Interdisciplinary Unit

Second Grade Unit 1

20115-2016

Concept: Change

Essential Question: How and why do things change over time?

Deepening Questions:

How do communities change over time?

What are the properties of solids, liquids, and gases?

What causes changes in properties of matter?

What makes a character interesting?

What are some reasons characters might change how they think or act in a story?

What are the weather changes in my local community?

What are different major weather events around the world?

Are there ways people can predict weather changes?

Suggested Trade Book Resources

The Little House by Virginia Burton (Lexile: 890)

The House on Maple Street by Boon Pryor (Lexile: 650, GR: M)

The Oxcart Man by Donald Hall and Barbara Cooney (Lexile: 1130, GR: K)

Bartholomew and the Oobleck by Dr. Seuss (Lexile 500)

What Is the World Made Of? All About Solids, Liquids, and Gases by Kathleen Weidner Zoehfeld (Lexile: 560, GR: K)

From Wax to Crayon by Robin Nelson (Lexile: 370, GR: K)

Stellaluna by Janell Cannon (Lexile: 550, GR: N)

Frog and Toad All Year by Arthur Lobel (Lexile: 300, GR: K)

The Recess Queen by Alexis O’Neill (Lexile: 450)

The Cloud Dance by Thomas Locker (Lexile: 490, GR: N)

Moonbear’s Shadow by Frank Asch (Lexile: 580, GR: J)

What Makes a Shadow? by Clyde Robert Bulla (Lexile: 220, GR: L)

Scholastic News Science Reader: Plants for Grade 2

Flip, Float, Fly: Seeds on the Move By JoAnn Early Macken,(Lexile: 650)





Hook: Pablo Picasso

*The Old Guitarist* (blue period)

*Acrobate et jeune*(rose period)

*Three Musicians* (cubism)

Investigate why Picasso’s art (style, choice, selection) changed over the course of his life.

Pablo Picasso movie on brainpop: <https://jr.brainpop.com/artsandtechnology/art/pablopicasso/preview.weml>

Slideshow here: <http://www.slideshare.net/ShariSteinJackson/pablo-picasso-for-kindergarten>

SECTION 1:

Deepening Question:

How do communities change over time?

\*HMH Chapter 4, Lesson One

* + Review Past, Present Future
	+ What is a Community
		- Our School Community (establishing school rules and classroom rules)
		- Introduction to Communities
			* Community Web: Brainstorm ideas that students have about community
			* Video on Communities: http://schoolmediainteractive.com/view/object/video/CDFE7C029C4B81224D78F406576D5440
		- Urban, Suburban, Rural
			* Read *The Little House*  by Virginia Burton
			* Create a Flap Book: <http://www.thepolkadottedteacher.com/2011/11/pinnacle-unit-communities-of-today-and.html>
			* Country Mouse and City Mouse: <http://www.storyit.com/Classics/Stories/citycountrymouse.htm>
			* Venn Diagram of two of the types of communities
	+ What makes up a community?
		- Citizens in a Community
			* Good Citizenship
			* People in a Community
				+ “Who are the people in your neighborhood?” <http://learningtogive.org/lessons/unit60/lesson3.html>
				+ Create a class book about the members of a neighborhood, their role and responsibilities
				+ Make signs that would be helpful to your local community
		- Brief (will cover in Unit 4) Local Governments (mayor, town council, alderman, etc.)
			* Larry the Lion is Loose activity: http://s343660525.onlinehome.us/pdf/1.3.1%20ELM%20Larry%20the%20Lion%20is%20Loose%20simulation.pdf
		- Community Mural
	+ Review our Local Community
		- * Create a web showing their understanding of the local community
			* Map of the local community
			* Community Travel Brochure (attachment)
			* Heroes in a local community
	+ Our Community’s History
		- * + Book: The House on Maple Street
			* Create a timeline of local community history
			* Community Virtual Museum
	+ Community Change
		- What Causes Communities to Change?
			* TPT unit ($4): <https://www.teacherspayteachers.com/Product/Communities-and-How-They-Change-Over-Time-719051>
			* Read The Ox Cart Man
				+ Ox Cart order the year (attachment)
	+ PERFORMANCE TASK: Narrative: Write a friendly letter. Students will write a letter to someone in the community who they learned about and who has made a positive difference in their community.

SECTION 2: MATTER

States: Illinois, Minnesota, Indiana, Wisconsin (NOT: Missouri, Ohio) \*\*\*Michigan-only physical properties and mixtures

Deepening Questions:

What are the properties of solids, liquids, and gases?

What causes changes in properties of matter?

