## Social Studies Thematic Unit

Developed by Becca Flanders 3<sup>rd</sup> grade

Theme: Climates

Goals: Students will understand what a climate is and how climates differ, why climates are formed, how climates are changing because of global warming, and what they can do to prevent global climate change.

Rationale: With global warming's effects surfacing in the news daily, it is becoming more and more evident that climate change will be a critical issue affecting today's school children as they grow into adults. It is imperative that students in this day and age be able to understand what a climate is, why climates exist, and how their earth's climates are changing if there is any hope of our earth surviving for them to enjoy in years to come.

#### Indiana Social Studies Standard:

3.3.2 Explain basic Earth/Sun relationships, including how they influence climate and identify major climate regions of the U.S.

# Objectives:

Upon completion of this unit, students will explain the concept of climate with 100% accuracy.

Upon completion of this unit, students will be able to identify the 4 of the major climate regions in the U.S.

Upon completion of this unit, students will identify 3 ways that humans impact the climate.

Upon completion of this unit, students will identify 3 ways that they can help minimize their impact on the earth's climates.

Assessment: What is a climate?
What causes the earth to have different climates?
What are some examples of different climates we have here in the United States? (List at least 4 examples)
How have human activities affect the earth's climates and made things worse? (List at least 3 examples)
What are three ways that you can help prevent the earth's climate from changing?

**Lesson:** Graphing Climate (Precipitation, and Temperature)

**Length:** 30 minutes

**Age or Grade Intended:** 3<sup>rd</sup> grade

**Source:** original <sup>©</sup> with statistics used from www.worldclimate.org

#### **Academic Standard:**

Social Studies Unit Theme:

3.3.4 Explain basic earth/sun relationships, including how they influence climate and identify major climate regions of the U.S.

# Performance/Behavioral Objectives:

Given annual precipitation and temperature data for 4 climate regions, students will create a graph to represent the data, with 100% accuracy.

**Assessment**: To assess this project, the teacher will grade the worksheets(see attached). The first worksheet entitled "My Prediction Sheet" will not be graded, it simply serves the purpose of helping students to start thinking and activating their background knowledge.

# **Advanced Preparation by Teacher:**

To prepare for this lesson, the teacher must make copies of the attached worksheets, enough so that each child has their own copy. The students will need colored pencils for this activity. The teacher might also want to obtain visual aids to show the students how the data they will be using is obtained (a rain gauge and a thermometer). Lastly, the teacher should have a map of the United States to use to locate the cities used in this lesson on.

#### Procedure:

#### **Introduction/Motivation:**

To begin, show the visual aids. Ask the class if they know what these are used for. When you explain that one is for measuring rainfall, and the other is for checking the temperature, ask the class, "why are different places on earth hotter or colder than others? And why do someplace get a lot of rainfall and others don't? (Blooms: Knowledge) Explain that it's okay if you don't completely understand that concept yet, because today we are going to learn more about it!

- -Write the names of the four cities used in this lesson on the board.-
- -Have the class locate the cities on the map. (Visual Spatial Intelligence)
- -identify which climate region each city falls into
- -Explain to the class that today we will be comparing data from these 4 different climate regions to learn more about what it's like in these climates throughout the year.
  - -Ask the class, "Is climate the same as weather?" (Blooms: Analysis)
- -Explain that weather is what we see on a day to day basis. Climate is the overall patterns of weather over a whole year.
  - -Discuss what the term average means.
  - -Discuss the term precipitation

- -Pass out the "My Predictions" worksheet. Have students make predictions about what they think the data will look like, based on what they already know about a particular climate region (Blooms: Analysis) (Logical Mathematical Intelligence)
- -Pass out the data sheet. Ask the class, "What might be a good way for us to represent the data on this sheet?" (Blooms: Analysis)
- -Great idea! Let's make a graph! Pass out the graphing worksheet and the 2 graph papers. Review the instructions, remind them to use their graph checklist, ask if there are any questions
  - -set the students free to work on their graphs (<u>Logical Mathematical Intelligence</u>)
  - -When they finish the graphs, they may begin on the second worksheet.

**Closure:** To conclude, have the students share with the class what surprised them, and what data was just what they would have expected. Discuss their answers to the question: Why are different places on earth hotter, colder, rainier, etc. Clarify and help students come to the understanding that the proximity to the sun is the driving force behind all the differences they saw in their data.

**Accommodations/Enrichments:** For the children in my class that have MiMH I would simplify their data sheet to just include the average number so that they weren't so confused by all the monthly numbers.

For students that need a challenge, I would ask them to look for seasonal differences as the months progressed and graph the monthly data for a particular climate. I would ask them to think about why season occur and how that also relates to the sun/earth relationship.

#### **Self Reflection:**

My Climate Predictions
Which climate region will have the most precipitation in a year and why?
Which climate region will have the least precipitation in a year and why?
Which climate region will have the highest temperatures and why?
Which climate will have the coldest temperatures and why?
What climate will have the most change in precipitation over the year and why?
What climate will have the most change in temperature over the year and why?

Name:\_\_\_\_

Name:
Graphing Climates
Use the information above to create a graph.  1. Get out a pink, blue, green and orange colored pencil. pink = rainforest, green = forest, blue = tropical, orange = desert  2. Use graph paper to make a bar graph to represent annual rainfall  3. Make a graph to represent average temperature.
Were any of your predictions right? Explain:
What things surprised you?
Why don't all the places in our country have the same temperature and precipitation (hint: think about the sun)?
What do you still not understand about climates

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	Tropical	Forest	Desert	Prarie

# <u>Graph Checklist</u>

Ι	gave my graph a title
Ι	made a color key
Ι	labeled the axis

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	Tropical	Forest	Desert	Prairie

**Lesson:** Introduction to Earth Sun Relationships incorporating P.E.

**Length:** 30 minutes

**Age or Grade Intended:** 3<sup>rd</sup> grade

Source: original ©

#### **Academic Standard:**

Social Studies Unit Theme:

3.3.4 Explain basic earth/sun relationships, including how they influence climate and identify major climate regions of the U.S.

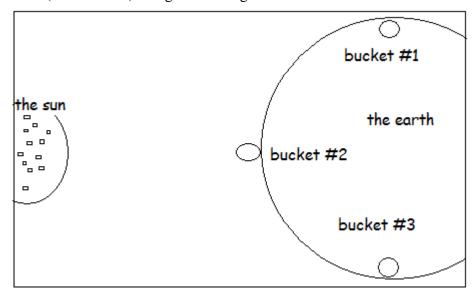
# Performance/Behavioral Objectives:

After participating in the lesson, students will explain that the amount of heat a location on earth receives from the sun is related to how far away that place is from the sun with 100% accuracy.

**Assessment**: Students will use a diagram of the earth and the sun on a handout to write a brief explanation of what they learned. This will be placed in their unit journal.

