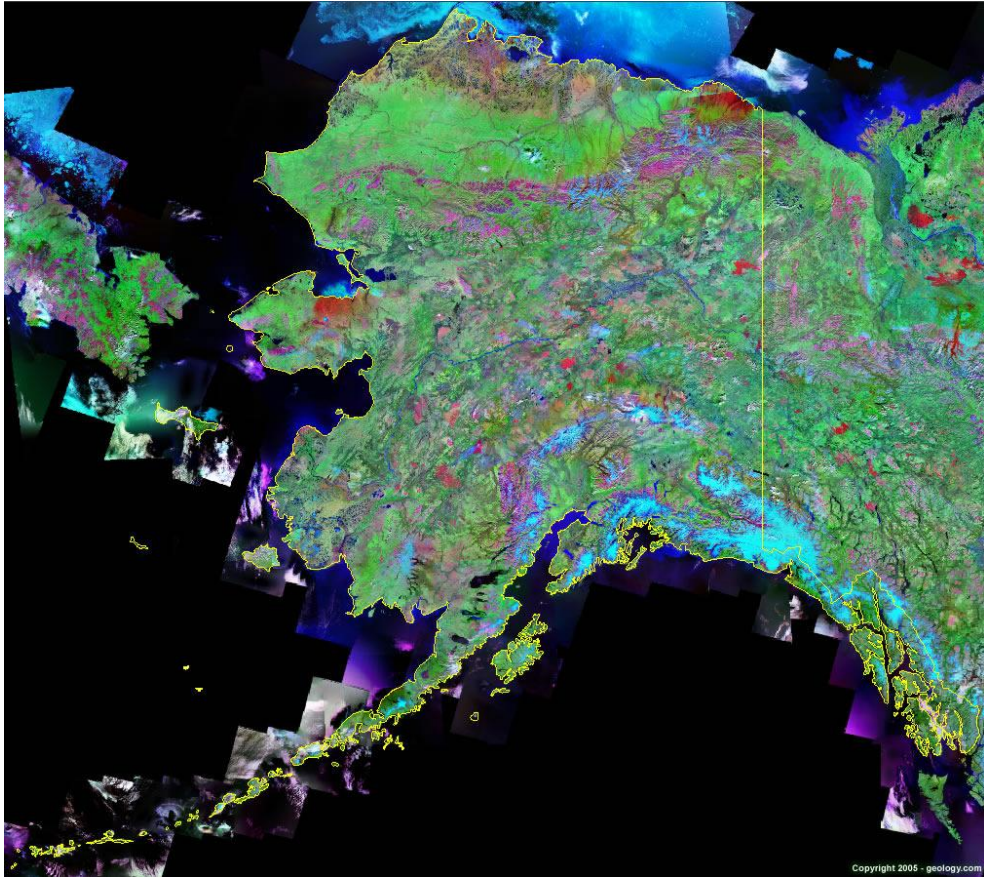


ALASKA



U N I T P L A N

S O C I A L S T U D I E S

4TH G R A D E

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Lessons:

Alaska? - Yea or Nay (Social Studies)

24

Students will collect information about the benefits and challenges caused by the acquisition of Alaska for the United States and debate the issues of purchasing Alaska from Russia in the 19th century. Students will be assessed on their group's arguments using a rubric. On the SMART Board the teacher will create a list of ideas from the students about their prior knowledge of Alaska. Students could use the SMART board to help them with their debate.

Debate Presenters Sheet

29

Debate Rules Sheet

30

Alaskan Theme Book (Social Studies)

31

Students will be given an Alaskan Themed Book to read throughout the unit. They will be given time set apart each day and will participate in responsory reading. Students will be assessed in the form of a journal. As students create their journal, the teacher could draw and model her journal on the SMART board making a book adding a new page every day.

Book Table List

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Klondike Fever (Social Studies)38

Students will research the Klondike Goldrush. They will present a living historical interpretation of Klondike goldseeker and describe the successes and hardships of the goldrush. Students will be assessed on either the information presented along with the creativity in their presentation, or by a short paper presenting the information about their specific gold seeker. Students can use the computer to help research their specific person.

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Klondike Fever Sheet of Characters43
Klondike Fever Research Checkout Sheet43
Klondike Living Wax Museum Instruction Sheet45
Role/Event Sign-up Sheet47

We're Not in Kansas Anymore (Social Studies)48

Students will work in groups and research a particular aspect of modern Alaska. The subjects researched will be; school, work, transportation, sports/recreation, and entertainment. The students will be assessed by their role-play presented to class displaying the research they found. Students can use the computer for research, but they could also create a powerpoint presentation discussing the differences from Kansas to Alaska.

Oil Madness (Social Studies)53

Students will understand the importance of the resource of oil deposits in Alaska. The simulation of an oil spill and clean up will help the students understand the impact of this type of disaster. Newspaper articles will help the students understand the ramifications of an oil spill that took place before they were born and the clean up that is still going on to this day. The students will be assessed on their group cooperation in cleaning up the spill and the findings they record. Use the SMART board to create a pie chart to help show oil spread out, and create a list together after the lesson to identify various consequences of oil spills.

Day 1: Slick Sea Spills56
Day 2: Could it Have Been Prevented?61

Twinkle, Twinkle Big Bright Lights (Social Studies)64

Through participating in the game Twister students will acknowledge the different types of atmospheric gases that make up the Aurora Borealis phenomenon. They will also learn about atmospheric layers. Students will be assessed by the song or poem they create, to the tune of a familiar nursery rhyme about the Aurora Borealis. The teacher uses a powerpoint presentation to instruct what the Aurora Borealis is and the students could also use it to create their poem/song.

Day 1: Aurora WHAT?66

Day 2: Twinkle, Twinkle, Big Bright Lights72

Task74

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Rubric- Northern Lights Poem/Song76

Reflection Paper77

Unit Plan



Unit Plan Rationale

I chose Alaska as a unit topic because I felt it is important for students to understand that Alaska is an integral part of the United States. An Alaskan Unit addresses social studies goals because it's important for students to respect the differences in Alaskan culture and our own. Diversity should be an integral part behind every unit of study to encourage the students to become well-rounded citizens in a democratic society. It is also important for students to know why the gold rush took place and why Alaska became a state. This unit would be taught during the spring of the year around March.

Demographics

Students are from a small town in rural Kansas. The class consists of fourteen boys and ten girls. Of those students 3 are ELL students, 3 SPED, 8 on MTSS, and 10 on grade level. 75% of the students receive free/reduced lunch. As a class they enjoy sharing their work, working together in small learning groups, and being safe at school.

Modifications

All modifications are made within the lesson plan at the end of each lesson it states accommodations or adaptations to assist students.

State Standards

The following are the main state standards that show what the unit will address and how the unit will address these standards.

Social Studies State Standards

- **History Standard:** The student uses a working knowledge and understanding of significant individuals, groups, ideas, events, eras, and developments in the history of Kansas, the United States, and the world, utilizing essential analytical and research skills.

Benchmark 4: The student engages in historical thinking skills. In lesson one and three students will be researching historical figures of Alaska.

- **Civics-Government Standard:** The student uses a working knowledge and understanding of governmental systems of Kansas and the United States and other nations with an emphasis on the United States Constitution, the necessity for the rule of law, the civic values of the American people, and the rights, privileges, and responsibilities of becoming active participants in our representative democracy.

Benchmark 2: The student understands the shared ideals and diversity of American society and political culture.

In lessons two and four students relate to citizens of Alaska and recognize how both states contribute to our country.

- **Economics Standard:** The student uses a working knowledge and understanding of major economic concepts, issues, and systems, applying decision-making skills as a consumer, producer, saver, investor, and citizen of Kansas and the United States living in an interdependent world.

Benchmark 1: The student understands how limited resources require choices.

Benchmark 3: The student analyzes how different incentives, economic systems and their institutions, and local, national, and international interdependence affect people.

In lessons two, four, and five students explore the impact people have had on the economy. The students identify natural resources that are available in Alaska and how the extraction of these resources may effect the environment.

- **Geography:** The student uses a working knowledge and understanding of the spatial organization of Earth's surface and relationships between peoples and places and physical and human environments in order to explain the interactions that occur in Kansas, the United States, and in our world.

Benchmark 1: Geographic Tools and Location: The student uses maps, graphic representations, tools, and technologies to locate, use, and present information about people, places, and environments.

Benchmark 2: Places and Regions: The student analyzes the human and physical features that give places and regions their distinctive character.

Benchmark 3: Physical Systems: The student understands Earth's physical systems and how physical processes shape Earth's surface.

Benchmark 4: Human Systems: The student understands how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict.

Benchmark 5: Human-Environment Interactions: The student understands the effects of interaction between human and physical systems.

In lessons two, three, five, and six students recognize how Alaska was formed and the citizens of Alaska add to the uniqueness of this state.

Language Arts State Standards:

- **Literature:** The student responds to a variety of text.
Benchmark 1: The student uses literary concepts to interpret and respond to text.

- identifies and describes *characters'* physical traits, personality traits, and feelings, and explains reasons for *characters'* actions and the consequences of those actions.

In lesson one students research and identify feelings and emotions of citizens of Alaska as Alaska became a state.

- **Literature: The student responds to a variety of text.**
Benchmark 2: The student understands the significance of literature and its contributions to human understanding and culture.
 - describes aspects of history and culture found in works of literature.
 - compares and contrasts various languages, traditions, and cultures found in literature.
 - makes connections between specific aspects of literature from a variety of cultures and personal experiences.
 - describes aspects of history and culture found in works of literature.

