

# 4th Grade Units Overview

## Math Units- Engage NY

- In **Module 1** students extend their work with whole numbers. They begin with large numbers using familiar units (hundreds and thousands) and develop their understanding of millions by building knowledge of the pattern of times ten in the base ten system on the place value chart (4.NBT.1). They recognize that each sequence of three digits is read as hundreds, tens, and ones followed by the naming of the corresponding base thousand unit (thousand, million, billion).
- **Module 2** uses length, mass and capacity in the metric system to convert between units using place value knowledge. Students recognize patterns of converting units on the place value chart, just as 1000 grams equals 1 kilogram, 1000 ones is equal to 1 thousand. Conversions are recorded in two-column tables and number lines, and are applied in single- and multi-step word problems solved by the addition and subtraction algorithm or a special strategy. Mixed unit practice prepares students for multi-digit operations and manipulating fractional units in future modules.
- In **Module 3**, students use place value understanding and visual representations to solve multiplication and division problems with multi-digit numbers. As a key area of focus for Grade 4, this module moves slowly but comprehensively to develop students' ability to reason about the methods and models chosen to solve problems with multi-digit factors and dividends.
- **Module 4** introduces points, lines, line segments, rays, and angles, as well as the relationships between them. Students construct, recognize, and define these geometric objects before using their new knowledge and understanding to classify figures and solve problems. With angle measure playing a key role in their work throughout the module, students learn how to create and measure angles, as well as create and solve equations to find unknown angle measures. In these problems, where the unknown angle is represented by a letter, students explore both measuring the unknown angle with a protractor and reasoning through the solving of an equation. Through decomposition and composition

activities as well as an exploration of symmetry, students recognize specific attributes present in two-dimensional figures. They further develop their understanding of these attributes as they classify two-dimensional figures based on them.

- In **Module 5**, students build on their Grade 3 work with unit fractions as they explore fraction equivalence and extend this understanding to mixed numbers. This leads to the comparison of fractions and mixed numbers and the representation of both in a variety of models. Benchmark fractions play an important part in students' ability to generalize and reason about relative fraction and mixed number sizes. Students then have the opportunity to apply what they know to be true for whole number operations to the new concepts of fractions and mixed number operations.
- **Module 6** gives students their first opportunity to explore decimal numbers via their relationship to decimal fractions, expressing a given quantity in both fraction and decimal forms. Utilizing the understanding of fractions developed throughout Module 5, students apply the same reasoning to decimal numbers, building a solid foundation for Grade 5 work with decimal operations.
- In **Module 7**, students build their competencies in measurement as they relate multiplication to the conversion of measurement units. Throughout the module, students will explore multiple strategies for solving measurement problems involving unit conversion.

# Science Units

- **Bundle 1 Organism Structures and Behavior:** Plants and animals have internal and external structures that help them grow, protect themselves, behave a certain way, and reproduce. Animals have sense receptors that include vision, hearing, smell, taste, and touch. Sense receptors send information to an animal's brain, which, combined with perceptions and memories, guides their actions.
- **Bundle 2: Changes Over Time to Earth's Surface and Resources:** The locations of mountain ranges, deep-ocean trenches, ocean-floor structures, earthquakes, and volcanoes usually occur near the borders of Earth's tectonic plates. Patterns of rock formations and fossils can tell us what changes to Earth's surface have occurred over time. Earth's surface also changes slowly over time due to forces from wind, water, and ice. Renewable and nonrenewable resources exist in and on Earth's surface, and their use affects the environment. Natural hazards such as earthquakes, volcanic eruptions, and tsunamis also cause changes to Earth's surface, but humans can take steps to reduce their impacts.
- **Bundle 3: Using Energy Transformations:** Energy is present whenever there are moving objects, sound, light, or heat. Energy can be transferred from one object to another and into different forms. Energy can be transferred from place to place by moving objects or through sound, light, or electric currents. The faster an object is moving, the more energy it has. Energy can be stored until it needs to be transferred into another form.
- **Bundle 4: Communicating Using Wave Energy:** Waves are regular patterns of motion. Waves differ in amplitude (height) and wavelength (distance between waves). We see objects because light is reflected off the objects and enters our eyes. Digitized information can travel over long distances by being converted from voice or text to digitized form and back to voice or text.

# Social Studies Units

- **Money Matters:** Fourth graders will be developing an understanding of producers and consumers and how to make economic choices based on supply, demand, and the actions of the governments. Have you ever thought of a cool business idea that could help change the world? You might be surprised to know that kids do not have to wait until they are grown-ups to start a business. With creativity, hard work, and a little math, anyone can do it. Now let's get down to business!
- **We the People:** The Declaration of Independence, the Articles of Confederation, and the Constitution- these are the founding documents of the United States of America. Inside these pages, you will learn their meaning and purpose and see how a collection of words on parchment built a powerful nation.
- **City Histories in Maps:** Cities grow to meet the changing needs to people. Geographic locations, resources, and human creativity also play important roles. Find out how three world-class cities got that way. Look at a range of maps to see how Los Angeles, Washington, D.C., and Mexico City were developed.
- **Delaware Colony:** Despite conflicts with Native Americans and other colonists, Dutch, Swedish, and English settlers flocked to Delaware for its welcoming attitude towards people of any country or religious belief. Find out how Delaware got the nickname "The First State", what role it played during the Revolutionary War, and what daily life was like in Colonial times and the early days of statehood.