# **Advanced Preparation by Teacher:**

To prepare for this lesson the teacher must find large place where children can run around outdoors. The teacher must also mark on the surface of that area a "sun" area as well as a "earth" area as show in the picture below. Three buckets must also be obtained and placed at the locations shown below. Bucket #1 should be labeled as "the North Pole," bucket #2 should be labeled as "the equator" and bucket #3 should be labeled "the South Pole." The teacher must create at least 100 small pieces of yellow paper which will be "sun rays." These should be place within the boundaries of "the sun" For the second activity the teacher will need a large bucket with water in it and 3 small cups with a whole in the bottom of them. Lastly, the teacher must prepare a handout (see attached) and gather enough rulers so that each student has one.



#### **Procedure:**

#### **Introduction/Motivation:**

The teacher should begin the lesson by activating the students background knowledge about climates. Have a brief discussion about what the students already know about differences in the world's temperatures. Explain that today we are going to try to discover why some parts of the world are always cold, and other parts of the word are always hot, and why some are just "in between"

- -Divide the students into 3 groups. Each group will be assigned to either bucket #1, #2 or #3. Explain that each bucket represents a place on the earth (North Pole, South Pole, or the Equator). Their job is to run as fast as they can and bring "sun rays" from the sun to their team's bucket. They must only carry one "sun ray" at a time and when the whistle blows they must freeze where they are and wait for instructions. (Bodily-Kinesthetic)
  - -Ask if there are any questions
  - -Let the game begin! Allow the students 2 minutes and then blow the whistle.
- -Gather the students and their buckets to discuss what they discovered. Count which bucket got the most "sun rays" (should be the equator). (Logical-Mathematical)
  - -ask:
- -"Was there a difference in distance that each team had to travel to their bucket? Who traveled the most? Who traveled the least? "(Bloom's: Knowledge)
- -"Why do you think the Equator team got the most "sun rays" in their bucket?" (Bloom's: Analysis)
  - -Pass out the diagram sheet that was prepared ahead of time.
- -Explain that the sun's heat travels to the earth in rays. Ask the children to draw a ray on their diagram that reaches the "North Pole", and draw another ray on their diagram that reaches the "South Pole" Ask the students to measure the rays that they drew with a ruler. (Logical Mathematical)
  - -"Which ray that you drew was the longest/shortest?" (Bloom's Knowledge)
- -"How might the distance that the ray travels, affect the amount of heat that reaches the earth?" (Bloom's: Analysis)
- -say, "Let's explore this! Now we are going to play a second game that is similar to the first game. This time, instead of carrying "sun ray" packets, you will carry your "sun rays" as water in a cup that has a hole in the bottom. The water will represent the amount of heat that is coming from the sun to the earth."
  - -Let the second game begin! Allow the students 2 minutes and then blow the whistle.
  - -gather the students and their buckets to discuss what they discovered this time.
  - -ask, "What happened to the "sun rays" as you ran along?" (Bloom's: Knowledge)
- -ask, "How might this new game help us understand how the distance that the ray travels affects the amount of heat that reaches the earth?" (Bloom's: Application)
- -Explain how this is like the sun rays that come from the sun. If they must travel a long distance, some of their heat is lost, just like water was lost from the cup when it traveled a long distance.

Closure: Underneath the diagram on the handout, have the children write a brief explanation of sun rays and how they travel. (Linguistic Intelligence) Ask them to include the differences they noticed from doing the activities between the sun rays that reach the Equator and the sun rays that reach the North Pole or South Pole and how the distance that sun rays have to travel, affects how much heat reaches the earth. Have them spread out and sit with a partner while they write. They may talk to their partner about this and share ideas.

Accommodations/Enrichments: For the children in my class that have MiMH I would have them work with an understanding and reliable partner for the final assessment. I would come to their groups specifically and talk through everything with them. If a student has mobility limitations, they could still participate in this lesson. They could remain at the "sun" area and be responsible for handing students "sun rays" as they come running up. To challenge all the students in the class, I could pose an extra question that they could write about on their handout: "how do you think the distance from the sun, affects the kinds of plants and animals that are found in a particular place on earth."

# **Self Reflection:**

-I will know that my lesson was effective if students are able to make a connection between the activities and the actual earth sun relationship. I will assess this by carefully looking over what they wrote on their handout.

**Lesson:** Music Reflection **Length:** 30 minutes

**Age or Grade Intended:** 3<sup>rd</sup> grade

Source: Original

#### **Academic Standard:**

Social Studies Unit Theme:

3.3.4 Explain basic earth/sun relationships, including how they influence climate and identify major climate regions of the U.S.

# Performance/Behavioral Objectives:

After listening to the song, "Waiting on the World to Change," by John Mayer, students will participate in a class discussion about how the song relates to climate change and global warming.

**Assessment**: The teacher will assess the students by listening to the input they give in the class discussion and also by reading their reflection in their journals about their reactions to the song and the class discussion.

# **Advanced Preparation by Teacher:**

To prepare for this lesson, the teacher must have a cd or mp3 player with the song, "Waiting on the World to Change" on it. The teacher must also have a means of playing this song so that the whole class can hear it. Lastly the teacher needs to print copies of the lyrics for every student in the classroom to have their own.

#### **Procedure:**

#### **Introduction/Motivation:**

The teacher should begin the lesson by explaining that they are going to listen to a song. Say, "This is a very special song to me personally. When I hear this song it brings some important things to my mind. I'm not going to tell you what it means to me, because I want you to listen very closely and find your own meaning in the song. While you are listening and following along with the lyrics, I want you to be thinking about how this song could relate to the things we have been talking in class about global warming and climate change."

- -Ask the students to clear their desk and leave nothing but their journals and their pencils on top.
  - -Ask the students to form a circle sitting down in the "carpet area."
  - -Pass the lyric sheets out.
  - -Play the song for the students (Musical Intelligence)
  - -After the song is completed, read the lyrics together as a class.
  - -Pause to dissect parts of the song with the students.
  - -Ask: when you hear this song, what comes to mind for you? (Blooms: Synthesis)
- -What might the singer mean when he says, <u>waiting</u> on the world to change, why does he feel like he has to <u>wait</u>? (Blooms: Analysis)
  - -What does, "our generation" mean? What is a generation? (Blooms: Knowledge)

- -What kinds of things need to be changed in our world do you think? (Blooms: Evaluation) (Interpersonal Intelligence)
- -What do you think the singer/songwriter would say if we interviewed him about what his song is about? (Blooms: Synthesis)
- -Do you think that global warming is something we are "waiting" on the world to change? (Blooms: Evaluation)
- -Is <u>waiting</u> the right thing to do? Should we do <u>more</u> than wait? (<u>Blooms: Evaluation</u>)

**Closure:** After everyone has had a chance to speak as many times as they would like. Play the song one more time. Encourage the students to close their eyes if they wish and envision what they would like to see changed. Then have the children silently return to their seats to their journals. Allow 5 minutes for the students to reflect on their thoughts in their journals (<u>Interpersonal Intelligence</u>).

**Accommodations/Enrichments:** For the student in my class that has MiMH I would sit next to him and point to the words on this lyrics sheet as a read the lyrics aloud to the class. I would also bring a "window frame" out of construction paper so that when we are talking about specific parts of the song, he can "frame" those parts to focus just on those. To enrich the activity, I would ask the students to come up with their own questions or topics to pose to the group. I would also ask them if there were any other songs they could think of that reminded them of things about the world that needed to be changed especially in relation to climates and global warming. They could bring these songs in and share with the class the next day.

