

Weather and Climate Unit Overview

I. Standards:

Michigan's Grade Level Curriculum Expectations- 7th grade

- E.ES.M.7 Weather and Climate- Global patterns of atmospheric and oceanic movement influence weather and climate.
- E.ES.07.71 Compare and contrast the difference and relationship between climate and weather.
- E.ES.07.72 Describe how different weather occurs due to the constant motion of the atmosphere from the energy of the sun reaching the surface of the Earth.
- E.ES.07.73 Explain how the temperature of the oceans affects the different climates on Earth because water in the oceans holds a large amount of heat.
- E.ES.07.74 Describe weather conditions associated with frontal boundaries (cold, warm, stationary, and occluded) and the movement of major air masses and the jet stream across North America using a weather map.
- E.ES.M.8 Water Cycle- Water circulates through the four spheres of the Earth in what is known as the “water cycle.”
- E.ES.07.81 Explain the water cycle and describe how evaporation, transpiration, condensation, cloud formation, precipitation, filtration, surface runoff, ground water, and absorption occur within the cycle.
- E.ES.07.82 Analyze the flow of water between the components of a watershed, including surface features (lakes, streams, rivers, wetlands) and groundwater.

II. Objectives:

- TLW be able to explain how global patterns of atmospheric and oceanic movement influence weather and climate with 90% accuracy.
- TLW be able to compare and contrast the difference and relationship between climate and weather with 100% accuracy.
- TLW be able describe how different weather occurs due to the constant motion of the atmosphere from the energy of the sun reaching the surface of the Earth with 85% accuracy.
- TLW be able to explain how the temperature of the oceans affects the different climates on Earth because water in the oceans holds a large amount of heat with 80% accuracy.
- TLW will be able to describe weather conditions associated with frontal boundaries (cold, warm, stationary, and occluded) and the movement of major air masses and the jet stream across North America using a weather map with 90% accuracy.

- TLW will be able to describe how water circulates through the four spheres of the Earth in what is known as the “water cycle” with 100% accuracy.
- TLW will be able to explain the water cycle and describe how evaporation, transpiration, condensation, cloud formation, precipitation, infiltration, surface runoff, ground water, and absorption occur within the cycle with 100% accuracy.
- TLW will be able to analyze the flow of water between the components of a watershed, including surface features (lakes, streams, rivers, wetlands) and groundwater with 90% accuracy.

III. Learning Targets

Section	Learning Target #	Learning Target
Weather and Climate	7.1	I can explain how global patterns of atmospheric and oceanic movement influence weather and climate.
Weather and Climate	7.2	I can compare and contrast the difference and relationship between climate and weather.
Weather and Climate	7.3	I can describe how different weather occurs due to the constant motion of the atmosphere from the energy of the sun reaching the surface of the Earth.
Weather and Climate	7.4	I can explain how the temperature of the oceans affects the different climates on Earth because water in the oceans holds a large amount of heat.
Weather and Climate	7.5	I can describe weather conditions associated with frontal boundaries (cold, warm, stationary, and occluded) and the movement of major air masses and the jet stream across North America using a weather map.
Weather and Climate	7.6	I can describe how Water circulates through the four spheres of the Earth in what is known as the “water cycle.”
Weather and Climate	7.7	I can explain the water cycle and describe how evaporation, transpiration, condensation, cloud formation, precipitation, infiltration, surface runoff, ground water, and absorption occur within the cycle.
Weather and Climate	7.8	I can analyze the flow of water between the components of a watershed, including surface features (lakes, streams, rivers, wetlands) and groundwater.

IV. Assessments:

Throughout the Weather and Climate unit, I will present the students with various assessments (Diagnostic, Formative, and Summative).

