

## Grade 8 Learning Outcomes January 2019

### English Language Arts

- Determine the meanings of words and phrases as they are used in a text and analyze their specific impact on the text, including meaning and tone.
- Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.
- Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.
- Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.

### Social Studies

- Immigration Changes the American Dynamic
- Immigrants were forced to, and still, make difficult decisions for future benefit
- Immigration led to the growth of cities and new problems were faced by the nation because of it

### Mathematics

- Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.<sup>1</sup>
- Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).
- Interpret the equation  $y = mx + b$  as defining a linear function, whose graph is a straight line; give examples of functions that are not linear.
- Model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two  $(x, y)$  values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
- Describe qualitatively the functional relationship between two quantities by analyzing a graph. Sketch a graph that exhibits the qualitative features of a function that has been described verbally.
- Graph proportional relationships; unit rate as the slope. Compare two different proportional relationships represented in different ways.
- Use similar triangles to show the slope is same between any two points on a line; derive the equation  $y = mx + b$  for a line intercepting the vertical axis at  $b$ .

### Science

- Understand the relationship between cell division and growth.
- Know what is cellular differentiation.
- Understand the process of how one cell can become a multicellular organism.
- Know the steps and process of mitosis.
- Understand the basic principles of sexual and asexual reproduction.
- Know the steps and process of meiosis.
- Distinguish between Eukaryotic and Prokaryotic cells.

### Science Lab

- Students will use mathematical analysis , scientific inquiry , and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.
- Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment.
- To understand that organisms maintain a dynamic equilibrium that sustains life.

### Technology with Miss Rappo

**CCSS.ELA-Literacy. W.8.6** Use technology, including the Internet, to produce and publish writing and present relationships between information and ideas efficiently as well as to interact and collaborate with others.