# Waiting On The World To Change By John Mayer

me and all my friends
we're all misunderstood
they say we stand for nothing and
there's no way we ever could
now we see everything that's going wrong
with the world and those who lead it
we just feel like we don't have the means
to rise above and beat it

so we keep waiting waiting on the world to change we keep on waiting waiting on the world to change

when we're standing at a distance so we keep waiting waiting on the world to change now if we had the power to bring our neighbors home from war they would have never missed a Christmas no more ribbons on their door and when you trust your television what you get is what you got cause when they own the information, oh they can bend it all they want

that's why we're waiting waiting on the world to change we keep on waiting waiting on the world to change it's not that we don't care, we just know that the fight ain't fair so we keep on waiting waiting on the world to change

and we're still waiting
waiting on the world to change
we keep on waiting waiting on the world to change
one day our generation
is gonna rule the population
so we keep on waiting
waiting on the world to change

we keep on waiting waiting on the world to change

**Lesson:** Climate Artwork **Length:** 45 minutes

**Age or Grade Intended:** 3<sup>rd</sup> grade

Source: original ©

#### **Academic Standard:**

Social Studies Unit Theme:

3.3.4 Explain basic earth/sun relationships, including how they influence climate and identify major climate regions of the U.S.

# Performance/Behavioral Objectives:

After discussing the characteristics of major climate regions in the United States, students will create 4 artworks that depict at least 2 characteristics of each climate region.

**Assessment**: Students will write caption statements for their artworks that explain the two characteristics of the climate that they included. I will check these and also listen as they present their artworks to the class.

# **Advanced Preparation by Teacher:**

In order to prepare for this lesson, the teacher must obtain quality art paper that can be used with a variety of art mediums, enough so that each student can have 4 pieces. The teacher must also gather art supplies such as colored paper, magazines, glue, scissors, markers, colored pencils, tissue paper, crayons, pastels, watercolor and tempera paint.

#### **Procedure:**

**Introduction/Motivation:** say to the class, "We have been learning a lot about what different climate regions in the U.S. look like, today we are going to use what we've learned to make artwork from every different climate. To begin, listen to these poems and descriptions of the different climates you are going to draw, lay your head down on the desk and close your eyes if you wish." (read attached descriptions)

# **Step by Step Plan:**

- -Explain to the class that they are going to create a piece of artwork to represent each of the climates in the U.S. They can use whatever materials they want. They must include at least two characteristics of the climate in their picture. (This could include animals that live there, weather patterns, location, etc.)
- -They should create 4 artworks that depict the prairie, desert, temperate forest, and tropical/costal climates.
- -They should write a brief caption on the back that describes what 2 characteristics of that climate they included.
- -Let the children loose to be creative! © (<u>Visual Spatial Intelligence</u>) (<u>Blooms:</u> Synthesis)

# **Closing:**

- -When the students are done working, gather as a group
- -Each child should share their favorite piece of climate art work and point out the two climate characteristics that they depicted (<u>Interpersonal Intelligence</u>)

**Accommodations/Enrichments:** Some students may benefit from having the poems posted on the board for them to reference, or being reminded of characteristics or examples of certain climates. A challenge for students could include coming up with a poem for the Midwest's climate.

**Self Reflection:** I will know this lesson was successful if students enjoy it and are able to include at least 2 characteristics in their artwork for each climate.

#### The Prairie

Though beautiful, the prairies were also hazardous. Summer brought mosquitoes and flies which pestered the animals. There are many accounts of animals bleeding and dying as a result of insect bites. The summer sun was unbearably hot, and the treeless prairies offered no shade for the traveler or farmer. Fall brought the threat of fire. The vast expanses of prairie grass became dry, and lightning or a careless person could set these vast expanses ablaze. Winter brought freezing temperatures, blinding blizzards and deep snow drifts which immobilized both the pioneer and animals. Warm spring weather melted the snow and turned the prairies into vast swamps and bogs which proved treacherous to travelers

The prairies in this state are charming - great stretches of flat land, covered with wild meadows which are hemmed by thin forests. The prairies are covered all summer long with flowers that change color every month yellow, blue, then red. By wandering from one meadow to another, one encounters a series of surprises. Huge green surfaces of unbelievable high grass which waves in the wind like a sea against a wooded background more beautiful than the English parks. These prairies are from ten to one hundred miles across, because of their size one can travel over them by horse only. In the winter, when the trails are covered with snow, people get lost and cannot find shelter. I have heard of instances when travelers, lost in the snow on the prairies, have had to slit the bellies of their horses for warmth of their bodies. In summer the brairie insects are so numerous that the horses often are stung to death by them. Therefore, one must travel during the night or the early morning hours. Flies settle by the thousands on the horses, and after a ride of several hours the blood can be seen trickling down their sides. To get relief from these pests, a horse will break into a fast gallop.

Descriptions of the Prairie from early pioneers. Source: <a href="http://ed.fnal.gov/data/life\_sci/letters/ltrs\_prairie.html">http://ed.fnal.gov/data/life\_sci/letters/ltrs\_prairie.html</a>

#### The Desert

Clash by Alexia Ben-Shabat (6<sup>th</sup> grader)
Lightening falling in the desert
Smashing like a hammer
Geckos scurry behind a bush
Snake slithering to its burrow
Mountains shading the ground
Cactus giving details to the desert
Coyote howling to figures of the night
Rabbits jumping away from shadows
The smell of rain giving color to earth
The Sonora Desert

The Secret Place by Elizabeth Rosenburg (3<sup>rd</sup> grader)
Two bright little beady eyes
Peering down at me. A feathered
Little body perched high in a
Saguaro. Silent, watchful . . .

I wander through the desert. A cotton tail darts by me. A Lizard scurries under a rock. The beady eyes stay focused.

A morning dove calls out. The sun is not yet hot, the desert is pleasant I glance back to see the cactus wren Still watching me, waiting, wondering . . .

I come in peace, to share the beauty Of a secret place in my back yard. I Will not hurt you, I try to tell it - but as I speak, it flies away.

# **Tropical Regions**

# Hawaii

Hawaii is the best state I know,
Where there is always sun, never snow.
The ocean waves with its gentle breeze,
Surrounded by tropical palm trees.
At sunset, the ocean is clear,
While famlies of dolphins swim so near.
The sun is setting with its tropical ways,
But soon you will wake up, to another tropical day.

# Beach Girl

I step onto the burning sand,
With my orange surfboard in hand.
The hot sand that I feel,
Makes the beach seem so real.
The ocean breeze blows my hair,
And seagulls fly around everywhere.
I swim out into the sea,
And spot a wave then count to three.
Soon I see my feet on the board,
And then I begin to soar.
After I catch a few more waves,
I see the sand castle that we made.
We go to the boardwalk and look at the ocean,
And see the waves in perfect motion.

#### Source:

http://dakdmk.tripod.com/id8.html

**Lesson:** Climate Dioramas **Length:** several class periods **Age or Grade Intended:** 3<sup>rd</sup> grade

Source: original ©

#### **Academic Standard:**

Social Studies Unit Theme:

3.3.4 Explain basic earth/sun relationships, including how they influence climate and identify major climate regions of the U.S.