In lesson two, three, four, and six students through reading will identify history, connections from text to self, and compare information researched.

- **Reading: The student reads and comprehends text across the curriculum.**
Benchmark 3: The student expands vocabulary.
 - uses a dictionary or a glossary to determine an appropriate definition of a word or uses a thesaurus to expand vocabulary.
 - determines the meaning of words or phrases by using context clues
 - determines meaning of words through knowledge of word structure**Benchmark 4: The student comprehends a variety of texts**
 - understands the purpose of text features
 - uses prior knowledge and content to make, revise, and confirm predictions.

- generates and responds logically to literal, inferential, and *critical thinking* questions before, during, and after reading the text.
- compares and contrasts information

In all the lessons students will be expanding and growing in vocabulary, using prior knowledge, use critical thinking and compare and contrast information gained.

Technology

Technology is used throughout the unit from powerpoint lessons to taking their pre and post test via clickers on the SMART Board. Students will use computers to help facilitate research and type up information. Students and the teacher will be able to create powerpoint presentations and use the SMART board to demonstrate their ideas. To be more specific for technology for each lesson look at the table of contents.

SCOPE AND SEQUENCE

Objectives: <small>BY THE END OF THIS LESSON STUDENTS WILL:</small>	Vocabulary:	Time
Lesson #1: ALASKA? YEA or NAY		
<ol style="list-style-type: none"> 1. Students will show their understanding that Alaska has presented both benefits for and challenges to the United States. 2. Students will apply their knowledge during a debate as to why Americans were not of one mind on the purchase of Alaska. 	<ul style="list-style-type: none"> • Craggy • Indigenous • Ominous • Prospectors 	57 Minutes
Lesson #2: THE YEAR OF MISS AGNES		
<ol style="list-style-type: none"> 1. Students will apply listening skills while the instructor performs daily read alouds. 2. Students will show their comprehension of <i>The Year of Miss Agnes</i> by responding to reading prompts provided in class in their journals. 3. Students will demonstrate their understanding of the differences/similarities and advantages/disadvantages of living in Alaska through discussion and debate. 	<ul style="list-style-type: none"> • Trap line • Athabaskan • Remote • Braille • Kk'oontseek (Salmon Strips) 	45 Minutes Daily

Objectives: <small>BY THE END OF THIS LESSON STUDENTS WILL:</small>	Vocabulary:	Time
<h2>Lesson #3: KLONDIKE FEVER</h2>		
<ol style="list-style-type: none"> 1. Students will research the different roles involved in the Klondike Gold Rush. 2. Students will appreciate the survival techniques the Klondike population had to use. 3. Students will present their knowledge of these roles in a living museum to different classes. 	<ul style="list-style-type: none"> • Klondike • Stampeders • Golden Stairs • Skagway • Dawson's City • Chilkoot Pass 	150 Minutes
<h2>Lesson #4: WE'RE NOT IN KANSAS ANYMORE</h2>		
<ol style="list-style-type: none"> 1. Students will research and list aspects of the culture that they are assigned as a group. 2. Students will be able to depict their research through a role-play to the other students. 	<ul style="list-style-type: none"> • Stereotype • Iditarod • Culture • Village • Aleuts • Athabascans • Inupiat Eskimos • Tlingit, Haida and Tsimshians • Yupik 	115 Minutes

<p style="text-align: center;">Objectives:</p> <p style="text-align: center;">BY THE END OF THIS LESSON STUDENTS WILL:</p>	<p style="text-align: center;">Vocabulary:</p>	<p style="text-align: center;">Time</p>
<p>Lesson #5: OIL MADNESS</p>		
<ol style="list-style-type: none"> 1. The students will read a newspaper article about an oil spill and the resulting pollution. The questions, who, what, where, when, why, and how will be answered by the students about the spill. A list of environmental effects will be listed as well. 2. The students will create an oil spill of their own. Different tools will be used for clean up and the students will discuss and demonstrate the best clean up solutions with the class. 3. Students will research and present findings on oil spills around the world and what is being done to clean them up. 	<ul style="list-style-type: none"> • Oil Spill • Tanker • Exxon Valdez • Ramifications 	<p>Day 1: 65 minutes</p> <p>Day 2: 70 minutes</p>

Objectives: <small>BY THE END OF THIS LESSON STUDENTS WILL:</small>	Vocabulary:	Time
<h2>Lesson #6: TWINKLE, TWINKLE, BIG BRIGHT LIGHTS</h2>		
<ol style="list-style-type: none"> 1. Students will understand the legends and the truths about what causes the aurora borealis through slides. 2. Students will identify the layers of the atmosphere through the activity Holy Ionosphere Batman! 3. Students will become charged particles in a modified game of Twister and recognize which electrons cause the dancing lights in the sky. 	<ul style="list-style-type: none"> • Norther Lights/Aurora Borealis • Oxygen • Nitrogen • Magnetosphere • Particles • Electrons • Atoms 	<p>Day 1: 80 minutes</p> <p>Day 2: 70 Minutes</p>



Alaskan Unit Test

There are multiple parts to your test, multiple choice, fill in the blank, matching, and short answers.

Multiple choice: Read the question and then select the best answer by circling the letter.

1. Which natural resource is found in northern Alaska?
 - a. trees
 - b. oil
 - c. gas
 - d. northern lights

2. What causes the northern lights in the sky?
 - a. Warriors who died in battle and were allowed to battle on in the skies forever
 - b. Sunlight reflecting off the polar ice
 - c. collision of particles together
 - d. Spirits in heaven lighting the way for new arrivals

3. Another name for the Northern Lights are:
 - a. beautiful colors
 - b. shining brightly
 - c. dancing lights
 - d. aurora borealis

4. Alaska has a **much larger** quantity of this than Kansas?
 - a. Beef Cattle
 - b. Fish
 - c. Crop Fields

- d. Snow
- 5. Alaska became a state in
 - a. 1959
 - b. 1867
 - c. 1917
 - d. 1912

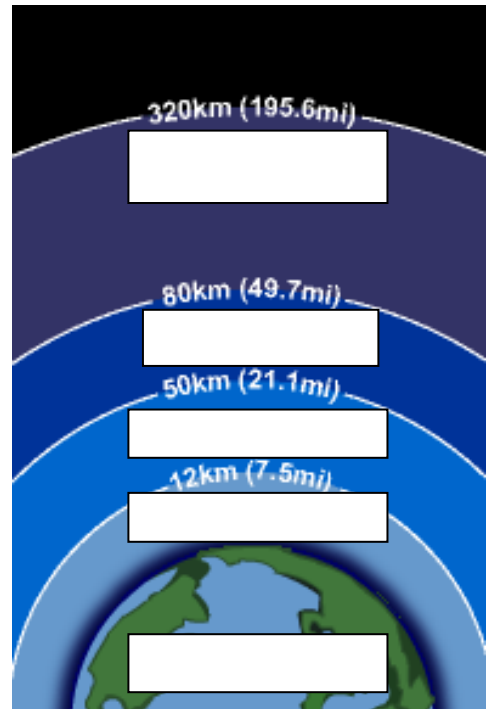
Vocabulary used throughout the unit. Read the question and using the word bank, select the appropriate word. You may use the word only once. There may be extra words.

<i>Craggy</i>	<i>Indigenous</i>	<i>Ominous</i>	<i>Prospectors</i>
Athabaskan	frigid	Aurora Borealis	

- 6. The highway is famous for spectacular mountain ranges, but it's not all _____ peaks and virgin forests.
- 7. The army could not have managed without first nations people . . . and other _____ people of the North Country.
- 8. At first it was odd and _____ speeches interrupting Fibber Magee and Molly, and Tommy Odrsey, or Jack Benny.
- 9. The 40,000 _____ who went north didn't have a land route across Canada.
- 10. Another name for the Northern Lights are _____.

11-15. Matching: Put the letter next to the word in the box, that is in the correct layer.

- a. Earth
- b. Stratosphere
- c. Ionosphere
- d. Troposphere
- e. Mesosphere



Short Answer: Answer the question in a complete sentence with details.

16. Compare and Contrast how students in Alaska live differently from in Kansas (food, clothing, life style etc.).

17. What are the similarities of natural resources between Kansas and Alaska?

18. Explain the result of the Exxon Mobile Oil Spill in Alaska.

19. You had the opportunity to become a character from Alaska. Tell me the person you became and share with me what you learned about this individual or another individual.

20. What affects did other cultures have on the Athabascan people?



Alaskan Unit Test KEY

There are multiple parts to your test, multiple choice, fill in the blank, matching, and short answers.

Multiple choice: Read the question and then select the best answer by circling the letter.

