

STEMs TO SUNSHINE

Common Core Maps

ELA

• Reading Strands for Literature

- Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
- Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.
- Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.
- Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.
- Explain how an author develops the point of view of the narrator or speaker in the text.

• Reading Strands for Informational Text

- Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
- Analyze in detail, event, or idea is introduced, illustrated, and elaborated in a text (e.g. through examples or anecdotes).

• Speaking and Listening

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.
- Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
- Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.
- Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
- Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.

MATH

• Expressions and Equations 6.EE

- Represent and analyze quantitative relationships between dependent and independent variables.
- 9. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.

• Geometry 6.G

- Solve real-world and mathematical problems involving area, surface area, and volume.
 - 1. Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
 - 2. Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.
 - 3. Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
 - 4. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

6th Grade Solar Centered Universe