**Performance/Behavioral Objectives:** After learning about basic earth sun relationships, students will create their own diorama to accurately represent the revolution of the earth around the sun.

**Assessment**: I will check their dioramas for completion. I will look to see if they included a way to show how the earth rotates around the sun, labeled the earth's equator, and showed how the earth rotates on its axis. I will also ask the students to use their dioramas to explain to me how the earth and the sun are related and how different climates are formed from this relationship.

## **Advanced Preparation by Teacher:**

In order to prepare for this lesson, the teacher must collect a variety of items that students can use for their dioramas. These items may include but are not limited to, shoe boxes, styraphome balls, ping pong balls, pipe cleaners, paint, glue, string, fishing line, tin foil, balloons, etc. This lesson is designed to build on prior information learned about relationships between the earth and the sun. Thus in preparation for this lesson, the teacher must have also taught about the relationship between the earth and the sun.

#### **Procedure:**

**Introduction/Motivation:** Brainstorm as a class all the things that the students have learned thus far about how the earth is influenced by the sun (<u>Bloom's Knowledge</u>). Write ideas on the board. Ask the students what a "model" is (a term they should already be familiar with from previous science lessons ((<u>Bloom's: Knowledge</u>)). Explain to the class that today we are going to create our own models. Say, "these models will help us show off all the things we have learned so far about the earth and the sun!"

- -Using the ideas written on the board, decide as a class what things that have been learned are most important to include in the dioramas. (Bloom's Analysis)
  - -Show the students the objects that you brought in for them to use.
- -Brainstorm ideas of how the students could show these characteristics of the earth and sun's relationship using these objects. Help them to think of items to use for the sun, the earth, and how they will show that the earth rotates around the sun.
- -Set the children free to work on their projects. (<u>Visual Spatial Intelligence</u>) (<u>Logical Mathematical Intelligence</u>) (<u>Bloom's: Synthesis</u>) It is essential that the teacher is actively

involved in this part of the lesson, some students might be at a loss for where they should begin; help kids bounce ideas off each other.

# **Closing:**

- -After students clean up and find a safe designated place to put their projects, ask them to meet at the carpet.
- -Talk as a class about what is going well with the project and what problems people are having. Assess whether you need to get more supplies.
- -The students will not finish this project in one day. Another class period may have to be allowed and the rest assigned as homework.

Accommodations/Enrichments: The teacher might need to help students with MiMH to come up with some ideas for how to start the project. The teacher should not tell the student, but rather ask questions to help the student formulate their own ideas. Encourage students to talk to their classmates if they are stumped. Tell them to take a walk around the room and check out other neat ideas. Emphasize that sharing ideas is great, and it is different than just copying. This project is great for kids who need an extra challenge because it provides the opportunity to go into great detail if desired. If a student finishes early, the teacher should take a few minutes to conference with the student and challenge them to think of some ways to incorporate more aspects of the earth/sun relationship or even add a caption to their diorama.

# **Self Reflection:**

**Lesson:** Climate Posters **Length:** 30 minutes

**Age or Grade Intended:** 3<sup>rd</sup> grade

**Source:** original

#### **Academic Standard:**

Social Studies Unit Theme:

3.3.4 Explain basic earth/sun relationships, including how they influence climate and identify major climate regions of the U.S.

# **Performance/Behavioral Objectives:**

After learning about climate change, students will create a poster to be hung in the school that incorporates a message they would like to send to their peers about global warming with 100% participation

**Assessment**: To assess this project, the teacher will have the class present their posters. The teacher will use the attached rubric to assess the students on

# **Advanced Preparation by Teacher:**

To prepare for this lesson, the teacher must gather a variety of crop items that are grown in the U.S. Examples of crop items could be corn, oranges, cotton, grapes, apples, bananas, potatoes, blueberries, etc. The teacher must also prepare cards for each crop item that contains brief information about what conditions are needed for these crops to grow. The teacher should also create a blank map of the United States, enough so that each child has a copy. Lastly, the teacher must create stations throughout the room. At each station, one crop item and it's matching description card should be located.

#### **Procedure:**

#### **Introduction/Motivation:**

The teacher should begin the lesson by displaying all the crop items she brought in. Ask the class if all of these items can grow in Indiana. Select a few example crops and discuss as a class what aspects of Indiana's climate would help or hinder these crops (<u>Bloom's Analysis</u>).

- -Divide the students into small groups of twos and threes (<u>Intrapersonal Intelligence</u>). Assign each group a station to start at.
- -Explain that each station there is a different crop item. Their job is to work together with their partner(s) to determine what climate region that crop would grow best in. They must then draw that crop item (<u>Visual Spatial Intelligence</u>) on their map in the climate region that they decided it would grow best in.
- -Review the expectations for station work. Explain the signal that will tell the students to switch stations.
  - -let the students loose (Bodily-Kinesthetic Intelligence)! Allow 1 minute at every station.

-When the students have completed all the stations have them return to the carpet area. Using a large map or overhead, have students share where they placed each crop item and why (Bloom's Analysis).

**Closure:** To conclude and assess the student's understanding, ask the students to return to their desk and take out a blank piece of paper. Ask the students to pick one of the crop items they worked with today that is grown in a climate other than Indiana. Ask the students to write 4-5 sentences about what climate region they believe that crop belongs in and why (<u>Bloom's Synthesis and Analysis</u>). Put an example on the board:

"Oranges "live" in Florida because it is warm and sunny (etc.)

Accommodations/Enrichments: For the children in my class that have MiMH I would have them work with a partner that would help motivate them. For one of my children in particular I might not ask him to fill out his own map as he rotates from station to station, but instead, point to the region that the crop should go on his partner's map. To enrich the activity, children can come up with ideas of other crops that I did not bring in and write about those too. They children could also write about if they would want to live in that climate (why or why not.)

#### **Self Reflection:**

**Lesson:** Stories from Different Climates

**Length:** 60 minutes

**Age or Grade Intended:** 3<sup>rd</sup> grade

**Source:** original

#### **Academic Standard:**

Social Studies Unit Theme:

3.3.4 Explain basic earth/sun relationships, including how they influence climate and identify major climate regions of the U.S.

#### **Performance/Behavioral Objectives:**

After listening to the speakers tell about the 4 climates, students will fill in a Venn-Diagram which includes at least one characteristic for every climate as well as one characteristic that all the climates have in common with 100% accuracy.

**Assessment**: To assess the students I will check their Venn diagram to see if they had at least one characteristic in each of the climate circles and at least one characteristic that all the climates had in common.

# **Advanced Preparation by Teacher:**

To prepare for this lesson the teacher must set up a date and time for four different guests to come visit the classroom. There should be one guest to represent each of the 4 climate regions that are being discussed (desert, tropics, temperate forest and prairie). Speakers can be anyone who has lived, currently lives or has traveled extensively in this climate zone. The teacher should explain what she wants the guests to talk about as well as provide them will the handout (see attached). The teacher must also have copies of the Venn diagram handout, enough so that each child will have one. Lastly, the teacher must create 4 large cards out of construction paper for thank you notes to the teacher.