# W.O.L.V.E.S Reading (ELA, SLA, and Social Studies)

- Whole Group Read Aloud
- Guided Instruction
- Partner Collaboration
- Skills we focus on:
  - Reading Comprehension
  - Fluency
  - Vocabulary
  - Writing: Open ended questions, sentence structure, and grammar
- R.A.C.E.:

## **R.A.C.E.**

When Answering an Open-Ended Question...

<b>R</b>	<b><u>RESTATE</u></b> the Question <input type="checkbox"/> <u>Underline</u> <b>key words</b> in the question
<b>A</b>	<b><u>ANSWER</u></b> the Question <input type="checkbox"/> Answer the question in your <b>own words</b>
<b>C</b>	<b><u>CITE</u></b> your <b>EVIDENCE</b> <input type="checkbox"/> Include Page # or Chapter # <input type="checkbox"/> "Quotation Marks" around the quotes from the text
<b>E</b>	<b><u>EXPLAIN</u></b> your <b>EVIDENCE!</b> <input type="checkbox"/> Include a sentence on how your evidence supports your answer

**\*Remember capitalization and punctuation!\***

# Reading Workshop Units (ELA & SLA)

**Unit 1: Interpreting Characters:** In this unit, students will think deeply about their characters and learn essential skills such as making inferences, building theories, and learning life lessons by “walking in the shoes” of their characters. At first they will learn to live as a character and later they will step out of that character’s shoes and reflect and grow big ideas about that character. In order to help students develop their skills at predicting, envisioning, and reading with fluency we will first teach students to “wear the shoes of the characters and inhabit the world of the book.” Next, students will be encouraged to think deeply about their character's personality quirks and habits, by considering what a character holds close, the character’s complexities, and the way the secondary characters act as mirrors of main characters. In addition, they will learn to infer and develop ideas about character's traits, motivations, troubles, changes, and lessons. The third portion of this unit will shift children from inferring about characters to interpreting characters and growing theories about them. The goal for this portion of the unit is have children’s theories build in complexity. Finally, readers will think between books, comparing and contrasting characters that play similar roles across several books. In this unit, you’ll help students delve into complex texts and see significance in details. They’ll go beyond simple character traits to study the complexity of characters, seeing complications and flaws, and they’ll build on their ideas about characters in order to also explore the themes those characters advance. They’ll trace a theme through different parts of the story, and grow skills such as inference and interpretation. Setting their own goals, they’ll learn that with deliberate, goal-driven effort, they can form interpretations supported across a whole text and find meaning in recurring images, objects, and details. You will teach them to draw on their knowledge of fictional genres to read actively and intensely from the start. For a mystery, they’ll try to collect clues so they solve it. For a fantasy, they’ll expect to learn about a quest. Whatever the genre, this unit will help your students become more alert to even non-sequential story structures.

**Unit 2: Reading the Weather, Reading the World:** This unit engages students in the nonfiction reading work highlighted in every iteration of twenty-first-century standards. Students begin by reading far and wide in nonfiction texts, moving from easy texts to more challenging ones. You’ll teach them that when expository texts are organized into text structures such as problem/solution or compare-and-contrast, they can use their knowledge of structures to figure out what is and isn’t important,

becoming readers who, by distilling the main ideas and important points, are able to summarize. Later, children form research teams to delve into topics about extreme weather and natural disasters. You'll help teams to research a topic, reading across source material to learn about causes and effects of hurricanes, tornadoes, floods, and other disasters. You'll teach them to alter their reading when tackling dense scientific texts. You'll teach cross-text synthesis, channeling kids to think about how new information can add to or challenge prior knowledge. Then at the end of the unit, students consolidate and apply all they've learned as they explore a related, but different, topic. Students study authorial tone and craft, and practice close reading, comparing and contrasting, and evaluating sources to determine credibility.

**Unit 3: Reading History; The American Revolution:** The unit, Historical Fiction Tackling Complex Texts is complicated as it happens in a time and a place the reader has never inhabited, and the characters are entangled in historical and social issues which are related to real historical events. The goal of this unit is for students to emerge from the unit as knowledgeable readers who have learned how to build collective interpretations, know how to listen closely to each other as they read, and know how to carry ideas across time-both in their book club discussions and across more than one text. Important considerations include the fact that because this unit includes complex texts it is best for students reading levels P and above. In addition, due to the complicated nature of this genre it is recommended that this unit be conducted in book clubs. It will be important to talk up the fact that reading clubs provide group solidarity and allow each member to grow. During the first half of this unit, students will focus on deep comprehension and synthesis of complex story elements and working in book clubs. Next, students will focus on interpretation, and paying attention to perspective and point of view in addition to carrying ideas across a text. Finally, readers will enhance their thematic understanding by comparing both fiction and nonfiction texts. In the beginning of the unit readers will figure out the nature of the setting, including the ways people live, and who the characters are, as well as the relationship the characters have to historical tensions. In addition, students will continue to read deeply to analyze characters, setting, and events in their stories. They will also push themselves to determine the relationships between those elements by keeping track of multiple plot lines, unfamiliar characters, and of shifts in time and place. Furthermore, students will work towards being able to compare and contrast structure and analyze multiple accounts of the same event on numerous texts of the same time period. Then, they will work towards thinking about those complicated