1. Which natural resource is found in northern Alaska?
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2. What causes the northern lights in the sky?
 - a. Warriors who died in battle and were allowed to battle on in the skies forever
 - b. Sunlight reflecting off the polar ice
 - c. collision of particles together
 - d. Spirits in heaven lighting the way for new arrivals

3. Another name for the Northern Lights are:
 - a. beautiful colors
 - b. shining brightly
 - c. dancing lights
 - d. aurora borealis

4. Alaska has a much larger quantity of this than Kansas?
 - a. Beef Cattle
 - b. Fish
 - c. Crop Fields
 - d. Snow

5. Alaska became a state in

- a. 1959
- b. 1867
- c. 1917
- d. 1912

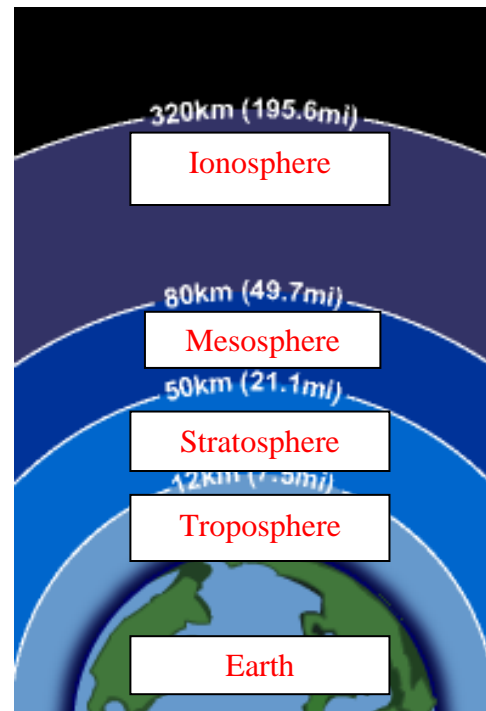
Vocabulary used throughout the unit. Read the question and using the word bank, select the appropriate word. You may use the word only once. There may be extra words.

<i>Craggy</i>	<i>Indigenous</i>	<i>Ominous</i>	<i>Prospectors</i>
Athabaskan	frigid	Aurora Borealis	

6. The highway is famous for spectacular mountain ranges, but it's not all craggy peaks and virgin forests.
7. The army could not have managed without first nations people . . . and other indigenous people of the North Country.
8. At first it was odd and ominous speeches interrupting Fibber Magee and Molly, and Tommy Odrsey, or Jack Benny.
9. The 40,000 prospectors who went north didn't have a land route across Canada.
10. Another name for the Northern Lights are aurora borealis.

11-16. Matching: Put the letter next to the word in the box, that is in the correct layer.

- a. Earth
- b. Stratosphere
- c. Ionosphere
- d. Troposphere
- e. Mesosphere



Short Answer: Answer the question in a complete sentence with details.

17. Compare and Contrast how students in Alaska live differently from in Kansas (food, clothing, life style etc.).

Example Answer:

Students in Alaska tend to wear clothes that are much thicker and warmer due to the climate. Many of the students in Alaska like to hike, climb, ski, and do outdoor activities. Students in Kansas wear shorts and tanktops most of the year. Students in Kansas may not hunt for their food and rely upon migration of wildlife for food.

18. What are the similarities of natural resources between Kansas and Alaska?

The natural resources that are present in Kansas and Alaska are that we use the oil from Alaska. There are crops grown in KS and some grown in Alaska. Fish is present in both locations, even though they are different species. Trees are present in both states, but only in specific areas.

19. Explain the result of the Exxon Mobile Oil Spill in Alaska.

The Exxon Mobile Oil Spill caused severe harm to wildlife, plants, economy, and to the people. The oil destroyed vegetation along the coast and caused sunlight to not be present so oxygen levels decreases in the waters. Wildlife became slippery and coated with the oil and died. The people that helped clean up the mess were also impacted due to the effects of working with oil. The industry suffered because of the lack of food present.

20. You had the opportunity to become a character from Alaska. Tell me the person you became and share with me what you learned about this individual or another individual.

Examples may be very diverse.

21. What affects did other cultures have on the Athabascan people?

The Athabascan people began trading and using more efficient items in their daily lives. Diseases were introduced into the Athabascan people and illnesses became more prevalent. Outsiders were brought into the Athabascan villages and the outsiders were not aware of the traditions.

Alaska? - Yea or Nay



Subject Areas: Social Studies, Language Arts

Grade: 4

Rationale: To introduce the students to Alaska they will use their prior knowledge to discuss why Alaska is important for the United States. Even though the purchase was completed more than a hundred years ago, the process of debating will give students a sense of what the government and the people of the United States considered at the time of the decision to purchase Alaska. The purpose of this lesson is to help the students start to think about what they already know about Alaska and to decide how much they could learn and are about to learn in the unit.

Social Studies Standards:

History Standard: The student uses a working knowledge and understanding of significant individuals, groups, ideas, events, eras, and developments in the history of Kansas, the United States, and the world, utilizing essential analytical and research skills.

Benchmark 4: The student engages in historical thinking skills.

Language Arts State Standards:

Literature: The student responds to a variety of text.

Benchmark 1: The student uses literary concepts to interpret and respond to text.

- identifies and describes *characters'* physical traits, personality traits, and feelings, and explains reasons for *characters'* actions and the consequences of those actions.

Reading: The student reads and comprehends text across the curriculum.

Benchmark 3: The student expands vocabulary.

- uses a dictionary or a glossary to determine an appropriate definition of a word or uses a thesaurus to expand vocabulary.

Objectives/ILO's/Goals:

- Students will show their understanding that Alaska has presented both benefits for and challenges to the United States.
- Students will apply their knowledge during a debate as to why Americans were not of one mind on the purchase of Alaska.

Materials:

- Podium (if available)
- Index cards for note taking

Procedure:

1. **Anticipatory Set:** When I say Alaska, what do you think about? Write down three words to describe Alaska. Explain to students that over the next couple weeks we will be taking a journey together through the unique experience that is Alaska.
2. **(5 minutes)** Explain to students that they will debate the issue of purchasing Alaska from Russia in the 19th century.
3. **(10 minutes)** Students' first job will be to gather and arrange arguments in support of *AND* against the purchase. Instruct students to use index cards to take notes about reasons for purchasing Alaska and reasons for not purchasing it. They should keep index cards in support of the purchase in one pile and cards in opposition to the purchase in another pile. Remind students that they are to only use their own prior knowledge of Alaska. Then assign students to sides

for the debate. (This can be done by pulling cards out of a hat or dividing a line down the classroom.)

4. **(7 minutes)** Be sure that students understand the following points regarding the nature of a debate:
 - Debaters on each side will alternate presenting arguments to support their case. After each presentation, members of the other side may offer arguments in *rebuttal*—that is, in opposition. In order to present convincing rebuttals, debaters should know as much about the arguments for their opponents' case as for their own.
 - At the end of the debate, one person from each side will present a summary of that side's argument.
 - After the summaries, each member of the audience will vote for the side he or she thinks has presented the most convincing argument.
5. **Activity: (30 minutes)** Divide students into small groups of an equal number. Explain/review the rules and roles of a debate (see attached handout). Assign each group a role for their argument. Consider having students take on the role of actual public figures from the period, including the following:
 - Secretary of State William Marcy (an expansionist who preceded Seward)
 - Senator William M. Gwin and other expansionists in the House of Representatives and the Senate
 - Secretary of State William H. Seward, who was responsible for the purchase
 - Specific senators or representatives who argued against expansion by the United States
 - American newspaper columnists and editorial writers on each side
 - Russian diplomats on both the "sell" and "don't sell" sides
 - American geologists

Pair each "for purchase" group with an "against purchase" group. Allow time for each pair of groups to debate each other.

6. **Closure: (5 minutes)** The class will vote on which group in each pair presented the stronger argument. Have a discussion about why some arguments were better than others.

Modifications:

Students may become extremely verbally aggressive, as the teacher be prepared to handle this situation. Have graphic organizers ready to help those students that need assistance in formulate their thoughts.

Assessment:

Evaluate the students on their group's arguments using the following three-point rubric:

Three points: many supporting details to aid in a believable argument; well-organized presentation; logical, persuasive arguments

Two points: more supporting details needed; well-organized presentation; clear arguments

One point: few supporting details; disorganized presentation; weak arguments

Ask students to contribute to the assessment rubric by determining how many details should be required and what constitutes a well-organized presentation.

Extensions:

1. **Alaska's Air Power**

Use appropriate maps and globes to have students explain the importance of Alaska for air travel. Students should be able to demonstrate why the polar route remains advantageous. Ask them to identify other parts of the world that share this strategic advantage.

2. **Army Corps of Engineers**

Have students look into and report on other projects—past or present—by the Army Corps of Engineers, the task force that built the Alaska Highway. In parts of the country where the corps is active, you may be able to have students invite a speaker to address them and to answer questions.

Vocabulary:

Craggy

Definition: Full of steep, rugged slopes.

Context: The highway is famous for spectacular mountain ranges, but it's not all craggy peaks and virgin forests.

Indigenous

Definition: Native to an area not introduced.

Context: The army could not have managed without first nations people...and other indigenous people of the North Country.

Ominous

Definition: Foreshadowing evil; foreboding and threatening.

Context: At first it was odd and ominous speeches interrupting Fibber Magee and Molly, and Tommy Dorsey or Jack Benny.

Prospectors

Definition: Those people who explore or search for mineral and ore deposits in an area.

Context: The 40,000 prospectors who went north didn't have a land route across Canada.

OPENING STATEMENT WORKSHEET

Opening Statement Presenter:

Gathers the main arguments into an introductory statement. Does not give specific information; just says, "this is true because of A and B and C."

1. _____

Topic Presenters:

Present the main arguments for the team. Each presenter give specific details that prove A and B and C.

(2 or 3)

1. _____

2. _____

3. _____

Rebuttal Presenters:

Answer the arguments of the other team. These presenters must take notes as the other team is presenting their arguments and respond to every argument, using specific information to disprove them.