#### **Procedure:**

#### **Introduction/Motivation:**

Explain in advance to the students that guests will be coming to their class to talk about all of the different climates! Get them excited! Build the anticipation! Review good listening skills so that students will be on their best behavior on the big day! ©

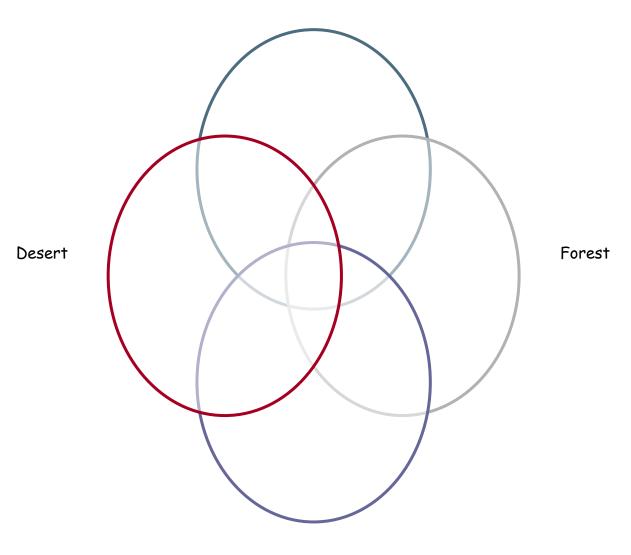
- -Introduce each speaker before they begin.
- -Applaud when the speaker is finished and facilitate the question and answer process (Interpersonal Intelligence).
- When the speakers have left, ask the students to return to their desks. Pass out the Venn diagram worksheet. Have the students work together with the students around their desk to fill it out according to the characteristics they heard from the speakers today (Blooms: Application). Explain that they must have at least one characteristic of each climate and then brainstorm together at least one characteristic that all the climates share.

**Closure:** Have the students sign large thank you cards for each of the guests. Encourage them to write one thing they learned from the speakers on the back of the card.

**Accommodations/Enrichments:** For the children in my class that have MiMH I would have them work with a supportive partner as well as come to their table often to encourage and assist them. I might also need to create a bigger handout for some students that have trouble writing small and neat. To challenge students, I will ask them if they can think of more than one characteristic to put in each of the Venn diagram circles.

#### **Self Reflection:**

# Prairie



Tropics

# Thank you so much for being willing to come to our class and share your stories with us!

The kids are very excited about meeting you and hearing what you have to say. I just want to share some background that might help you as you decide what you will share a story about.

will share a story about.
1.) The students are learning about climates in our current unit. They have learned what a climate is and why they exist (basic earth sun relationships). They are working on learning what areas of the United States have certain climates. We have broken down the US Climates into 4 basic climates: Prarie, Temperate Forest, Desert and Tropics. The climate that you will be representing is
2.) Your visit will be covering the storytelling aspect of our unit. So I would like you to think of a specific story or many a couple of small stories that help personify for the students what that climate is really like. An example of a very short story I might tell about my travels in Africa might be to tell about what it was like when I first saw the rainforest. It's up to yoube creative as you want! I just ask that you please keep it in the story format.
3.) Examples of things you may want to incorporate into your stories are descriptive words so that kids can picture in their head what you are talking about, discussion of plants in that climate, animals you have seen, temperature and weather as well as what the local people and cuisine are like there. If you have any pictures or artifacts you would like to share we would love to see that as well!
<ul><li>4.) We will listen intently to your story and then the kids might have a couple questions for you as well.</li><li>5.) Plan to be telling your story for 5-10 minutes.</li></ul>
Again THANK YOU THANK YOU THANK YOU!  We are so excited about having you come!  Please call me if you have any questions or concerns
We'll see you (date and time) in Room ©
Sincerely,

(Teacher Phone number, Teacher Email Address)

Miss Flanders

**Lesson Title:** Reading about America's Climates

**Age/Grade Intended:** 3<sup>rd</sup> **Lesson Length:** 45 minutes

Source: original ©

#### **Academic Standard:**

Social Studies Unit Theme: 3.3.4 Explain basic <u>Earth/sun relationships</u>, including how they influence climate, and identify major climate <u>regions</u> of the United States.

**Objectives:** After reading books about each of the 4 major climates in the US, students will create a list of at least 5 adjectives for each climate (20 words total) that accurately describe that climate.

**Assessment:** Students will be graded on completion of the attached worksheet. The teacher will know that the students understood the assignment if their words are adjectives or strongly descriptive in nature and if their words accurately described the climate.

Advanced Preparation by Teacher: The teacher must obtain a variety of books that represent the 4 major climate regions being studied (prairie, desert, temperate forest, and tropics). Approximately 5 books should be included for each climate zone. A list of book ideas is attached. The teacher must then create 4 stations in the room, one station for each of the climate zones. All that is needed for the stations is a sign indicating what climate is being represented and the collection of books. The teacher must also make copies of the attached worksheet, enough so that each student has one.

# **Procedure:**

**Introduction**: "We have been learning a lot about the different climates that exist in the United States. Let's review, what climate do we live in here in Indiana? (Temperate Forest) (<u>Blooms: Knowledge</u>). How would you describe our climate to somebody who lives in Florida? (<u>Blooms: Comprehension</u>) Why is it important to know how to describe a place to another person? (<u>Blooms: Application</u>)"

# **Step-by-step Instructions:**

- -Say, "Today we are going to get a chance to explore some books from each climate zone. We will be reading for pleasure and to learn about those climates from the books. While you are reading I also want you to be looking for words that describe that climate. What part of speech will these words be (Adjectives) (Blooms: Knowledge)"
  - -Show the class where each of the stations are
  - -Explain that they will have 15 minutes at each of the stations.
- -Explain that they may read quietly to themselves or chose a book to read aloud to a partner, or decide to read a book aloud as a group (<u>Interpersonal Intelligence</u>). Whatever they chose.
- -Hand out the worksheet. Explain that they will need to be looking for 5 descriptive words while they are reading that describe that climate (Verbal Linguistic Intelligence).
  - -Assign the students to groups

- -Assign each group a station to start at
- -Set students free to read, rotate and assist/re-focus as needed.
- -Have students switch groups every 10 minutes

**Conclusion:** After each group has been to each station, have the class return as a group to the carpet area with their worksheets. Choose 4 students that you observed working well/being on task. Ask the first student to share their words with the rest of the class. While the student is reading his words slowly, have the rest of the class close their eyes and paint a picture in their head using the words (<u>Visual Spatial Intelligence</u>). Then have the class open their eyes and raise their hand if they think they can identify the climate that was being described. Repeat until all climates have been covered. Briefly recap why it is important to use descriptive words. Conclude by telling the students that all of these books will be available for reading workshop time and that they may read them more during that time.

**Adaptations/Enrichments:** If this lesson were to be done during reading time, the students in my class with MiMH would be gone at the resource room for reading. I would want them to participate in this lesson because it will help them better understand the climates unit. For that reason, I would do this lesson during a time they would be in the classroom. During the station work, I would encourage them to read with a partner, as some of the books may be too difficult for them to read independently.