themes and how they have recurred in human history and continue to be relevant today. The Historical Fiction unit will lend itself to lessons in social issues such as war and oppression and will teach lessons such as human endurance and social justice. It is important to note that students may need to see and feel the world of their stories, and could benefit from resources such as historical images, movie clips, and text books to help readers have a schema to envision the historical settings of their stories. Furthermore, it will be important to organize book clubs around one historical era so that students read several novels dealing with one era, and maintain their requisite reading volume in addition to building a familiarity with the historical era they are focusing on. One way to scaffold the understanding of the historical details is to have each book club start with at least one book that is a lower level than the reading levels of the club.

**Unit 4: Historical Fiction Book Clubs:** In this unit, students practice reading analytically, synthesizing complicated narratives, comparing and contrasting themes, and incorporating nonfiction research into their reading. This can be a beautiful intellectual journey, where the stories sweep children along with their exciting dramas. Each club reads several novels set within a historical time period, supported by researching nonfiction. At the beginning of this unit, readers analyze complicated settings and multiple plot lines, moving up levels of text complexity. They learn to consider how one part of a text is related to other parts, thinking and talking deeply about craft and structure. The next part of the unit shines a light on interpretation, helping students to engage in ambitious intellectual work and building on earlier work on interpreting characters. Later, readers think about how the information from nonfiction texts enlarges their historical knowledge, as well as their understanding of character's struggles, perspectives, and insights. Children learn to think across fiction and nonfiction, across story and history, across the books they have read, and across their own lives



# Writing Workshops Units (ELA & SLA)

## **Unit 1: The Arc of the Story** (*Realistic Fiction Narrative Writing*)

- A narrative means writing a story, and this year your child will be expected to use storytelling techniques, descriptive details, and clear sequences to tell compelling tales. Whether inspired by a favorite book, real events, or your child's imagination, your child's story should use dialogue, descriptive words, and transitional language. Look for precise language and sensory details that bring characters to life. Finally, your child should begin to keep pacing and sequence of events in mind — the events should unfold naturally, bringing the story to a natural conclusion. Are surprise endings okay? Sure... so long as the details and events plausibly lead there.

## **Unit 2: Boxes and Bullets: Personal and Persuasive Essays** (*Opinion Writing*)

- Under the Common Core Standards, written (and oral) opinions always need to be supported by evidence. Your child's persuasive writing should start by clearly introducing your child's opinion on a topic. To support her opinion, she'll need to present her argument, which is a list of reasons why she holds that opinion. Each of her reasons needs to be supported by facts and details (a.k.a. evidence). After presenting all of her research-supported reasons, she should close her argument with a concluding statement or paragraph that sums up how her evidence supports her opinion.

## **Unit 3: Bringing History to Life** (*Informational Writing*)

- The purpose of informative writing is to convey facts and ideas clearly. This year, your child's informative writing gets more organized — think formatting (like headers) and illustrations and even multimedia components to support specific points — all in an effort to make your child's writing more clear. To begin, your child should introduce her topic then use facts, definitions, details, quotes, examples, and other information to develop his topic into a few clear, well thought-out paragraphs. Your fourth grader should use advanced linking words (e.g. *also, another, for example, because*) to form compound and complex sentences connecting his research and ideas to the point he's making. Finally, to wrap it up, your child should have a conclusion — either a statement or, if necessary, a section labeled conclusion.

# El Dictado (ELA & SLA)

- ❑ **Writing, Speaking and Listening** skills
- ❑ Demonstrate **command of the conventions** of standard English **grammar** and usage when writing or speaking.
- ❑ Demonstrate command of the conventions of standard English **capitalization, punctuation, and spelling** when writing.
- ❑ Use **knowledge of language** and its conventions when **writing, speaking, reading, or listening**.
- ❑ Demonstrate **understanding of figurative language, word relationships, and nuances in word meanings**.

## Example of Dictado Schedule:

### Day 1:

1. Teacher dictates, students LISTEN
2. Teacher dicates, students REPEAT
3. Teacher dictates, students WRITE
4. Teacher writes the CORRECT dictation on the board while students **EDIT** their work

### Day 2: Repeat Day 1

### Day 3: **Assessment**

1. Teacher dictates, students LISTEN
2. Teacher dicates, students REPEAT
3. Teacher dictates, students WRITE
4. Teacher assesses using rubric