STANDARD 8: Learners benefit from a formal structure of within-school and extracurricular opportunities to extend STEM learning.

Kindergarten Seasons and Weather Unit

Topic
Knowledge 8: Seasons and Weathers
Power Question: What's the Weather Like?
Power Standard: **With prompting and support, ask and answer questions about unknown words in a text.** ● Demonstrate understanding of key vocabulary
Common Assessment: Students will complete a word work activity that focuses on the core vocabulary for each lesson.
Extension Activity: Students will use core vocabulary words in a journal writing prompt.
Next: Create a rubric for the assessment that supports the chosen standards.

Kindergarten Kings and Queens Unit

Topic
Knowledge 7: "Kings and Queens"
Power Question: What are Kings and Queens?
Power Standard: **Key Ideas and Details 2. With prompting and support, retell familiar stories, using key details.** ● Describe the characters, setting, and plot of a story ● Sequence story events

Standard 8 Evidence

• Draw and write events from stories
Common Assessment: Students will create a story map using key details (setting, characters, problem, solution). Students will respond to a story with journal writing. A prompt will be provided and students will need to complete the prompt using key details from the story.
Extension Activity: Students will create a graphic organizer (Venn Diagram) that compares and contracts royal families and non-royal families.
Next: Create a rubric for both assessments that support the chosen standards.

Rubric for story map:

🙂I was able to identify the setting correctly.
😞I was unable to identify the setting correctly.

🙂I was able to identify the characters correctly.
😞I was unable to identify the characters correctly.

🙂I was able to identify the problem correctly.
😞I was unable to identify the problem correctly.

🙂I was able to identify the solution correctly.
😞I was unable to identify the solution correctly.

Rubric for journal writing:

🙂I start with a capital letter.
😞I did not start with a capital letter.

🙂I left finger spaces between my words.
😞I did not leave finger spaces between my words.

🙂I end my sentence with correct punctuation.

Standard 8 Evidence

😞I did not end my sentence with correct punctuation.

Kindergarten Curriculum Map
https://docs.google.com/document/d/1i7CW69P8qsi6weGIlPREm0x4awoFx8-29JfTAhgLTNI/edit?usp=sharing

1st Grade Early World Civilizations Planning

Topic
Knowledge 4: "Early World Civilizations"
Power Question: What makes a Civilization?
Power Standards: Answer questions that Require making interpretations, judgments, or giving opinions, including answering why questions that require recognizing cause/effect relationships and describing the connection between different pieces of information or illustrations in a text
Common Assessment: **Civilization Model:** Students will work to create a civilization by using material learned. Students will show items included to make up a civilization ex. Written language, religion, technologies, etc. **Civilization Writing:** Students will complete a writing telling the different areas of their civilization.
Power Standard: Demonstrate understanding of informational read-alouds of appropriate complexity for Grade 1
Extension Activity: Hanging of Gardens Lesson - Shared by Mrs. Inil

Next:
Create a Rubric for both assessments that support the chosen standards.

Project (hanging of Garden Model)

Excellent- all required elements are present and additional element that add to their report
Good- all elements are present
Satisfactory - other required element is missing
Needs Improvement - several required elements are missing

WRITING
Excellent- One or fewer error in spelling,punctuation, grammar
Good- two or three errors in spelling, punctuation, grammar

1st Grade Curriculum Map
https://docs.google.com/document/d/1iU0hiMr_138zvJeumQz6Q3nlSl-VHfS5/edit?usp=sharing&ouid=113965103178237940934&rtpof=true&sd=true

2nd Grade Pollinators Unit

Standard 8 Evidence

Standard

- 2-LS2-2.
Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.*

-K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

-K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

-K-2-ETS1-3. A,

-CCSS.ELA-LITERACY.RI.2.10

By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

-CCSS.ELA-LITERACY.RI.2.7

Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

-CCSS.ELA-LITERACY.RI.2.6

Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

-CCSS.ELA-LITERACY.RI.2.5

Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.

Learning Target	DOK Level	Instruction	Assessment
I can use headings, captions, a glossary, a table of contents, and the index to locate important facts and information in a nonfiction text.	1	-ROYO -What If There Were No Bees?	End of unit comprehension assessment
I can explain the author's purpose or meaning of a nonfiction text.	3	-What If There Were No Bees? -How Many Flowers Can a Bee Pollinate? (Wonderopolis article) -Why Are Pollinators	End of unit comprehension assessment