(1 or 2)

1. _____

2. _____

Closing Statement Presenter:

Presents the closing arguments for the team. Repeats the main idea for this and this and this reasons.

1. _____

DEBATE RULES

No put-downs.

You must raise your hand if it's not your time to speak.

Teams lose 1 point for each interruption.

Teams lose 1 point for whispering while another speaker is talking.

TIMES

Opening statements for both sides = 3 minutes each

Arguments for both sides = 3 minutes each

Rebuttal conference = 1 minute

Rebuttals = 2 minutes each

Closing statements for both sides = 3 minutes each

The Debate

Date:

Class:

PRO

CON

Clear statement of main idea in opening statement

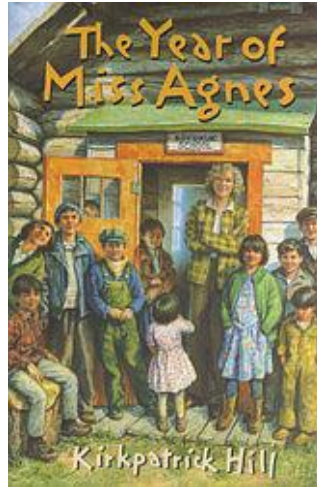
Points

- 1.
- 2.
- 3.

Rebuttals

Closing Statement

The Year of Miss Agnes



Subject Areas: Social Studies, Language Arts

Grade: 4

Rationale: "Most teachers who come to their one-room schoolhouse in remote, Alaska leave at the first smell of fish, claiming that life there is just too hard."

- Kirkpatrick Hill *The Year of Miss Agnes*

It is important for students to get a glimpse into the lives of students just like them, only from Alaska. This book gives a good overview of a year in the life of a ten-year old Athabascan girl and her classmates. The book helps students relate to the Alaskan culture because the students can see it through a character their age.

Social Studies State Standards:

Civics-Government Standard: The student uses a working knowledge and understanding of governmental systems of Kansas and the United States and other nations with an emphasis on the United States Constitution, the necessity for the rule of law, the civic values of the American people, and the rights, privileges, and responsibilities of becoming active participants in our

representative democracy.

Benchmark 2: The student understands the shared ideals and diversity of American society and political culture.

Economics Standard: The student uses a working knowledge and understanding of major economic concepts, issues, and systems, applying decision-making skills as a consumer, producer, saver, investor, and citizen of Kansas and the United States living in an interdependent world.

Benchmark 1: The student understands how limited resources require choices.

Benchmark 3: The student analyzes how different incentives, economic systems and their institutions, and local, national, and international interdependence affect people.

Geography: The student uses a working knowledge and understanding of the spatial organization of Earth's surface and relationships between peoples and places and physical and human environments in order to explain the interactions that occur in Kansas, the United States, and in our world.

Benchmark 1: Geographic Tools and Location: The student uses maps, graphic representations, tools, and technologies to locate, use, and present information about people, places, and environments.

Benchmark 2: Places and Regions: The student analyzes the human and physical features that give places and regions their distinctive character.

Benchmark 4: Human Systems: The student understands how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict.

Benchmark 5: Human-Environment Interactions: The student understands the effects of interaction between human and physical systems.

Language Arts State Standards:

Literature: The student responds to a variety of text.

Benchmark 2: The student understands the significance of literature and its contributions to human understanding and culture.

- describes aspects of history and culture found in works of literature.
- compares and contrasts various languages, traditions, and cultures found in literature.
- makes connections between specific aspects of literature from a variety of cultures and personal experiences.

Reading: The student reads and comprehends text across the curriculum.

Benchmark 3: The student expands vocabulary.

- determines the meaning of words or phrases by using context clues

Benchmark 4: The student comprehends a variety of texts

- understands the purpose of text features

Objectives/ILO's/Goals:

- Students will apply listening skills while the instructor performs daily read aloud.
- Students will show their comprehension of *The Year of Miss Agnes* by responding to reading prompts provided in class in their journals.
- Students will demonstrate their understanding of the differences/similarities and advantages/disadvantages of living in Alaska through discussion and debate.

Materials:

- *The Year of Miss Agnes* copy for teacher
- 1 journal per student
 - ❖ 5 pieces of 8 $\frac{1}{2}$ x 11 paper (for journal entries)
 - ❖ 1 piece of 11 x 17 construction paper (for cover)
- Writing utensils (pens, pencils, markers, etc.)

Procedure:

Making the connection

Review with students what was learned and discussed during the previous lesson. Explain that during this lesson they will experience Alaska through the eyes of a student their age.

1. Anticipatory Set: (10 minutes)

Students will create their journals, putting the title and author of the book, as well as their name, on the cover, leaving space for drawing later in the

week. Students will be expected to respond using the six traits.

Ask students how they feel on the first day of school.

Examples:

- "How do you feel when you walk into the classroom for the first time?"
- "What feelings do you have when you see your teacher for the first time?"

2. Activity: (10-15 minutes)

Teacher will read 2 chapters every day and afterwards students will respond to the prompts posted on the board in their journals.

A. Chapters 1 and 2 prompt:

- If your parent(s) or guardian got a job in Alaska, how would you feel about moving there?

B. Chapters 3 and 4 prompt:

- What is different about the clothing that the characters wear and the food that they eat?

Draw two items of clothing that Fred's Mamma and Grandmother make.

C. Chapters 5 and 6 prompt:

Draw one item that is important in your life.

Discuss with students how different the favorite things of the

Athabascan children differ from their favorite things.

Students' journal entry will compare and contrast the objects the children drew and what the students themselves drew and whether

their items are a need or a want.

D. Chapters 7 and 8 prompt:

- If your parents did not make you go to school, would you? Why or why not?
- Why is getting an education important?

E. Chapters 9 and 10 prompt:

- What affects did other cultures have on the Athabascan people?

F. Chapters 11 and 12 prompt:

- Make a timeline of your life indicating at least five important events.

G. Chapters 13 and 14 prompt:

- What do you think their teacher next year will be like?

H. Chapters 15, 16, and 17 prompt:

- How can you as a single person have an effect on society as Miss Agnes did?
- What would you like to do to make your community a better place?

3. Closure: (20 minutes)

Students will draw their favorite scene from the book on the covers of their journals and explain how that scene relates to the uniqueness of Alaska.

Modifications:

Students may not listen closely and/or have a hard time with brainstorming ideas for the covers of their journals. Teacher may need to provide prompts for struggling students, monitoring the students by walking around the room while students work on their journals. Due to any changes the teacher may make to the lesson adjust the number of pages in the students journals accordingly.

Assessment:

Students will be assessed on the neatness of their journals. The responses to the prompts must be complete sentences and in paragraph form. The journal must be complete with all questions responded to.

Extensions:

1. Students will have the option of using extra class time or free time to visit the book table in the back of the room. The book table will have several Alaska themed books with a wide variety of reading levels. Students will create their own prompt and response to add to their journal. A list of books includes: *List is on the next page.*
2. Students will design a project that would benefit the community as a whole. They will put the plan in their journal.
3. As a class the students design a plan that will bring a positive change to the school.

Books for book table

Totem Tale: A tall story from Alaska

Children of the Gold Rush

Alaska (Portrait of America)

Balto

The year of Miss Agnes

The Great Serum Race

Looking for Seabirds

River of Life

Children of the Tlingit

Children of the Midnight Sun

Flight of the Golden Plover

Racing the Iditarod Trail

Gloomy Gus

Julie's Wolf Pack

The Secret Moose

Black Wolf of Savage River

Alaska Animals and their Babies

The Alaska Mother Goose

Alaska's Three Bears

A Caribou Alphabet

A Caribou Journey

A Child's Alaska

Deneki, An Alaskan Moose

Eagles for Kids

If you lived in Alaska Territory

Kiana's Iditarod

Kid's Guide to Common Alaska Critters

Moose for Kids

Puffins

Swimmer

This Place Is Cold

Klondike Fever



Subject Areas: Social Studies

Grade: 4

Rationale: It is important for students to learn about the Klondike Gold Rush in Alaska so they understand the way of life during that time period and how this event shaped the area. This part of Alaskan history helps the students compare the California Gold Rush to the Klondike Gold Rush.

Social Studies State Standards:

History Standard: The student uses a working knowledge and understanding of significant individuals, groups, ideas, events, eras, and developments in the history of Kansas, the United States, and the world, utilizing essential analytical and research skills.

Benchmark 4: The student engages in historical thinking skills.

Geography: The student uses a working knowledge and understanding of the spatial organization of Earth's surface and relationships between peoples and places and physical and human environments in order to explain the interactions that occur in Kansas, the United States, and in our world.

Benchmark 2: Places and Regions: The student analyzes the human and physical features that give places and regions their distinctive character.

Benchmark 5: Human-Environment Interactions: The student understands the effects of interaction between human and physical systems.

Language Arts State Standards:

Reading: The student reads and comprehends text across the curriculum.

Benchmark 4: The student comprehends a variety of texts

- understands the purpose of text features
- uses prior knowledge and content to make, revise, and confirm predictions.
- generates and responds logically to literal, inferential, and *critical thinking* questions before, during, and after reading the text.
- compares and contrasts information

Literature: The student responds to a variety of text.

Benchmark 2: The student understands the significance of literature and its contributions to human understanding and culture.