To challenge students in my class I will ask them to use the words that they wrote down to write a descriptive paragraph about that climate. They may add their own words as well.

Prairie	Desert
Tropics	Temperate Forest

Lesson Plan By: Becca Flanders
Lesson: Climate and Crops

Length: 30 minutes

Age or Grade Intended: 3rd grade

Source: http://www.lessonplanspage.com/SSUSClimateAndCrops24.htm

#### Academic Standard:

Social Studies Unit Theme:

3.3.4 Explain basic earth/sun relationships, including how they influence climate and identify major climate regions of the U.S.

#### Performance/Behavioral Objectives:

Given a crop item, students will use their prior knowledge of climate region characteristics to explain which climate region that crop is grown in with 100% accuracy.

**Assessment**: Students will write a short paragraph (four to five sentences) using the following prompt: "Oranges "live" in Florida because it is warm and sunny. Choose a crop from the list and tell why you would or would not want to live where it grows."

# Advanced Preparation by Teacher:

To prepare for this lesson, the teacher must gather a variety of crop items that are grown in the U.S. Examples of crop items could be corn, oranges, cotton, grapes, apples, bananas, potatoes, blueberries, etc. The teacher must also prepare cards for each crop item that contains brief information about what conditions are needed for these crops to grow. The teacher should also create a blank map of the United States, enough so that each child has a copy. Lastly, the teacher must create stations throughout the room. At each station, one crop item and it's matching description card should be located.

#### Procedure:

#### Introduction/Motivation:

The teacher should begin the lesson by displaying all the crop items she brought in. Ask the class if all of these items can grow in Indiana. Select a few example crops and discuss as a class what aspects of Indiana's climate would help or hinder these crops (Bloom's Analysis).

#### Step by Step Plan:

-Divide the students into small groups of twos and threes (<u>Intrapersonal Intelligence</u>). Assign each group a station to start at.

-Explain that each station there is a different crop item. Their job is to work together with their partner(s) to determine what climate region that crop would grow best in. They must then draw that crop item (<u>Visual Spatial Intelligence</u>) on their map in the climate region that they decided it would grow best in.

-Review the expectations for station work. Explain the signal that will tell the students to switch stations.

-let the students loose (Bodily-Kinesthetic Intelligence)! Allow 1 minute at every station.

-When the students have completed all the stations have them return to the carpet area. Using a large map or overhead, have students share where they placed each crop item and why (<u>Bloom's Analysis</u>).

Closure: To conclude and assess the student's understanding, ask the students to return to their desk and take out a blank piece of paper. Ask the students to pick one of the crop items they worked with today that is grown in a climate other than Indiana. Ask the students to write 4-5 sentences about what climate region they believe that crop belongs in and why (Bloom's Synthesis and Analysis). Put an example on the board:

"Oranges "live" in Florida because it is warm and sunny (etc.)

Accommodations/Enrichments: For the children in my class that have MiMH I would have them work with a partner that would help motivate them. For one of my children in particular I might not ask him to fill out his own map as he rotates from station to station, but instead, point to the region that the crop should go on his partner's map. To enrich the activity, children can come up with ideas of other crops that I did not bring in and write about those too. They children could also write about if they would want to live in that climate (why or why not.)

#### Self Reflection:

Name of Lesson: Roasting Marshmallows: A Model for Earth Sun Relationships

Length of Lesson: 45 minutes

Source: Original

#### Academic Standard:

3.3.4 Explain basic Earth/sun relationships\*, including how they influence climate, and identify major climate regions\* of the United States.

**Objective:** After completing the lesson, students will compare and contrast, the cooking of a marshmallow to the relationship between the earth and the sun by writing at least 2 differences and 2 commonality on a Venn diagram.

**Assessment**: The teacher will collect the Venn diagrams to check to see if the children wrote at least 2 differences and 2 commonalities. The teacher will also check to see if the differences and commonalities made sense and demonstrated understanding of the subject.

# **Advanced Preparation by Teacher:**

To prepare for this lesson the teacher must gather the following materials: a small gas burning camping stove, marshmallow roasting sticks, one bag of marshmallows, one box of graham crackers and 1 pack of chocolate bars. The teacher must also make copies of the attached Venn diagram sheet for each child in the class. Lastly, the teacher may want to notify the principal in advance that the stove will be used for this lesson and obtain permission.

#### Procedure:

Introduction/Motivation: "Today we're going to learn a little more about the relationship between the earth and the sun in a tasty way.]. Before we begin, let's remind ourselves of what we've already learned about how the sun affects the earth."

#### Step-by-Step Plan:

- -Brainstorm a list of things the class has learned thus far and write the class responses on these on the board.
- -Explain that today, we are going to use roasting marshmallows as a model to learn more about earth/sun relationships. Discuss what a model is.

- -Challenge the students to be thinking of ways that the model (roasting marshmallows represents the real thing (earth sun relationships)
- -Explain safety precautions, distribute marshmallows and sticks, have children roast their marshmallows in waves, assist children in creating s'more sandwiches.
- -Have students return to their seats and eat their seats. As they finish their s'mores, have them fill out their Venn diagram.

#### Conclusion:

-Have students come to the carpet with their Venn diagrams and form a circle. Lead a class discussion about the model. Brainstorm together ways that the model is like the earth and the sun, and ways that it is different. Have students add new ideas from their classmates to their Venn diagrams.

**Modifications and Adaptations:** To challenge students, have the students brainstorm ways to design a better model than the marshmallow one (perhaps a round object could be used or somehow simulate the rotation of the earth around the sun.

To modify the lesson for identified students, have them roast their marshmallows first so they have more time to finish eating and work on their Venn diagrams before the class discussion starts. **Lesson Plan By:** Becca Flanders **Lesson:** What if: Climate Drama

**Length:** 60 minutes

**Age or Grade Intended:** 3<sup>rd</sup> grade

Source: original ©

#### **Academic Standard:**

Social Studies Unit Theme:

3.3.4 Explain basic earth/sun relationships, including how they influence climate and identify major climate regions of the U.S.

# Performance/Behavioral Objectives:

After learning about global warming, students will perform self-authored plays that answer the question, "What if we don't do anything to stop global warming," with 100% participation

**Assessment**: This project will be done during the course of one hour class period. Much of the skit will be improvised. They will not receive a letter grade. The teacher will watch closely to see if the student's plays demonstrated an understanding of what the potential dangers of ignoring global warming might be.