		Important? (ReadWorks article)	
I can tell how pictures and diagrams are tools to help me understand what I have read.	1	-What If There Were No Bees?	End of unit comprehension assessment
I can read and answer questions correctly from a nonfiction 2nd grade text.	2	-What If There Were No Bees? -How Many Flowers Can a Bee Pollinate? (Wonderopolis article) -Why Are Pollinators Important? (ReadWorks article)	End of unit comprehension assessment
I can ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.	3	Pollinator Engineering Design Challenge	EDP with pollinator
I can develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	3	Pollinator Engineering Design Challenge	EDP with pollinator
I can analyze data from tests of two objects.	4	Pollinator Engineering Design Challenge	Reflection and improvement of pollinator (part of EDP)
Academic Vocabulary Pollinator, pollinate/pollination, pollen, insect, nectar, protein, nutrients, attract, disperse,, ecosystem, extinct, species,			

2nd Grade Iditarod Unit

Standard

CCSS.ELA-LITERACY.RI.2.3

Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

CCSS.ELA-LITERACY.L.2.5.A

Identify real-life connections between words and their use (e.g., *describe foods that are spicy or juicy*).

CCSS.ELA-LITERACY.RI.2.5

Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.

CSS.ELA-LITERACY.W.2.2

Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

K-2-ETS1-2 Engineering Design

Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

K-2-ETS1-1 Engineering Design

Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

Learning Target	DOK Level	Instruction	Assessment
I can tell how two events in a historical text are related.	2		
I can use domain-specific words to describe things I know about.	2		K-W-L
I can write facts about a topic, and include a closing sentence.	2		"All About the Iditarod" writing activity.
I can use text features to locate	1		Observation of text feature

important facts and information in a nonfiction text.			identification. (Formative)
Academic Vocabulary Iditarod Trail, musher, adaptations, serum, outbreak, diphtheria, relay, dog team, lead dog, characteristics, checkpoint, route			

Directions: Each team member brings sample questions to the team meeting. The team selects the questions that best align with the essential **(boulder)** standards. Write questions or assessment tasks for each learning target. Create five or ten-question common formative assessments for easy grading. At the beginning of this learning, we recommend picking five questions to assess the essential standard. Copy form for additional learning targets.		
Learning Target: I can tell how two events in a historical text are related.		
Iditarod timeline	K-W-L chart	Turn and talk
Pick a side	White boards	Musher map
Learning Target: I can use domain-specific words to describe things I know about.		
Draw and label a diagram of a husky with its adaptations.	K-W-L chart	Turn and talk

Standard 8 Evidence

Stand up/Sit down	Thumbs up/thumbs down	Whisper and throw

Iditarod Mini-Unit Plan 2024

Day 1 Monday Feb. 26

1. Sing/watch Iditarod Trail Song by Hobo Jim
2. Begin K-W-L chart to be added to all week long
3. Watch 3 min. Video: What is the Iditarod?

Day 2 Tuesday Feb. 27

1. Sing/watch Iditarod Trail Song by Hobo Jim
2. Read article: All About the Iditarod Dogsled Race (on google slides or print out article)
3. Add to K-W-L chart
4. Choose your Musher; complete “My Musher” page

Day 3 Wednesday Feb. 28

1. Sing/watch Iditarod Trail Song by Hobo Jim
2. Watch: NPS video - The Science of Sled Dogs with Ranger Jan (30 min, add time for pausing the video for discussion questions. Plan for about 40 minutes.)
3. Watch: What do sled dogs eat? (2 ½ min)
4. Draw a husky (arthub for kids video)
5. Label husky with sled dog adaptations
6. Add to K-W-L chart

Day 4 Thursday Feb. 29

1. Sing/watch Iditarod Trail Song by Hobo Jim
2. Read: Iditarod Trail Brief History
3. Complete class timeline of Iditarod history
4. Watch: What makes dogs and mushers great partners? (2 min)
5. Read “A Sled Dog Life”
6. Add to K-W-L chart

Day 5 Friday March 1

1. *Spelling test
2. Sing/watch Iditarod Trail Song by Hobo Jim
3. Read “The Most Famous Dog Sled Race”
4. Comprehension assessment
5. Finish K-W-L chart

Day 6 Monday March 4

1. Sing/watch Iditarod Trail Song by Hobo Jim

Standard 8 Evidence

2. Writing: use notes from K-W-L chart to make bubble map of “All About the Iditarod” (use white printer paper - students draw their own bubble maps)
3. Check musher status/mark race maps

Day 7 Tuesday March 5

1. Sing/watch Iditarod Trail Song by Hobo Jim
2. Write: use our bubble maps to write drafts of “All About the Iditarod”
3. Ask, Imagine, Plan: Dog Sled Challenge
4. Check Musher status; mark our race maps