- describes aspects of history and culture found in works of literature.

Objectives/ILO's/Goals:

- Students will research the different roles involved in the Klondike Gold Rush.
- Students will appreciate the survival techniques the Klondike population had to use.
- Students will present their knowledge of these roles in a living museum to different classes.

Materials:

- Books: to research about the Klondike.
- Internet access
- Materials to create props

Procedure:**Making the connection**

Students will have had an introduction to the history and culture of Alaska. The teacher will explain to students that through the previous lesson they started learning about Alaska from the perspective of an

Alaskan. In this lesson students will pose as someone involved in the Klondike Gold Rush.

1. **Anticipatory Set: (3 minutes)** The instructor presents a picture of a shipment of Klondike gold (see attachment) and asks the students each to write down what they think are in the boxes.
2. **(7 minutes)** The instructor asks volunteers to share their brainstorming ideas about what the boxes contained. Then the instructor will reveal that gold was in the boxes. The instructor will ask if the students know what it means to goldrush. (This would be a time to compare the California Gold rush if there is prior knowledge.)
3. **(15-20 minutes)** Instructor will lecture about the Klondike Gold Rush and its significance to Alaskan history.
4. **(20 minutes)** Instructor will explain that as a class they are going to create a Living Wax Museum for other classes to show what they have learned about the Klondike Gold Rush. Students will choose a person/event from an approved list of gold rush roles/events (go through and briefly explain each role/event. In small groups or individually, students will create a museum gallery all about their role/event. The instructor will explain that through their own exploration in books they will learn about the specific role/event they have chosen.
5. **Activity: (75 minutes)** Instructor will provide materials and time for the students to research and create their gallery (Suggestions: Designate an area for supplies and an area for research. Have a sign up sheet for students to write down what resources they are using, in case they want to take it home for extra research time). While the students are working, the instructor will bring up each group to have a mini conference to see how the group's planning is going and give suggestions if needed.
6. **(25 minutes)** Explain the assessment in the class and provide time for the students to practice.
7. **Closure: (Time will vary, depending on other class participation)** Present the museum to other classes in the school.

Modifications:

Students may want to take notes during the lecture part of the lesson to help them determine what needs to be done in the wax museum. While they are working on their task students will assign tasks if in a group. Those in the group who do not wish to "act," may make the props for the museum scene their group is presenting. Provide a graphic organizer to help students organize their thoughts.

Assessment:

Students will be assessed on:

1. The neatness and relevancy of the museum gallery.
2. Completeness - Did the group include information on who/what the event was, what their significance was and how the Klondike Gold rush impacted Alaskan culture today? Are there effective props and costumes to explain what you are displaying?
3. Oral presentation - Did the group present what they learned in class in a way that others can learn from their research, presentation and visual aides?
4. Authenticity of ownership - Did all group members work together and each have a part in the presentation?

Extensions:

- Have a Parents night where the parents come and see the museum.
- Have students assume different roles in other scenes in the classroom.

WHAT DO YOU THINK THESE BOXES
CONTAIN?



What do you think
these boxes contain?

KLONDIKE FEVER

Klondike Fever

- newspaper reporter
- stampeder, which took the all-water route
- stampeder, which took the all-land route
- stampeder, which took the land/sea route
- stampeder that never made it to Dawson City
- stampeder building a boat
- Tlingit Indian
- horse from White Pass Trail
- northwestern mounted policeman
- stampeder who made it to Dawson City but the gold claims were taken
- May 29, 1898
- Living Wax Museum Tour Guide
- July 14, 1897
- Klondike Traveling Agent

KLONDIKE RESEARCH CHECKOUT

KLONDIKE RESEARCH CHECKOUT	
Name:	Resources:
Sample- John Doe	Klondike Fever by Suzy Q
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
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25.	
26.	
27.	

KLONDIKE LIVING WAX MUSEUM

DIRECTIONS:

Familiarize yourselves with the Klondike role/event your group has chosen through research and what we discussed in class, and then create one short role-play/scene to be a part of our Living Wax Museum. You will start out your scene frozen and then come to life when our tour guide pretends to push a button for your exhibit. You may move and speak during your exhibit, but then should freeze again when it is ended.

STEPS IN WAX MUSEUM:

1. Decide if you want to work individually or in a group.
 - a. If you are working in a group: get into pairs or groups of three
2. Decide upon a topic - What is important about your topic? What will you display? (We NEED: 2 tour guides and a travel agent)
3. Decide upon the scenery (props) and where your scene will be located in the room sign up on classroom map when ready (see attachment example).
4. Decide upon costumes and hand-held props.
5. Decide how you will position yourselves. REMEMBER - You will have to hold that position for about 5 minutes.
6. Research your topic further and write up an article to be typed and placed in the Museum Guidebook.
7. Practice your scene.

TOUR GUIDES (Read if you've chosen this role)

1. Create a sign-up sheet for your classes.
2. Decide what you will wear.
3. Make notecards on each scene with important facts to tell. (Main ideas and interesting details.
4. Decide upon opening comments to classes. What will they see in the museum? What is proper behavior in the museum? What they should look for?
5. Decide on how you will end your tour.
6. Practice.

TRAVEL AGENT (Read if you've chosen this role)

1. Explain why gold seekers were drawn to Dawson City.
2. Draw a map of different routes/times it took to take the routes to Dawson City.
3. Decide upon scenery to advertise Klondike Gold.
4. Decide what you will wear.
5. Practice

ROLE/EVENT SIGN UP

Tour Guides

1.

2.

Travel Agent

1.

Role/Event _____

Group member(s) _____

Role/Event _____

Group members _____

Role/Event _____

Group members _____

Role/Event _____

Group members _____

We're Not in Kansas Anymore!



Subject Area: Social Studies

Grade Level: 4

Rationale: It is important for students to learn about modern life in Alaska so they can successfully participate as United States citizens in understanding and developing correct ideas about life in Alaska.

Social Studies State Standards:

Civics-Government Standard: The student uses a working knowledge and understanding of governmental systems of Kansas and the United States and other nations with an emphasis on the United States Constitution, the necessity for the rule of law, the civic values of the American people, and the rights, privileges, and responsibilities of becoming active participants in our representative democracy.

Benchmark 2: The student understands the shared ideals and diversity of American society and political culture.

Economics Standard: The student uses a working knowledge and understanding of major economic concepts, issues, and systems, applying decision-making skills as a consumer, producer, saver, investor, and citizen of Kansas and the United States living in an interdependent world.

Benchmark 1: The student understands how limited resources require choices.

Language Arts State Standards:

Literature: The student responds to a variety of text.

Benchmark 2: The student understands the significance of literature and its contributions to human understanding and culture.

- describes aspects of history and culture found in works of literature.
- compares and contrasts various languages, traditions, and cultures found in literature.

Reading: The student reads and comprehends text across the curriculum.

Benchmark 3: The student expands vocabulary.

- determines the meaning of words or phrases by using context clues
- uses a dictionary or a glossary to determine an appropriate definition of a word or uses a thesaurus to expand vocabulary.
- determines meaning of words through knowledge of word structure

Objectives/ILO's/Goals:

- Students will research and list aspects of the culture that they are assigned as a group.
- Students will be able to depict their research through a role-play to the other students.

Materials:

- Cards with each group's subject written on them (school, work/employment, sports and recreation, entertainment and transportation
- Whiteboard and markers
- Research materials (reference books, internet, etc.)

Procedure (115 Minutes):

Making the connection

Explain to the students that the first three lessons they were exposed to the aspects of Alaskan culture from the past. In this lesson

students will research and compare modern Alaskan culture with modern Kansas culture.

1. **Anticipatory Set: (15 minutes):** Begin by asking students what they think of when they hear the word Alaska. Have students brainstorm and list their ideas on the board. Discuss some of their ideas and how their ideas may be stereotypical.
2. **Activity: (5 minutes):** Divide students into 5 groups. Have each group pick a card from a bucket/hat that has a cultural subject written on it. That is the subject they will be researching.
3. **(5 minutes)** Explain to the students that the ideas they have are good, but there is much more to Alaska than most of us know. Encourage them to not only research their topic, but to put themselves in the shoes of kids in Alaska as they go through their normal day.
4. **(10 minutes)** Have students brainstorm by making a web about their particular topic. If they don't know anything about their topic pertaining to Alaska, have them brainstorm ideas about what they might find as they research their topic.
5. **(25 minutes)** Allow the students time to research their topics, either by going to the library to use reference books and the Internet or have the materials available in the classroom itself. As students are researching, encourage them to take on the perspective of Alaskan children. Discuss with them important ideas on their topic and offer help when needed.

Books to have available for research:

- *...If you lived in the Alaska Territory*
- *Swimmer*
- *Deneki: An Alaskan Moose*
- *A Caribou Journey*
- *Imagine Living Here: This Place is Cold*
- *Kids' Guide to Common Alaska Critters*
- *Moose for Kids*
- *The Iditarod: Story of the Last Great Race*

- *A Child's Alaska*

6. **(10 minutes)** Explain to students that they will be taking an important idea from their research and depicting it for the rest of the class in a role-play. Give them time to discuss the role-play with their group.
7. **(25 minutes)** Have each group come up and present their role-play to the class.
8. **Closure: (20 minutes):** Discuss any important parts of the role-play with the class after each one. Emphasize the importance of knowing a culture before making judgments or being stereotypical about the people involved.

