Appendix A
Course Map for Science Grade 6
Scientific Investigation, Reasoning and Logic

6.1 The student will plans and conduct investigations in which
observations are made involving fine discrimination between similar objects and organisms;
a classification system is developed based on multiple attributes;
differences in descriptions and working definitions are made;
precise and approximate measures are recorded;
scale models are used to estimate distance, volume, and quantity;
hypotheses are stated in ways that identify the independent (manipulated) and dependent (responding)
variables;
a method is devised to test the validity of predictions and inferences;
one variable is manipulated over time with many repeated trials;
data are collected, recorded, analyzed, and reported using appropriate metric measurement;
data are organized and communicated through graphical representation (graphs, charts, diagrams); and
models are designed to explain a sequence.

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[the remainder of the SOL objectives are listed]
Matter

6.5 The student will investigate and understand that all matter is made up of atoms. Key concepts include
- Atoms are made up of electrons, protons, and neutrons;
- Atoms of any element are alike but are different from atoms of other elements;
- Historical development and significance of discoveries related to the atom.

The student will investigate and understand how to classify materials as elements, compounds, or mixtures. Key concepts include
- Mixtures can be separated by physical processes;
- Compounds can only be separated by chemical processes;
- Elements cannot be separated by physical or chemical means.
[the remainder of the SOLs listed on back of map]
Course map for Social Studies Grade 6
Course Map for Social Studies Grade 6 (con’t)
### America's Roots and Wings

#### The "10" Course Questions

1. Through the Civil War, Immigration, the rise of big business and new inventions how did America change?

2. How did industrialization and urbanization affect African Americans, women and children?

3. What was the United States' role as a world power between 1898 and 1930?

4. Why was the Twenties a time of unrest and innovation?

5. How did the crash of 1929, the Great Depression and the New Deal impact peoples' lifestyles and their view on the president in office?

6. What were some of the major causes and effects of World War II?

7. How did Americans handle controversial topics after World War II?

8. What choices has the U.S. made as a world power during the second half of the Twentieth Century?
The Civil War

1. Who are considered to be the great leaders of the Civil War?
2. How did Lincoln's view of the nature of the Union differ from Lee's?
3. What were the conflicts of conscience faced by Americans such as Robert E. Lee?
4. What were the major battles of the Civil War?
5. What were the effects of the Emancipation Proclamation?
6. What made the Civil War particularly brutal?
7. What were the basic provisions of the 13th, 14th, and 15th Amendments?
8. What occurred after the Civil War to anger the South?
9. What were the Reconstruction policies for the South?
History SOL: The student will explain how, following the Civil War, massive immigration, combined with the rise of big business, heavy industry, and mechanized farming transformed American life, with emphasis on why various immigrant groups came to America, some obstacles they faced, and the important contributions they made. *the growth of American cities, including the impact of racial and ethnic control and the role of political machines.

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The United Organizer

Last Unit/Experience: Changing America: Immigration
Current Unit: Industrialization, Urbanization
Next Unit/Experience: America Overseas

1. Why did cities grow so rapidly after the Civil War?
2. What were the problems associated with the rapid growth of the cities?
3. What attempts were made to improve living conditions in cities?
4. How did the Progressive Movement change life for Americans?
5. What was Theodore Roosevelt's Square Deal?
6. Who were the leading women of the suffrage movement?
7. What was the impact of the suffrage and temperance movements?
8. What was it like to be a worker?
9. How did the workers respond to treatment by management?
10. What were the changes caused by the urbanization and industrialization of the U.S.?
11. What major factors influenced political changes as the United States moved from an agrarian to a more industrial society?
History SOL 6.3 a-c: The student will describe and analyze the changing role of the United States in world affairs between 1898 and 1930, with emphasis on: The Spanish American War, The Panama Canal and Teddy Roosevelt’s “Big Stick Diplomacy”

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History SOL 6.3 d-f: The student will describe and analyze the changing role of the United States in world affairs between 1898 and 1930, with emphasis on: the United States’ role in World War I, The League of Nations and tariff barriers to world trade.

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The Unit Organizer

UNIT MAP

UNIT SCHEDULE

1. How did Americans spend their time once the war was over?
2. Who were the "heroes" of the decade?
3. What contributions did African Americans make to cultural and social life in the 1920's?
4. Why did the automobile become so popular in the 1920's?
5. What impact did the automobile have on the lives of Americans?
6. What were the consequences of Prohibition? Why did Prohibition fail?
7. What was the impact of the Women's Suffrage Movement?
8. Why were labor conditions a cause for tensions between business and labor following World War I?
9. What impact did electricity have on where and how American lived during the 1920's?
History SOL 6.5 a-d: The student will explain the Great Depression and its effects, with emphasis on: weakness in the economy, the collapse of financial markets in the late 1920’s and other events that triggered the Great Crash; the extent and depth of business failures, unemployment, and poverty; the New Deal and its impact on the Depression and the future role of government in the economy; and personalities and leaders of the period, including Will Rogers, Eleanor and Franklin Roosevelt and Charles Lindbergh.
History SOL 6.6 a-e: The student will analyze and explain the major causes, events, personalities and effects of World War II, with emphasis on: the rise of fascism, nazism, and communism in the 1930’s and 1940’s and the response of Europe and the United States*aggression in Europe and the Pacific *failure of the policy of appeasement *the Holocaust and *major battles of WWII and the reasons for Allied victory

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Course Map for Math Grade 6
Number and Number Sense

6.1 The student will identify representations of a given percent and describe orally and in writing the equivalence relationship between fractions, decimals, and percents.