Day 8 Wednesday March 6

1. Sing/watch Iditarod Trail Song by Hobo Jim
2. Write: use our drafts to write final drafts of “All About the Iditarod”
3. Build, Test, Improve: Dog Sled Challenge
4. Check Musher status; mark our race maps

Read-Alouds for any day:
Akiak
Sled Dogs Run
If You Were a Kid at the Iditarod
Mushkid
Kamik

Other good videos:
Breakfast of Champions - Dallas Seavey 3 ½ min what the dogs get fed
What I Bring on My Sled for the Iditarod - Dallas Seavey 6 minutes

2nd Grade Curriculum Map
https://docs.google.com/document/d/1HCx0nv4kfT3vJZUBNUpmarDv1tJu8GHO6QCdr9ND8Lg/edit?usp=sharing

3rd Grade Space Unit
INTRO TO NEW UNIT: Astronauts reading from space?? https://storytimefromspace.com/

- Unit 7 power standards

Cause and effect

- Gravity

Compare and contrast

- Two planets
- Paragraph starters
- Fact starters

Understanding of key vocabulary

Research a planet

Standard 8 Evidence

Storytime from space

Formative assessment:

- Activity pages
- Compare and contrast sheet

3rd Grade Curriculum Map
https://docs.google.com/document/d/1_AEn17LSz71W7b9s5Q98smZdwfLLizEzzyx5rw_U6DY/edit?usp=sharing

4thGrade Watershed Unit

1. LESSON ONE Students will sketch landscape and watershed characteristics including basin, canyon, creek, valley and any landform. ***Students will label the lines, spaces on a music staff using the music Alphabet.***	2.	3. LESSON TWO Students will create a model of a watershed to simulate the flow of water through a landscape.
4. Formative Assessment Students match vocabulary from the previous lesson.	5. LESSON THREE How does water flow through our community? ***How does music flow through time?*** ***How does music flow on the music staff?***	6. Formative assessment Exit Ticket Answer Questions How does water move in, through and out of a watershed?
7. LESSON FOUR Students will connect the water cycle to the watershed.	8. Formative Assessment Exit ticket Where do residents of Anchorage get their water?	9. Lesson 5 Water Everywhere Students will explain how organisms interact with water, and why water is an important natural resource. FA Students will make a connection web(graphic organizer) showing how

		plants, animals and the water cycle interact. ***Music-Students will create soundscapes w/ voices and instruments based on their own ideas to create thunderstorms.***
10.	11. Lesson 6 Distribution of water on earth Students will demonstrate the distribution of water on Earth by removing the following quantities of water and pouring them into another container.(see Core.18) FA Describe and graph the amounts and percentages of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth ***Music-Students use mason jars/water to make scales.***	12. Pre-teach - walk through assessment to cover relative questions and formats
13. Summative assessment What is a watershed? Can you name three examples of water bodies that are part of a watershed? Why are watersheds important for the environment? How does pollution in one part of the watershed	14. Review Summative assessment Discuss	15. Reteach Extend

affect the rest of the watershed? How do human activities affect watersheds? What role do plants and trees play in a watershed? Can you give an example of a local watershed in your area? How can we protect and take care of watersheds? How can we conserve water in our daily lives to protect the local watershed? What are some animals that depend on healthy watersheds for their survival?		

4th Grade Curriculum Map
https://docs.google.com/document/d/1njGPby1YB5sOphDO13ljPvPbJu4ClUUfCJLxmEUXzul/edit?usp=sharing

4th Grade Watershed Unit

Science & Engineering Practice	Disciplinary Core Idea	Cross Cutting Concept
Developing and Using Models Use a model to test cause and effect relationships or interactions concerning the functioning of a natural system	**ESS2.B Plate Tectonics and Large-Scale System Interactions** Locations of mountain ranges occur in patterns. Maps can help locate the different land and water features of Earth. (adapted)	**Systems and System Models** A system can be described in terms of its components and their interactions.

Boulder - A system can be described by its components and their interactions.

What is a Landform?
What is a Watershed?
What is a Model?
How many lines are on a music staff?
How many spaces are in between lines:

LESSON ONE: Students will sketch landscape and watershed characteristics including basin, canyon, creek, valley and any landform.

Standard 8 Evidence

Students will label the lines, spaces on a music staff using the music Alphabet.

LESSON TWO: Students will create a mode of a watershed to simulate the flow of water through a landscape.

Formative Assessment: Students match vocabulary from the previous lesson.

LESSON THREE: How does water flow through our community?
How does music flow through time?
How does music flow on the music staff?

Formative assessment: Exit Ticket, Answer Questions, How does water move in, through and out of a watershed?

LESSON FOUR: Students will connect the water cycle to the watershed.

Formative Assessment: Exit ticket, Where do residents of Anchorage get their water?