Modifications:

The teacher may need to help students locate more books or other sources of information for the research they need to conduct. Some students may have a very hard time role-playing in front of the class. Give those students the option of "hiding" behind props. The teacher may have to make a graphic organizer informing students what they need to be looking for.

Assessment:

The assessment will happen when students are doing their group's role-play and through the discussion/questions that will follow each one. As the teacher, I would take notes on each role-play and the important points they brought out during their time in front of the class. I also would collect the lists/research that they conducted and assess whether or not they completed that part of the assignment (by writing lists/notes on their research).

Extensions:

1. See if you can find a way to start a pen pal program with a class in Alaska so that students can exchange information about their everyday lives. When letters arrive from the Alaskan classroom, share them with the entire class.

-Intercultural E-Mail Classroom Connections is a good source for this (<http://www.iecc.org/>)

2. Have students research a topic that they didn't have the opportunity to research with their group. Have them give a presentation on their findings to the class.

Oil Madness



Subjects: Social Studies and Science

Grade: 4

Rationale: Students will understand the importance of the resource oil deposits in Alaska and how important protection of that environment is. The simulation of an oil spill and clean up will help the students understand what happens to the environment as a result of an oil spill, and develop a greater awareness of taking responsibility for their own environment. Newspaper articles will help the students understand the ramifications of an oil spill that took place before they were born, and the clean up that is going on to this day. The students will be assessed on their group cooperation in cleaning up their spills, and the findings recorded and presented.

Social Studies State Standards:

Economics Standard: The student uses a working knowledge and understanding of major economic concepts, issues, and systems, applying decision-making skills as a consumer, producer, saver, investor, and citizen of Kansas and the United States living in an interdependent world.

Benchmark 1: The student understands how limited resources require choices.

Geography: The student uses a working knowledge and understanding of the spatial organization of Earth's surface and relationships between peoples and

places and physical and human environments in order to explain the interactions that occur in Kansas, the United States, and in our world.

Benchmark 2: Places and Regions: The student analyzes the human and

Benchmark 5: Human-Environment Interactions: The student understands the effects of interaction between human and physical systems.

Language Arts State Standards:

Reading: The student reads and comprehends text across the curriculum.

Benchmark 3: The student expands vocabulary.

- determines the meaning of words or phrases by using context clues
- uses a dictionary or a glossary to determine an appropriate definition of a word or uses a thesaurus to expand vocabulary.

Benchmark 4: The student comprehends a variety of texts

- understands the purpose of text features
- uses prior knowledge and content to make, revise, and confirm predictions.
- generates and responds logically to literal, inferential, and *critical thinking* questions before, during, and after reading the text.
- compares and contrasts information

Objectives/ILO's/Goals:

- The students will read a newspaper article about an oil spill and the resulting pollution. The questions, who, what where, when, why and how will be answered by the students about the spill. A list of environmental effects will be listed as well.
- The students will create an oil spill of their own. Different tools will be used for clean up and the students will discuss and demonstrate the best clean up solutions with the class.
- Students will research and present findings on oil spills around the world and what is being done to clean them up.

Materials:

For each pair of students:

- 1 aluminum pie pan half-filled with water
- A medicine dropper full of used motor oil
- Cotton balls
- Nylon
- String
- Paper Towels
- Liquid detergent
- Feathers
- Water

SLICK SEA SPILLS

Procedure:

Making the connection

Explain to students that in the previous lessons they studied the people, the history and the environment of Alaska. In this lesson they all come together in ways that either help or harm the environment through actions we all take.

1. Anticipatory Set: (10 minutes)

- What causes an oil spill? (*Tankers running aground.*)
- Have you ever seen oil on the street, garage floor, or in a parking lot?

(Draw a pie chart on the board or overhead and fill in the amounts and sources of pollution.) Actual tanker accidents contribute only 11% of the oil in our oceans. More than 54% comes from storm-water runoff, leaks from storage facilities, and industrial process. A lot of oil (at least 40% of all non-point oil pollution) comes from cars. Cars use oil to run and after so many miles, that oil needs to be changed. People who actually change their own oil may not be careful and allow some of it to spill, or simply do not fix their cars when they leak. Even if they change the oil correctly, they may not dispose of it properly. It should be taken to a gas station where it is picked up by a waste management company to be recycled or burned. If used oil isn't taken care of properly, and then; empties into landfills, storm drains, or backyards, it will carry toxic contaminants into ground water, streams, and lakes.

- What are the effects on water and animals if there is an oil spill?
- If an accident occurs, how can it be cleaned up?

Ask students if they have any ideas.

2. (5 minutes)

Ask students if they know what an oil tanker is. Follow up with asking them if they know what an oil pipeline is. Discuss if spills occur in water only.

- If oil leaks into the ground is that considered a spill?

Discuss ideas and questions students bring up about oil spills.

3. Activity: (20 minutes)

Give each pair of students the materials and a worksheet on which to record observations. Ask students to make predictions about the action of oil and water.

- What do you think will happen to the oil when you drop it on the water?
- Will it sink, float, or mix in?

Predict:

- Which material do you think will clean up the most oil in the least amount of time?
- Cotton, nylon, paper towel, or string?

Hold up the supplies for students to look at while you ask questions, or have students gather around the work area if possible.

Students will be grouped by spelling the word clean, c - l - e - a - n. Group all c's, all l's, ... and so on.

In their groups the students will select a Materials Manager who will come up to get the supplies. Then they will select a Safety Manager who will keep an eye on/inform the others about the proper handling of equipment and supplies. A Project Investigator will be selected and be in charge of set up of experiments and communications with the instructor. The Maintenance Director will

select one or two students to help clean up and return of equipment to the proper place, when the experiment is over.

Have the Materials Managers come up and get the supplies. Next, have each of team create an oil spill by putting five drops of used motor oil in the "ocean" (aluminum pie pan). Let them observe the action of the oil and record what happens.

- Were your predictions about oil and water correct?

Next have the students predict the effect of wind and wave action on oil and water. They can simulate the oceans behavior by blowing on and moving the water in the pan.

- What happens?

Have each group determine the effectiveness of each of the cleanup materials. They should identify the amount of oil cleaned up by each material and how quickly it worked.

Material used for clean up	<i>Approximately how much oil cleaned up, (write a %)</i>	<i>No oil cleaned up at all</i>	<i>Time it took for oil to be cleaned up</i>
Cotton balls			
Nylon			
String			
Paper towel			
Feathers			
Liquid detergent			

- Do your predictions compare to your results?

4. (10 minutes)

Have the students make another 5 drop oil spill in another pan of water. Each group adds 5 drops of liquid detergent (dispersant), have students observe and record what happens.

- Where do you think the oil would go in the real ocean?

5. **(5 minutes)**

Let students dip a feather in the oil.

- How do you think oily feathers might affect bird's behavior?

6. **(5 minutes)**

Because a body of water is a closed system why is it important to keep oil out? Why is cleanup so difficult? Why can clean-up efforts also cause damage? (Chemicals used can cause additional harm to wildlife and vegetation.) What can you do to prevent oil from leaking into water bodies?

7. **(10 minutes)**

Discuss the effects of an oil spill on animals living in the area where a spill has occurred.

- Why is an oil spill dangerous to marine animals?
- What happened to the feather when it was dipped into the oil?

Begin a discussion on how an animal's fur acts as insulation. Ask students if they have ever been caught in the rain in a wool sweater.

- Did they get cold?
- Were they wearing other layers of clothes that kept them warm?

Contrast the insulation that seals have (blubber) and otters do not (no excess body fat).

- What difference does that make when their coat becomes oil soaked?

Have the Maintenance Director and helpers dispose of and clean up their work areas. They should also return any items that are not to be disposed of.

Modifications:

Some students may become carried away with their used motor oil and the clean-up effort. Have another adult in the room to help in supervision of the substances that will be present during this day of the lesson. The teacher may need to limit the tools that some students get to use.

Assessment:

Students will be assessed on the predictions and outcomes they record during the experimental oil cleanup.

Enrichment:

Because Alaska is so unique, how can we protect it? Have students read an article about an oil spill in Alaska. Discuss the results on the environment and animals that live there.

COULD IT HAVE BEEN PREVENTED?

Procedure:

Materials:

- Newspaper article on the Exxon Valdez oil spill - 1 copy per student
- Paper
- Pencils
- Computer lab (if needed)

1. Anticipatory Set: (10 minutes)

Yesterday we learned what methods work and which ones do not work in cleanup after an oil spill.

- Who remembers what worked?
- What did not work?
- How did you test to find these answers?

The article we read gave an idea of how a spill can harm the environment and the creatures that live there. Today we are going to research an oil spill.

2. Activity: (30 minutes)

Research what happened after a recent major oil spill:
Exxon Valdez, Alaska, 3/24/89

Have students list: who, what, where, when, why and how of the oil spill. Once, that is done the students will individually write a conclusion about the environmental impacts resulting from oil spills. There is to be no partnering in this writing. Students are to come to their own conclusions.

3. Conclusion: (30 minutes)

Students will present their conclusions to the class. Form a circle with the chairs and have the students read aloud their papers. Discussion after each paper can take place briefly.

Modifications:

Students who struggle with reading may be paired with another student or the teacher can read the article to that student or students. The teacher could also have small group choral reading taking place.

Assessment:

Students will be assessed on the list of who, what, when, where, why, and how from the article. They will also have a conclusion about the environmental impacts of oil spills. They will share this information in the discussion after reading the article.