# **Advanced Preparation by Teacher:**

#### **Procedure:**

**Introduction/Motivation:** say to the class, "We have been learning a lot about what global warming is and what is happening to our earth at this very minute. It's a very serious problem. Today I want you to think about this question I have written on the board: What might happen if we don't do anything to stop global warming?" Turn to your neighbor and talk about this question. (Interpersonal Intelligence) (Blooms: Comprehension)

- -Explain that today we are going to make mini plays that answer the question you just discussed with your neighbors. I have assigned you to groups of 4. You will have 20 minutes to talk with your group and plan your play. You will then present your play to the rest of the class.
- -Before I tell you your groups, let's brainstorm how this could work. Who might be some characters in your skit? (take answers and write them on the board) (Blooms: Application) Some answers might include, animals who are loosing habitat due to global warming, everyday people, politicians who chose to not make laws against global warming, big factory owners who pollute, aliens who see earth from space..etc.
- -Remind the class of the question they are supposed to be answering with their skit. Tell the class who will be in their group
- -Remind the class of the expected behavior when doing group work (listen to everyone's ideas, share the work, work as a team)
  - -Assign the groups to separate areas of the room to work on their skit.
- -Set the students free to create a play! (Interpersonal Intelligence) (Verbal Linguistic Intelligence) (Bodily Kinesthetic Intelligence)

- -They do not need to write anything down unless they want to make notes to themselves.
- -Circulate to answer questions and ask questions to facilitate the creative thinking process.
- -After 10 minutes has passed, tell the students that they should be finished coming up with the ideas for the play, and should now be practicing their play

## **Closing:**

- -When 20 minutes is up, have the students come to the carpet area and sit with their group.
  - -Call each group up to present to the class.
- -After each group presents, open the floor up for questioning. Celebrate the different ways that students chose to answer this question through drama
- -Conclude by having the students return to their seats and write in their writer's notebooks about what they learned from the plays they say, what they learned by creating a play, and what they plan to do to prevent global warming from continuing to hurt our earth. (Blooms: Synthesis) (Intrapersonal Intelligence)

**Accommodations/Enrichments:** To support the students in my class with MiMH I will purposefully pair them with students in their group that will be supportive and will do a good job of including them in the activity. I will also be circulating and asking them questions to make sure that they are understanding the play they are writing with the group. To challenge groups that finish early, ask them to think of an alternate ending to their play that they can present to the class as well.

### **Self Reflection:**

**Lesson Plan By:** Becca Flanders **Lesson Title:** Writing about Climates

**Age/Grade Intended:** 3<sup>rd</sup> **Lesson Length:** 45 minutes

Source: original ©

## **Academic Standard:**

Social Studies Unit Theme: 3.3.4 Explain basic <u>Earth/sun relationships</u>, including how they influence climate, and identify major climate <u>regions</u> of the United States.

**Objectives:** After learning the characteristics of each climate region, students will write a persuasive paper that tells the reader why he/she should live in a particular climate that accurately depicts the characteristics of that climate.

**Assessment:** Student's will be assessed using a rubric (see attached).

**Advanced Preparation by Teacher:** The teacher must make copies of the attached rubric and the student checklist, enough so that each student will have one. The teacher must also write an example persuasive paper about a topic other than the 4 climates the students will be writing about. An example of this might be, "Why Everyone Should Live in the Artic." (example attached) Lastly, the teacher will need to have some blank paper for students to create webs with.

#### **Procedure:**

**Introduction**: "Now that we have learned about all of the climates in the US. Today we are going to write about our favorite climate. But we're not just going to write any kind of paper. We are going to write a persuasive paper. Can anyone tell me what a persuasive paper is? (Blooms: Knowledge)"

## **Step-by-step Instructions:**

- -Explain/Elaborate about what a persuasive paper is
- -Pass out the student checklist and explain what the students will need to include in their paper
- -Pass out blank paper, ask the students to create a web on their paper. (The teacher should create an example web on the board while they create theirs.) Ask them to write the name of their favorite climate in the center of the web. In the center of the teacher web write, "artic."
- -Have the students to write 5 descriptive words in their web to describe their climate (Verbal Linguistic Intelligence) (Blooms: Synthesis)
  - -Write, "cold" "clean" "quiet" "full of wildlife" and "snowy" on the teacher web -Ask the students to write a couple of reasons why that climate is the best (com-
- plete the same task on the teacher web). (Logical Mathematical Intelligence) (Blooms: Synthesis)
  - -Refer to the student checklist. Explain the requirements to the students.
- -take time to talk about how students can include an explanation of the earth/sun relationship. Brainstorm ideas and sentence starters.
  - -Finally, read the example paper about the artic.

-Set the students free to write their rough (<u>Verbal Linguistic Intelligence</u>) (Blooms: Synthesis)

-Have students read their papers out loud to a partner when they are done with their rough drafts (<u>Interpersonal Intelligence</u>). Instruct them to use their checklists to make sure they have all the requirements.

\*\*this assignment may need to be spread out during 2 class periods and/or assigned as homework

**Conclusion:** After the papers have been completed, collect them. The teacher should then divide the students into groups based on what they wrote about. Ideally there would be one student representing each climate in a group. Have the groups spread out in the room (with perhaps a couple groups in the hallway). Have each student read his/her paper aloud to the group in a persuasive tone (Verbal Linguistic Intelligence) (Interpersonal Intelligence).

**Adaptations/Enrichments:** For the students in my class with MiMH, I would provide more scaffolding in the brainstorming process. In their web we would actually write full sentences. They would then transfer these sentences to their rough draft. I would also have them use the specific sentence structure (if needed) to help them fill in the blanks to describe the earth/sun relationships.

For the students in the class who need to be challenged, they can elaborate and add great detail to their paper as well as include an illustration if they finish early.

#### **Self Reflection:**

## Descriptive Paper: Climates

Student Name:	
Description of the Climate:	
Included at least 5 descriptive words that	2
Accurately describe that climate	
Included at least 5 descriptive words but	1
Those words were inaccurate to describe that climate	
OR included less than 5 descriptive words	
Did not include any descriptive words	0
Persuasive Nature of Paper:	
	•
The student writes from a biased perspective	3
(The student attempt to convince the reader why they	
Should live/visit that climate)	
The student shows evidence of attempts	2
To convince the reader, but the persuasive	
Tone is not present throughout the paper	
The student writes in a report format (their paper	1
Neutral stance and simply states the facts	
And does not attempt to convince the reader of anything)	
Description of the Earth/Sun Relationship within the Paper:	
Charles a company of the court	2
Student accurately explained how the earth/sun	2
Relationship caused the climate to have the	
Characteristics described in the paper	
Carlos as an arrangement to be able to the contract and the	4
Student attempts to explain how the earth's relationship	1
To the sun caused the climate to have the characteristics but	
The explanation is not complete or inaccurate	
The student did not include how the couth's relationship to	^
The student did not include how the earth's relationship to	0
The sun caused the climate to have the characteristics	
Described in the paper	

## My Climate Paper Checklist

Name:
I included at least 5 descriptive words about my climate
$\underline{\hspace{1cm}}$ When I was writing, I told the reader why they should live in this climate, not just characteristics of that climate
People would want to live in my climate after reading my paper! $\odot$
I explained why how the distance from the sun affects my climate. Hint: if yo need help putting this in your paper, use the sentence below for help. Or come tall to teacher about this $\odot$
My climate is <u>(close to or far away)</u> from the sun. Because it is <u>(close to or far away)</u> from the sun, it is <u>(characteristics of that climate)</u>
I checked my paper forMisspellings
Khisspellings Capitalization
Punctuation
Things that didn't make sense
I read my paper out loud to a partner and I used their suggestions to help
make my paper better.