* + - \*NGSS Unit on Matter (EXCELLENT)
		- Ideas here: http://shenanigansinsecond.blogspot.com/2013/04/as-matter-of-fact-new-unit.html
* What is Matter
	+ Hook for unit: read Read Bartholomew and the Oobleck
	+ Oobleck experiment (attachment)
* Properties of Matter
	+ Observable Properties
		- Float or Sink activity (attachment)
	+ Describing Matter
		- Properties of Matter anchor chart: <http://allsmilesin2ndgrade.blogspot.com/2013/09/properties-of-matter-anchor-chart.html>
	+ States of Matter
		- States of Matter sort (attachment)
		- Everything matters game (attachment)
		- Hula Hoop activity-students stand in hula hoop to demonstrate molecules
* Solids
	+ Properties of solids
		- Comparing solids close reading passage (attachment)x
	+ Ways to measure solids
* Liquids
	+ Properties of Liquids
		- Liquids race activity (attachment)
	+ Ways to measure liquids
* Gases
	+ Properties of Gases
	+ Measuring Gases (wind and air)
* Comparing States of Matter
	+ - Matter Matching (attachment)
		- Objects in 3 different states: <http://fitkidsclub.blogspot.com/2012/06/clubhouse-truth-preschool-science.html>
		- Scroll down for ideas: <http://shenanigansinsecond.blogspot.com/2013/03/chicks-eggs-matter-more.html> (TPT Unit $12: https://www.teacherspayteachers.com/Product/As-a-Matter-of-Fact-A-Matter-Study-Including-11-Lessons-Engaging-Experiments-641340)
* Change in Matter
	+ Physical Changes vs. Chemical Changes
		- Colorful Crayons close reading passage (attachment)
		- How Crayons are Made: From Wax to Crayon by Robin Nelson, see the process here: http://www.sciencechannel.com/tv-shows/how-its-made/videos/how-its-made-how-crayons-are-made.htm.
		- Create your own crayons (melt crayons in the microwave: <http://thechaosandtheclutter.com/archives/ice-cube-tray-crayons/>) and attach to bookmark (It’s going to be a colorful year-attachment)
* Changes of State
	+ - Online games: <http://interactivesites.weebly.com/matter-chemical--physical.html>
		- Performance Task: Writing activity: STEM Activity: Create a superhero/heroine with special powers such as freezing, squeezing, melting, tearing, dissolving, etc. Then create a comic strip showcasing the unique power of the superhero/heroine. Include details of how the superhero/heroine uses the superpowers to change 3 different types of matter.
* Mixtures
	+ - Making mixtures (attachment)

SECTION 3: Character Traits and Character Change

States: all

Deepening Questions:

What makes a character interesting?

What are some reasons characters might change how they think or act in a story?

<https://www.teacherspayteachers.com/Product/Character-Traits-544978>

Stellaluna unit (TPT $7.50): https://www.teacherspayteachers.com/Product/Stellaluna-A-Common-Core-Book-Study-471747

Activities demonstrated here: http://aroundthekampfire.blogspot.com/2012/11/stellaluna-some-sugar-freebie.html

All About Bats close reading passage (attachment)

* Identifying Character
	+ Main Character(s)
	+ Secondary Characters
* Inside/Outside Character Traits
	+ - Get to Know Your Character (attachment)
		- Character Traits and Map
* Understanding Characters In and Across Texts
	+ Characters point of view
	+ Comparing Characters within texts
		- Read the book Frog and Toad All Year by Arthur Lobel (“The Garden” can be reserved for this unit’s section on Plants.)
		- Frog and Toad Character Traits sort (attachment)
		- \*possibly bring in information texts on Frogs and Toads (relate back to story)
	+ Comparing Characters across texts
* How Characters Change
	+ - Changes Over Time worksheet (attachment)
		- Read the book The Recess Queen by Alexi O’Neill. Complete Mean Jean character change paper (attachment)
		- A Bad Case of the Stripes: <http://ayearofmanyfirsts.blogspot.com/2013/01/a-bad-case-of-stripes-book-nook.html>
* My Character Traits (looking at who I am and who I want to be)
	+ - Character Trait Frames: <http://adventuresofroom129.blogspot.com/search?updated-max=2011-05-17T17:00:00-07:00&max-results=7>

SECTION 4: Weather Changes

States: Minnesota, Indiana, Ohio, Wisconsin (Michigan-precipitation and states of matter) NOT: Illinois, Missouri

Deepening Questions:

What are the weather changes in my local community?

What are different major weather events around the world?

Are there ways people can predict weather changes?

* General Weather Terms
	+ Temperature
	+ Precipitation (Types of Precipitation-rain, snow, hail)
	+ Wind
		- Learning about Weather with QR codes: http://soaringthroughsecond.blogspot.com/2014/04/learning-all-about-weather-with-qr.html?utm\_source=feedburner&utm\_medium=email&utm\_campaign=Feed:+SoaringThroughSecondGrade+(Soaring+Through+Second+Grade)
* Tools for Measuring Weather
	+ Thermometer
	+ Rain Gauge
	+ Anemometer
	+ Weather Vane
		- Make a weather vane: http://buggyforsecondgrade.blogspot.com/2012/04/weather.html
* The Water Cycle
	+ States of the Water Cycle
		- Water Cycle cut and paste (attachment)
	+ Illustrating and Describing the Water Cycle
* Changes in Weather
	+ - Scholastic Weather watch: <http://teacher.scholastic.com/activities/wwatch/>
	+ Types of Clouds
		- Read the book The Cloud Dance by Thomas Locker
		- Clouds in Shaving Cream: <http://collaborationcuties.blogspot.com/2012/10/fun-with-weather-and-clouds.html>
		- Types of Clouds graphic organizer (attachment)
		- What are Clouds made of (attachment)
	+ Severe Weather (thunderstorms, tornadoes)
		- After the Storm writing activities (attachment)
		- Rainbow close reading passage (attachment)
	+ Predicting Storms
		- Meteorologist activities (attachment)
* Four Seasons
	+ Change in seasons