Enrichment:

Have the students research how long it has taken to clean up the oil spill in Alaska. The students can access an article about the clean up at: <http://access.newspaperarchive.com/cache/29971237.pdf>

The students would write up the answers to the same questions (5w's and an H). A conclusion about if it should take so long and what could be done to change how long it does take to clean up a major oil spill.

Extensions:

1. Students may try the procedure again, first using salt water and then using distilled water.
2. Have the students research environmental laws that are currently in effect to help protect the environment and write out how they could change, eliminate or improve upon existing laws to protect the oceans and land from oil spills.

VOCABULARY

- **Oil Spill** - the unwanted release of oil into the water or onto land, due to faulty equipment or the results of a manmade error.
- **Tanker** - vessel designed to carry liquid cargo
- **Exxon Valdez** - a tanker that carried oil, was involved in the largest oil spill in history at that time, March 24, 1989.
- **Ramifications** - long-term results or affects.

Twinkle, Twinkle, Big Bright Lights



Subject Areas: Social Studies, Language Arts

Grade: 4

Rationale: The northern lights are an integral part of Alaska and having the students understand why and how the northern lights occur is crucial. We have lightning and thunder storms throughout the year, but in space, storms also occur. Helping the students to recognize that no matter where you are storms and changes can take place in the surrounding area. By understanding why northern lights occur in Alaska also explains why we are able to see them here in Kansas sometimes. These vibrant and dancing lights in the sky are unique and exciting to see in Alaska.

Social Studies State Standards:

Geography: The student uses a working knowledge and understanding of the spatial organization of Earth's surface and relationships between peoples and places and physical and human environments in order to explain the

interactions that occur in Kansas, the United States, and in our world.

Benchmark 2: Places and Regions: The student analyzes the human and physical features that give places and regions their distinctive character.

Benchmark 3: Physical Systems: The student understands Earth's physical systems and how physical processes shape Earth's surface.

Language Arts State Standards:

Reading: The student reads and comprehends text across the curriculum.

Benchmark 4: The student comprehends a variety of texts

- understands the purpose of text features
- uses prior knowledge and content to make, revise, and confirm predictions.
- compares and contrasts information

Literature: The student responds to a variety of text.

Benchmark 2: The student understands the significance of literature and its contributions to human understanding and culture.

- describes aspects of history and culture found in works of literature.

Objectives/ILO's/Goals:

- Students will understand the legends and the truths about what causes the aurora borealis through slides and a video.
- Students will identify the layers of the atmosphere through the activity Holy Ionosphere Batman!
- Students will become charged particles in a modified game of Twister and recognize which electrons cause the dancing lights in the sky.

AURORA WHAT?



Procedure (1 hour 20 minutes)

Making the connection

Tell students that in the previous lesson we discussed a natural formation that occurs on the earth. In this lesson students will explore the phenomenon that takes place in the atmosphere.

Materials:

- Slide Show (power point)
- Pens or pencils
- Note cards
- Aurora Video "Aurora Explained"
- Atmosphere felt board with accessories
- Aurora Twister game board, spinner and poster
- Magnetic board & magnets

1. Anticipatory Set: (15 minutes)

Have the children close their eyes for a moment and imagine that they live in a time with no TV, no computers, or radios, not a single luxury! They are nomads, traveling across the snow-covered forest at night. Suddenly the sky is lit up with dancing lights! Show the students the first half of the power point (showing pictures of various occurrences of the aurora borealis.) Pass out the pens and note cards. Ask them to think about how the lights got there, and what they are - keeping in mind they are nomadic, primitive people who do not understand the science of today. Take about 5 minutes and have them write their answers. Show the remainder of the slides and share with the kids some of the mythology associated with the aurora borealis. If time permits have some of the kids share a few of their ideas. Collect the cards and make a

list of the class myths to share with them later, if time permits.

Common Myths of the Northern Lights:

- Warriors who died in battle and were allowed to battle on in the skies forever
- Spirits in heaven lighting the way for new arrivals
- Sunlight reflecting off the polar ice
- A sign of illness, plague or death to come
- One shouldn't stare, wave, or whistle at them or they might reach down and take you

2. Activity: (15 minutes)

Time to turn on the gray matter! After the class has had a chance to make up what they think the northern lights are, now it is time to dazzle them with the cold hard facts. In this section both a video and props are used to explain just what the students are seeing in the winter skies. The aurora video has some great footage of northern lights along with wonderful graphics explaining how they are formed. Before we jump into the video, the teacher needs to set up a little background information for the class.

Ask the students' to tell you 'bout this big ol' magnet we all live on! The earth is in fact a gigantic magnet. It's as if a large bar magnet ran through the center of the planet- this magnet creates a magnetic field around the earth. This magnetic field prevents the solar wind from penetrating the earth's atmosphere. At this point it is a great opportunity to show the video clip to the students on how the solar wind and its interaction with the earth's magnetic field cause the aurora borealis.

3. Activity: (20 minutes)

Away from the earth there are several different layers. List the four layers on the board and see if the students can put the layers in order. While doing this also include information about each layer.

Troposphere Layer is the closest layer to the earth and extends up

approximately 12-13 miles. Most aircraft and clouds are found in this layer. **Stratosphere Layer** extends from about 13 miles to 31 miles. The ozone layer is found here.

Mesosphere Layer extends approximately 32 to 60 miles above the earth.

Ionosphere Layer extends from approximately 60 to 600 miles above the earth. Meteors, rockets, satellites, space shuttles, and the aurora are found here.

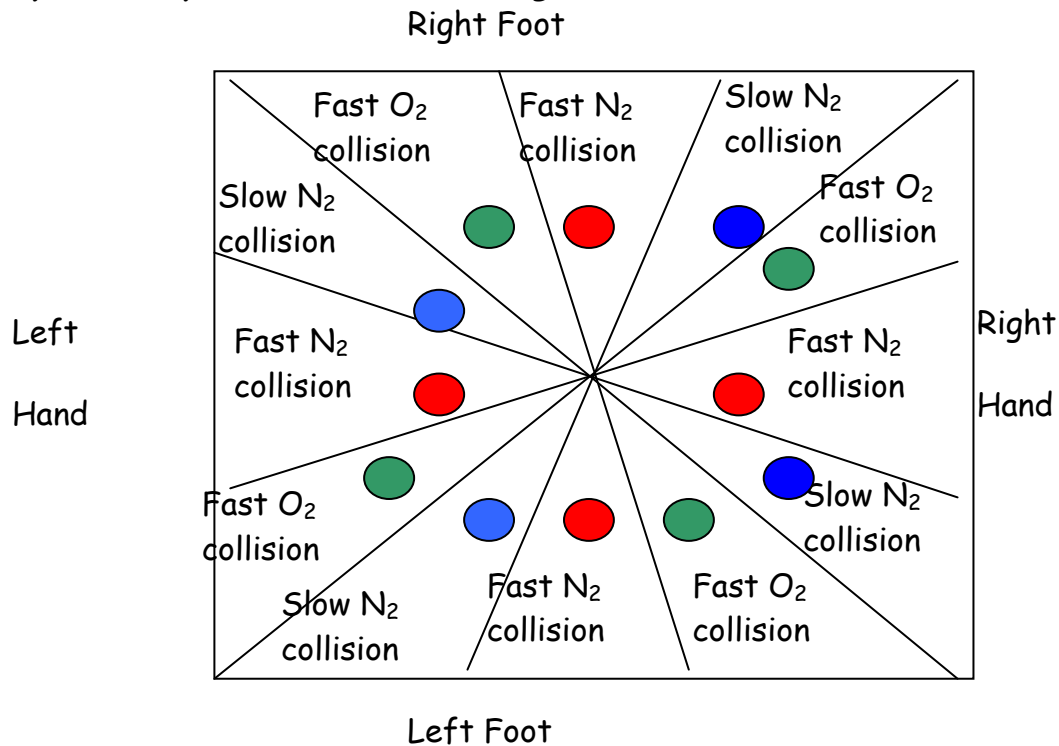
In order to check and see if the students were paying attention it is time to bring out Holy Ionosphere Batman! Have a few students volunteer to go out in the hallway. Once the students leave pull out the felt board with the different layers of the atmosphere on the board. Place the names of the layers on the board, and review the pronunciation of each layer. Once they have the names down bring your first volunteer back in and see if they can put the layers of the atmosphere in order in less than a minute. Have one student in the class record how the first volunteer placed the order of the layers on the felt board. Bring in the second and third volunteer and repeat the process. Once all of the volunteers had the orders, write all three volunteers orders on the board. The students that were not in the hallway should be checking to see if the students are correct. At the end have the entire class list the layers of the atmosphere in order.

4. Activity (20 minutes)

Now that the students understand why we have the aurora borealis and the various layers it is important to discuss why we are able to see the various colors. In order to explain these processes ask the students what colors did they see when watching the video? Was there any color that appeared more frequently than others? Why? How many of you enjoy a good game of Twister? In order to learn about the different colors we see we are going to play the game Twister. Bring out the Twister boards and learn why we see the colors that we do! Each atmospheric gas glows with a specific color depending on whether it is ionized or neutral, and the energy of the particle hitting the atoms and air molecules. The main colors of the aurora are blue, green, and red. The other colors that we see are combinations of these colors. The different colors occur due to the gases involved (Nitrogen and Oxygen) and the collision rate with the electrons.

