile range Irregular Polygon Least Common Multiple Mean Mean absolute deviation	CC.2.3.6.A.1	M06.C-G.1.1.1, M06.C-G.1.1.2, M06.C-G.1.1.3, M06.C-G.1.1.4, M06.C-G.1.1.5, M06.C-G.1.1.6
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Essential Question

- How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems?

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Essential Question

- How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving?

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Essential Question

- How can geometric properties and theorems be used to describe, model, and analyze situations?

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Big Idea

- Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization.

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