Section 5: Changes in the Sky

States: Indiana, Wisconsin (NOT: Illinois, Michigan, Minnesota, Missouri, Ohio

* What Causes Day and Night
	+ Rotate
	+ Axis
* Why Seasons Happen
	+ Orbit
* Shadows
	+ Measuring Shadows
		- Make a sun dial: http://munchkinsandmayhem.blogspot.com/2013/03/paper-plate-sun-dial.html?m=1
* How the Moon moves through the sky
	+ - Seven day moon tracker (attachment)
	+ Shape of the Moon
		- Moon phases mini-book (attachment)

Section 6: Plants

States- Illinois, Michigan, Minnesota, Indiana (NOT: Missouri)

(Ohio-only needs of living things)

Deepening Question:

How do plants grow and change?

* + - Plants and Seeds (TPT $10): <https://www.teacherspayteachers.com/Product/Life-Cycle-of-Plants-Thematic-Unit-Interactive-Science-Notebook-or-Portfolio-1141940>
* What Living Things Need
	+ - What Do Plants Need? Experiment (attachment)
	+ How Plants Make Food
* Plants Make New Plants
	+ Parts of a Plant
		- Parts of a Plant power point (attachment)
		- Parts of a plant science notebook (attachment)
		- Seeds Power Point (attachment)
	+ Life Cycle of a Plant
		- Fast Plants-website that offers plants for sale that grow in under a month: <http://www.fastplants.org/index.php>
		- \*\*\*STEM: (Measurement will be in Unit 3 but can be moved here.)
		- Observing Plant Growth
			* Plant observation daily log (attachment)
	+ Dispersing Seeds
		- Read the book Miss Rumphius by Babara Cooney (free at wegivebooks.org)
			* Response Sheet-“How would you make the world more beautiful?” (attachment)
		- Seeds on the Move: http://betterlesson.com/lesson/621839/seeds-on-the-move-interactions-and-energy
		- Website demonstrating different ways: <http://www2.bgfl.org/bgfl2/custom/resources_ftp/client_ftp/ks2/science/plants_pt2/dispersal.htm>
	+ Inherited Traits
	+ How do plants survive
* Different Types of Plants
* People and Plants
	+ Plants We Use (food, clothing)
	+ Plants and Healthy Air
* Plant Fossils

Section 7: Math Operation Strategies

States: all

Deepening Question:

How does addition and subtraction change the value of a number?

Why do I sometime need to change my additional/subtraction strategy?

How does recognizing number patterns help me to identifying the right problem solving strategy?

* My Math: Chapter 1
	+ Addition properties
	+ Count on to Add
	+ Double and Near Doubles
		- Slides and numbers adding doubles (attachment)
	+ Make 10
	+ Add three numbers
	+ Write a number sentence (problem solving strategy)
	+ Count back to subtract
	+ Subtract all and subtract zero
	+ Use double to subtract
	+ Relate addition and subtraction
	+ Missing addends
	+ Fact families
	+ Two-step word problems
* My Math: Chapter 2- Number Patterns
	+ Skip count on a hundreds chart
	+ Skip count by 2’s, 5’s, and 10s
		- * Skip Counting (attachment)
	+ Find a pattern (problem solving strategy)
	+ Repeated addition
	+ Repeated addition with arrays
	+ Even and odd numbers
	+ Sums of equal numbers

Section 8: Adding and Subtracting 2-digit numbers

\*This section may be extended into unit 2.

States: all

* Review place value (not in My Math but needed to understand chapters)
	+ Identifying ones and tens
	+ Models of numbers with ones and tens
* My Math: Chapter 3-Add Two-Digit Numbers
	+ - * Spin Me Round double digit addition (attachment)\_
	+ Take apart tens to add
	+ Regroup ones as tens
	+ Add to a two-digit number
	+ Add two-digit numbers
	+ Rewrite two-digit addition
	+ Add three and four two-digit numbers
	+ Make a model (problem solving strategy)
* My Math: Chapter 4-Subtract Two-Digit Numbers
	+ Two-digit fact families
	+ Tke apart tens to subtract
	+ Regroup a ten as ones
	+ Subtract from a two-digit number
	+ Subtract two-digit numbers
	+ Rewrite two-digit subtraction
	+ Check subtraction
	+ Write a number sentence (problem solving strategy)
	+ Two-step word problems