Sooooo, spread out the twister boards 4-6 kids per board. Explain to the students that everyone is going to be a charged particle. In order for the colors to be displayed electron particles either collides at a fast speed or at a slow speed. When they collide at a certain rate and with the correct atom they will create an aurora. On the spinner there will be right foot, left foot, right hand, and left hand. When the teacher spins the spinner, it will land on one of the following three choices: a fast collision oxygen atom, a fast collision nitrogen atom, or a slow collision nitrogen atom. The students will need to figure out what color is created with the collision of electrons and atoms. When they have figured out what color is created they will need to place either their hand or foot on the appropriate color on the twister board.

The Spinner may look like the following:



Their mission - strike the correct molecule to produce the aurora being called out. Review with the class what causes the different colors.

- v **Green** - fast collisions with oxygen atoms in the upper atmosphere
- v **Red** - the lower red fringe that you see on some auroras is caused when fast electrons collide with nitrogen. A 'blood red' aurora is caused when slow electrons collide with oxygen
- v **Blue** - this color we usually don't see because it is hard for our eye to detect the blue in the dark night sky. Blue is caused when slow electrons collide with Nitrogen atoms

If the students have a hard time remembering what electrons collide with what molecule to form their color they could look at a poster to identify which color they are attempting to make.

For Example: If the teacher says "Fast Oxygen collision Left Foot" the students will need to react and place their left foot on a green space. The teacher can walk around to see if the students placed their correct hand or foot on the appropriate color.

5. Closure: (10 minutes)

The students will be instructed that tomorrow they will be asked to use the information that they learned about today to create a poem or song about the northern lights. To conclude the lesson "Twinkle, Twinkle, Big Bright Lights" the teacher will ask the students to list the layers of the atmosphere. Explain what electron collides with an atom to form the vibrant lights of the aurora borealis. The students will also explain why the solar wind impacts when and why the northern lights occur. Keeping all of this information in mind will help them in tomorrow's activity.

Modifications:

When playing the game Twister some of the students may not be able to connect the electron and atom hitting together, so by placing the poster on the board that may help a few of the students. Making sure that you have enough supplies for all of the activities will be important. For students that become a bit too rough, have the student/students sit out for safety reasons. If they settle down give them the opportunity to rejoin the game.

TWINKLE TWINKLE BIG BRIGHT LIGHTS



Procedure (1 hour 10 minutes)

1. Anticipatory Set: (5 minutes)

Quickly review from the day before about the layers of the atmosphere, the colors that are made from the aurora borealis, and why the northern lights occur. After you quickly review this information and write it on the board explain the next activity.

2. Activity: (35 minutes)

Being creative and silly can sometimes help them to remember information. Students will be expected to create either a song to a common nursery rhyme or a poem in a group of 3-4 or individually. They will need to use the information from the previous day and incorporate it into their song or poem. It will need to include how the colors are formed, the different layers of the atmosphere, and information about why the northern lights occur. The students can incorporate the information, however they choose, but it needs to be included. As they begin working on their song they will need to pick a nursery rhyme song and start from that point. They may want to figure out what they want to include first and write the order down before they try to incorporate it into a song. The students will be given a rubric to follow. As the students are working on this the teacher will be walking around assisting those with questions or those that are stuck. The teacher will also be checking to make sure that the students are completing what is expected of them. If the students become distracted the teacher can remind them of the task at hand. As they finish have the students present their final song to the teacher, the teacher can make suggestions or offer words of encouragement. As the students complete their song remind them to practice since they will be performing it in front of the class.

3. Closure: (15 minutes)

Students will present their song to the class. The teacher may need to remind the students to speak loudly, have good eye contact, and if they want dance moves. The students should have fun with this and discover that learning can be fun and enjoyable.

Modifications:

Recognizing that some of the students may not want to present in front of the class by allowing them to write or work on a poem individually will accommodate these students. Some students may become so excited about creating their own song they may become distracted and get off task. Gently remind the students of the time and what is expected at the end may keep them on their task.

Assessment:

After completing the movie, power point, Holy Ionosphere Batman, and Twister the students should know why the northern lights occur, how the colors are formed, and the various layers in the atmosphere. Using this knowledge they will need to work in a group of 3-4 students to create a song to a common nursery rhyme talking about the various information they learned about throughout the lesson. If they do not want to create a song they can work individually and write a poem about the same information. The students will be given a rubric to follow as they create their song or poem.

Extensions:

1. Allow the classroom to present their songs to other classrooms within the same building. Give students time to practice their song so that they perform well in front of the audience.
2. Students that are interested may do more research comparing and contrasting the similarities and differences between the northern and southern lights (Aurora Australis.)

Students can go to the site: <http://www.gedds.alaska.edu/AuroraForecast> to see the auroral forecast which shows where the Northern lights are forecasted to be seen for that night. Will the students be able to see them from their city? Where in Alaska would one be able to see the Northern Lights?

Task



Being creative and silly can help recall information.

1. You will be expected to create either a song to a common nursery rhyme or a poem in a group of 3-4 or individually.
2. You will need to use the information from the previous day about aurora borealis and incorporate it into your song or poem.
 - *Include how the colors are formed*
 - *The different layers of the atmosphere*
 - *Information about why the northern lights occur.*

*You can incorporate the information, however you choose, but it **NEEDS** to be included. **GOOD LUCK** and have fun! We will be presenting these in front of the class.*

Hint:

As you begin working on your song you will need to start by picking a nursery rhyme song and start from that point. You may want to figure out what you want to include first and write the order down before you try to incorporate it into a song.

Twinkle, Twinkle, Big Bright Lights



TWINKLE, TWINKLE, BIG BRIGHT LIGHTS

YOU HELP US TO SEE AT NIGHT

Refrain

HOW I WONDER WHY YOU'RE HERE

WAY UP IN THE IONOSPHERE

Refrain

BRIGHT RED, SOFT BLUE, BRILLIANT GREEN

THESE ARE THE COLORS THAT WE'VE SEEN

Refrain

GREEN FORMS FAST WHEN MOLECULES COLLIDE

OXYGEN AND ELECTRONS GO FOR A RIDE

Refrain

JUST LIKE GREEN, RED FORMS QUITE FAST

ELECTRONS AND NITROGEN BUMP WITH A BLAST

Refrain

BLUE FORMS GENTLE, CALM, S L O W L Y

THAT'S WHY IT'S SO HARD TO SEE

Refrain

TWINKLE, TWINKLE, BIG BRIGHT LIGHTS

WE DECORATE THE ALASKAN NIGHTS

Refrain:

BREAK IT DOWN!!! - SOLAR WINDS, SOLAR WINDS, SOLAR WINDS

Northern Lights

Student Name: _____

CATEGORY	4	3	2	1
Flow & Rhythm (Sentence Fluency)	All sentences sound natural and are easy-on-the-ear when read/sung aloud. Each sentence is clear and has an obvious emphasis.	Almost all sentences sound natural and are easy-on-the-ear when read/sung aloud, but 1 or 2 are stiff and awkward or difficult to understand.	Most sentences sound natural and are easy-on-the-ear when read/sung aloud, but several are stiff and awkward or are difficult to understand.	The sentences are difficult to read/sung aloud because they sound awkward, are distractingly repetitive, or difficult to understand.
Content - Accuracy	At least 6 accurate facts are displayed in the song/poem.	5-4 accurate facts are displayed in the song/poem.	3-2 accurate facts are displayed in the song/poem.	Less than 2 accurate facts are displayed in the song/poem.
Attitude	Never is publicly critical of the project or the work of others. Always has a positive attitude about the task(s).	Rarely is publicly critical of the project or the work of others. Often has a positive attitude about the task(s).	Occasionally is publicly critical of the project or the work of other members of the group. Usually has a positive attitude about the task(s).	Often is publicly critical of the project or the work of other members of the group. Often has a negative attitude about the task(s).
Focus on the task	Consistently stays focused on the task and what needs to be done. Very self-directed.	Focuses on the task and what needs to be done most of the time. Other group members can count on this person.	Focuses on the task and what needs to be done some of the time. Other group members must sometimes nag, prod, and remind to keep this person on-task.	Rarely focuses on the task and what needs to be done. Lets others do the work.

Reflection Paper

I designed this unit for our 4th grade teachers and in order for them to follow the layout of the lesson I created lesson plans to help guide them along. I am excited to hear how the lessons go in the spring. I have taught many of these lessons myself and now created a unit plan for others to use. I envision areas of strengths and weaknesses that might arise through the lessons.

Strengths:

This unit is filled with challenges and rewards to the students. The students will be debating for the first time and learning what a debate is. They will be taking on the roles as real people and pretending to be that person. Each student will be reading and researching material that is at their reading level. Students will learn through research, newspaper articles, powerpoint stories, and a chapter book. There are a wide variety of strategies to help students learn and accommodations ready if needed. The unit is filled with hands-on experiences, which allows some students to learn very well.

Weaknesses:

There are many strengths of this unit, but I foresee some areas of concern. It will take some time on the teacher's part to find a variety of books to facilitate reading/research. The teacher may also need to find articles online to aid the students. The amount of time allotted for each of the activities may not be enough depending upon the level of the students. After looking at the unit again, parts of it may need to be revised for time. All the lessons relate, but time may be an issue. Some of the lessons

are a bit on the messy side, so making sure as the teacher you are prepared and ready to handle the situations if they arise.