6.2 The student will describe and compare two sets of data using ratios and will use appropriate notations such as a/b, a to b, and a:b

Computation and Estimation

6.8 The student will solve multi-step consumer application problems involving fractions and decimals and present data and conclusions in paragraphs, tables, or graphs

[the remainder of SOLs appropriate to this unit are listed on back of map]
**Probability and Statistics**

6.18 The student, given a problem situation, will collect, analyze, display, and interpret data in a variety of graphical methods, including line, bar, and circle graphs and stem-and-leaf and box-and-whisker plots. Circle graphs will be limited to halves, fourths, and eighths.

6.19 The student will describe the mean, median, and mode as measures of central tendency and determine their meaning for a set of data.

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**The Unit Organizer**

**Why do I need to know central of tendencies?**

**Number Sense**

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**What is “central of tendencies”?**

1. **Identify**
2. How will I display my central of tendencies?
3. **Apply**
4. **Compare**
5. **Analyze**
6. **Synthesize/Evaluate**

**What are the many ways I can use statistics?**

**Why is it important to interpret graphs?**

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The Unit Organizer

**BIGGER PICTURE**

How will the probability of choices help me make a good choice?

**CURRENT UNIT**

Geometry

Probability

Linear Equations

**UNIT SCHEDULE**

**UNIT MAP**

- Ratios
- Chances
- Predictions

**SOLVER/THINK:**

6.2 The student will describe and compare two sets of data using ratios and will use appropriate notations such as \( a:b \), \( a \) to \( b \), and \( a \) of \( b \).

6.20 The student will determine and interpret the probability of an event occurring from a given sample space.

**UNIT SELF-TEST QUESTIONS**

1. What is a ratio? What are the different ways to write a ratio?
2. What do ratios have to do with probability?
3. How do I make predictions of an event?
4. How is a event fair or unfair?
5. What is a chance?
6. How can I arrange information to show probability? (Analyze, Synthesize)
7. What is probability? (Identify)

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Probability and Statistics

6.18 The student, given a problems situation, will collect, analyze, display and interpret data in a variety of graphical methods, including line, bar and circle graphs and stem and leaf box and whisker plots. Circle graphs will be limited to halves, fourths, and eighths.

Patterns, Functions and Algebra

6.21 The student will recognize, describe and extend a variety of numerical and geometric patterns.

[the remainder of the appropriate SOLs are listed on the back of the map]
America's Words

Modes of Writing
- Descriptive
- Narrative
- Persuasive
- Expository/Informational

Underlying Concepts
- Fact/Opinion
- Word Origin
- Genre
- Point of View
- Conflict
- Plot
- Tone
- Setting
- Imagery

Composing
- Written Expression
- Mechanics

Thinking Portfolio
- Genre (Library)
- Power Outline
- CIRC
- Peer/Self Editing
- Visualization

Routines & Strategies

UNITs
- Let's Get Organized!
- Penguins!
- Describing My World
- Show Me a Story
- Support Your Beliefs

Explained
Why or How

Flath
Language Arts SOL 6.3: The student will read and learn the meanings of unfamiliar words. The student will use word-reference materials.

Language Arts SOL 6.5: The student will use context clues to read unfamiliar words.

Language Arts SOL 6.8: The student will use writing as a tool for all learning in all subjects.
   The student will: make lists; paraphrase what is heard or read; summarize what is heard or read; hypothesize; connect knowledge within and across disciplines and synthesize information to construct new concepts.

Language Arts SOL 6.9: The student will select the best sources for a given purpose.

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Language Arts SOL 6.6: The student will read and write a variety of poetry

* The student will describe the visual images created by language
* The student will describe how word choice, speaker, and imagery elicit a response from the reader

Language Arts SOL 6.7: The students will write descriptions

* The student will use a variety of planning strategies to generate and organize ideas
* The students will establish a central idea, organization, elaboration and unity
* The student will select vocabulary and information to enhance the central idea, tone and voice
* The student will expand and embed ideas by using modifiers, standard coordination, and subordination in complete sentences

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Language Arts SOL 6.4:

The student will identify and describe literary elements such as time, setting, point of view, mood, plot, main idea, and character traits.

The student will explain how character and plot development are used in a selection to support a central conflict or story line.

[The remainder of the appropriate SOLs are listed on the back of the map]
Language Arts SOL 6.4: The student will read a variety of nonfiction (argumentative)

Language Arts SOL 6.1: The student will analyze oral participation in small-group activities
  * The student will communicate as a leader and contributor
  * The student will evaluate her contributions to discussions
  * The student will analyze the effectiveness of participant interactions

Language Arts SOL 6.2: The student will listen critically and express opinions in oral presentations
  * The student will distinguish between facts and opinions
  * The student will compare and contrast points of view
  * The student will present a convincing argument

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Language Arts SOL 6.4: The student will read a variety of nonfiction (expository)
Language Arts SOL 6.5: The student will demonstrate comprehension of a variety of selections
* The student will identify questions to be answered
* The student will make, confirm, or revise predictions as needed
* The student will draw conclusions and make inferences based on explicit and implied information
* The student will organize for use in written and oral presentations
* The student will compare and contrast information about one topic contained in different selections

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