Lesson 5 Water Everywhere: Students will explain how organisms interact with water, and why water is an important natural resource.

Formative Assessment: Students will make a connection web(graphic organizer) showing how plants, animals and the water cycle interact.

Music-Students will create soundscapes w/ voices and instruments based on their own ideas to create thunderstorms.

Lesson 6 Distribution of water on earth: Students will demonstrate the distribution of water on Earth by removing the following quantities of water and pouring them into another container.(see Core.18)

Formative Assessment: Describe and graph the amounts and percentages of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.

Music-Students use mason jars/water to make scales.

Summative assessment
What is a watershed?
Can you name three examples of water bodies that are part of a watershed?
Why are watersheds important for the environment?
How does pollution in one part of the watershed affect the rest of the watershed?
How do human activities affect watersheds?
What role do plants and trees play in a watershed?
Can you give an example of a local watershed in your area?
How can we protect and take care of watersheds?
How can we conserve water in our daily lives to protect the local watershed?
What are some animals that depend on healthy watersheds for their survival?

Standard 8 Evidence

Plant Unit: Planning Chart

Day 1: Landscapes and watershed characteristics

Lines and spaces Bingo

Day 2: Watershed model

Lines and spaces Bingo

Day 3: How does water flow through our community?

How does music flow through time?

Day 4: Water cycle/Watershed making connections

Recorder Lessons making connections to lines and spaces

Day 5: Organism interactions with water

Recorder Lessons interaction with actual recorder, teach first note

Day 6: Distribution of water on earth

Recorder Lessons interaction with actual recorder, teach second note and third note

Days 7, 8, 9,10 Summative assessment as a grade level. Walk through test questions, or similar questions. Discussions, continued note taking. Summative assessment. Review assessment. Reteach and/or game online https://www.abcya.com/games/hydro_logic

Next steps - Soil
Essential Standard still - systems and their components
Core: 20 - Soil Examination

Essential Question(s)
How does water and soil interact and move through a watershed?

Lesson Overview
Students will observe and document characteristics of different soil types. Students will predict soil porosity of each sample.

Outcome/Formative Assessment
Students will predict what will happen to water if we pour water onto these different soils types.

CORE.21: Soil Soakers Test

Lesson Overview
Students test different soil types, moss, and peat wetlands to compare drainage, porosity, and water retention.

Essential Question(s)
How does water and soil interact and move through a watershed?

Outcomes and Assessment:
Students perform a controlled experiment to collect evidence to answer the question: can different soils hold different amounts of water?

CORE.22: Soil Soakers Test Graph Results

Lesson Overview
Students learn that soil porosity and water retention determine water storage capacity of the particular material within the watershed. They summarize their results in a bar graph and rank the “ground” in different types of places in terms of relative capacity to retain and store water.

Essential Question(s)
How does water and soil interact and move through a watershed?

Outcomes and Assessment:
Students graph the results of the soil soaker test from CORE.21 lesson.

Combine Core 21 and Core 22 - Students conduct their experiments and document their results all at the same time.

CORE.23: Soil Soakers Reflect

Lesson Overview
Students summarize and interpret the results of the soil soaker test.

Essential Question(s)
How does water and soil interact and move through a watershed?

Outcomes and Assessment:
Students summarize and interpret the results of the soil soaker test.

Summative Assessment for Soil

1. What is soil erosion, and how does it affect watersheds?
2. How does healthy soil help prevent pollution in watersheds?
3. What are some ways in which human activities can harm soil in watersheds?
4. How does soil act like a sponge in watersheds?
5. What are the layers of soil called, and how do they contribute to a healthy watershed?
6. Why is it important to plant trees and vegetation in watersheds?
7. How do earthworms and other organisms help improve soil health in watersheds?

8. What can we do to prevent soil erosion in our local watersheds?
9. How does soil filtration help clean water in watersheds?
10. Can you explain the concept of a watershed and its connection to soil in simple terms?

5th Grade Edible Science
https://docs.google.com/document/d/1PIT3IXosuACkI9A3MYWyosx7-gEeQxBv4lW7jz7TaLw/edit?usp=sharing

5th Grade Survivor Week
https://forms.gle/Nnp5paZG5iCPHFzG9

Grade Curriculum Map
https://docs.google.com/document/d/1Nu4j8tg0_eAuLkO8cx0LFtmuoOwcP1TOMuAG_GTq3vo/edit?usp=sharing

6th Grade Curriculum Map
https://docs.google.com/document/d/1tm02K2ILHpy72KsKiQFuMjJZ4Qxp359z2UiXLtcCHLI/edit?usp=sharing

Standard 8 Evidence