# Why Everyone Should Live in the Artic By Miss Flanders

The artic is a wonderful place to live! Not very many people live there, but that's only because they don't realize how great it is. The artic is earth's best kept secret. The artic is far away from the sun because is on the top and the bottom of the earth. Sun rays have to travel a long time to get there and so the artic is a lot colder than the rest of the earth. But don't let that scare you away! There are many great things about the artic! For instance, because the artic is so cold, you never have to worry about getting sweat stains on your shirt here! You will probably never sweat! If you are a person who loves to have snow on Christmas, you should come here. It's always snowy here! And, you can live in cool houses called "igloos." They are very fashionable and cheap to build, all you need is ice! Another great thing about the artic is that it is full of wildlife here. In the artic you can find cute little penguins as well as orca whales and polar bears. The artic is also very clean, quiet, and free from pollution. There aren't any nosey cars or smoggy cities, so the artic is perfect for nature lovers!

If you would like to live in the artic, just hope on a ship or an airplane and head up to the top of the earth or down to the very bottom. Trust me, you'll love it in the artic!

## Climates Unit Children's Trade Books

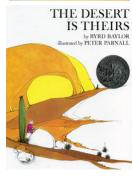
Children's Book

Title/Author

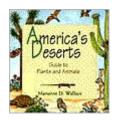


Cactus Hotel

by Brenda Z. Guiberson



The Desert is
Theirs
by Byrd Baylor

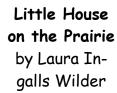


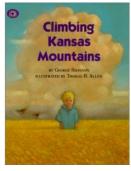
America's
Deserts
by Marianne D.
Wallace



**Desert Life** by Alice Jablonski



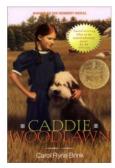




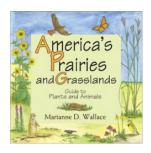
Climbing Kansas Mountain by George Shannon



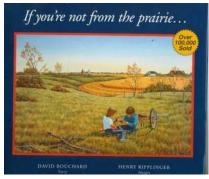
Heat Wave by Helen Ketterman



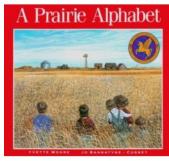
Caddie Woodlawn by Carol Ryrie Brink



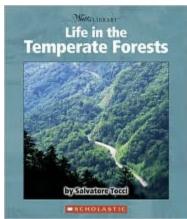
America's
Prairies and
Grasslands
by Marianne D.
Wallace



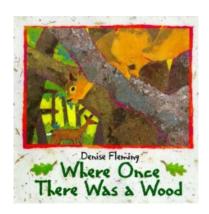
If You're Not From the Prairie by David Bouchard



A Prairie Alphabet by Jo Bannatyne-Curnet



Life in the Temperate Forests by Salvatore Tocci



Where Once There Was a Wood by Denise Fleming

## Integrating Technology into the Unit

Technology will be incorporated into my thematic unit in the form of time for each student to explore some of the following websites about climate. We will go to the computer lab on one day close to the end of our unit and take time exploring the websites. Before we go to the lab, students will come up with one question they still have about climate change, climates and how they are formed, or global warming. They will write this down prior to entering the lab. During lab time, they will spend time exploring the following websites independently in search of the answers to their questions. At the end of the class period they will be asked to turn in a paper in which they took notes on the new things they learned.

http://epa.gov/climatechange/kids/cc.html

This is a great website created by the Environmental Protection Agency. It incorporates kid friendly definitions of climate and global warming.

http://tiki.oneworld.net/global\_warming/climate\_home.html

This is another great website where "Tiki the Penguin" talks kids through the basics. It includes many cute cartoons.

http://www.weatherwizkids.com/climate.htm

This website elaborates on ocean, atmosphere and land's influence on climate. It is helpful in making the realization that climate is affect by more than simply earth sun relationships.

http://www.schools.utah.gov/curr/science/sciber00/8th/earth/sciber/climate.htm This website's strength is teaching kids that climate is also affected by elevation, ocean currents, winds and topography

http://www.windows.ucar.edu/tour/link=/earth/climate/cli\_latitude.html

This website shows a world map with all of the climate regions on it. It does a good job of explaining how distance from the sun affects climate. It also introduces the term "latitude."

http://www.globalwarmingchallenge.org/

This website is a networking system to help kids join together to fight global warming.

http://www.timeforkids.com/TFK/specials/articles/0,6709,1114251,00.html Global Warming Games to play

 $\frac{\text{http://www.timeforkids.com/TFK/pollzone/story/0,6271,1112547,00.html}{\text{Read what other kids are saying about Global Warming.}}$ 

## Field Trip: Heroes for Our Environment

Because the very real threats of global warming will probably scare students, as a teacher I must emphasize that there are things that can be done to reverse the trend of global warming! One of the great things we can do as a class is to take a field trip to see what is happening in the community to help combat global warming. The specifics of the field trip depend largely on what is being done in the immediate community surrounding the school. The theme of the field trip will be: Heroes for Our Environment. It will include 3 stops on a day long field trip. The first stop will be at a business in the local community that are engaging in earth friendly research or practices such as sustainable farming, alternative (bio) fuel production, recycling programs, solar or geothermal power plants. This will help students see that being earth friendly has practical applications to business. The local aspect of this field trip is very important because it will emphasize the relevancy of global warming in our world. It's not something that only people in Washington DC or big scientists care about, people in their own community care about it too.

The next stop on the field trip will be to visit a local resident who is doing an outstanding job of helping the environment through lifestyle changes such as supporting local businesses, riding a bike or carpooling, using reusable shopping bags,

etc. The students will create an award for this person to give to them at that time. This person will also share with the students what the threat global warming means to them and suggestions for the students to follow if they want to help.

This stop is important because it will give students steps that they can actually take to fight global warming themselves.

A final stop will be a local nursing home. Here, students could each interview a senior citizen about how the climate of Indiana has changed just in their life time. This would help students to understand that the change is real, and people are noticing it.



Dear Parents/Guardians,

I am writing this letter to you with great excitement! In a week, our class will be diving head first into an in-depth social studies unit about our earth's climates! During our unit we will learn about what causes the earth to have different climates, what the climates are that exist in the United States, and how climates are changing because of humans polluting the earth!

One of the great things about this unit is that your child will really get to shine with a variety of projects that will allow him/her to show us their creativity, problem solving, and thoughtful reflection skills. There will be a variety of lessons that incorporate active movement, art, music, drama, cooking and storytelling. It's a wonderful chance for all of us to see the strengths of our classmates outside of the normal academic subjects such as reading and math.

I hope you will join us for some of our lessons. I want to specifically invite you to join us on our field trip entitled, "Heroes for the Environment." We will be making three stops in Akron during the day long field trip. One stop will be at a soybean farm where soybean oil is being made into fuel for cars. A second stop will be at the library where we will meet with Ms. Meganmarie Pinkerton Dennis, a local citizen who is dedicated to fighting global warming, and finally Peabody Nursing Home, where your student will have a chance to interview a resident about changes they have seen in Indiana's climate during their lifetime.

Please contact me if you are interested in chaperoning our field trip, joining us for any of our exciting lessons, or if you have any questions or concerns. Thank you for your support of your child and me as their teacher as we embark on a new unit of discovery! © Sincerely,

Miss. Flanders

(teacher email) (teacher phone number)