1. Diagnostic Assessment

- a. I will hand out a pre-test at the beginning of the unit that asks students to solve for a variable in algebraic equations, represent a story problem as an algebraic equation, and to graph values given in a table.
- b. When the students are finished, we will discuss their answers to the pre-test as a class. This will help me to determine how much in depth I need to go into my instruction for each of the learning targets. The pre-test will provide a baseline of the student knowledge on weather and climate and at the end of the unit there will be data to compare the pre-test results to the final summative assessment.

2. Formative Assessments

- a. The students will complete a warm-up at the start of each lesson. The warm-up will assess the student on previous concepts which will tie into the lesson.
- b. We will have various labs and projects during the unit.
 - i. The students will turn in their lab report, which will include their observations and a one paragraph summary on the lab.
 1. The students will turn in a graph and table when needed.
 - ii. All the lab reports and class activities can be turned in again for half of the credit they lost if each question was answered on a separate piece of paper.
 - iii. They will also answer the following questions: “What mistake was made?” “How do you know your answer is correct?”, “What are the correct steps?”, “State the correct answer?”
- c. The students will complete think, pair, shares, one minute essays, and exit slips throughout the unit in order for me to check their understanding and this will also give me an opportunity to improve my instruction to match the needs for the students.
- d. All of the assignments will count towards the end of the unit folder check, which will accurately show the students’ knowledge improvement over the unit.

3. Summative Assessment

- a. Students will be given a quiz after completing two learning targets.
 - i. The first quiz will target on explaining how global patterns of atmospheric and oceanic movement influences weather and climate (LT 1). It will also ask the student to comparing/contrasting the differences and relationships between climate and weather (LT 2).
 - ii. The second quiz will assess the students understanding on how weather changes occurs due to the constant motion of the atmosphere from the energy of the sun reaching the surface of the Earth (LT 3) and how the

temperature of the oceans affects the different climates on Earth because water in the oceans holds a large amount of heat (LT 4).

- iii. The third quiz will assess the students understanding on weather conditions associated with frontal boundaries (cold, warm, stationary, and occluded) and the movement of major air masses and the jet stream across North America using a weather map. (LT 5) and how Water circulates through the four spheres of the Earth in what is known as the “water cycle” (LT 6).
 - iv. The four quiz will target the water cycle. The students will describe how evaporation, transpiration, condensation, cloud formation, precipitation, in filtration, surface runoff, ground water, and absorption occur within the cycle (LT 7) as well as, analyze the flow of water between the components of a watershed, including surface features (lakes, streams, rivers, wetlands) and groundwater (LT 8).
- b. The students will be given two performance base assessments.
 - i. Assessment one: The students will be tracking the daily weather at their house for three weeks and they will compare their weather to the averages temperatures.
 1. This will help students compare and understand the difference between weather and climate.
 - ii. Assessment two: The students will create a Climate Change paper, where the students will be instructed to research on climate change.
 - c. The students will have a unit test which will assess the students on each of the learning targets for the unit.

V. Accommodations

The lessons for the Weather and Climate unit will be taught within a general education 7th grade classroom. I will make sure I accommodate my students who have learning disabilities and provide them the right tools to succeed in the classroom. Every student will be given an opportunity to resubmit their lab reports and in-class activities following the specified format. This will give students who are struggling with the material an opportunity to correct their mistakes and learn from them. Also, the students can come in after school for tutoring to re-learn the concepts and make-up late work. The assignments will be posted on the class website as well as in the assignment folder in the classroom.

VI. Instruction Delivered

Throughout my unit, I plan to deliver my instructions in various formats in order to differentiated learning in my classroom as well as continuously assessment my students. I created the lessons for the unit by identifying my student’s needs by their interest, readiness and learning profiles.

During the student’s warm-up, the students will have questions or problems

from previous concepts in 7th grade science. This will give the students an opportunity to demonstrate their understanding as well as asking questions about the content. The warm-up will vary each day, but the students will reflect how their problem solving and critical thinking about the lab and/or activity on weather and climate. After five- seven minutes, we will have a class discussion in which the students will lead the discussion by presenting their solutions to the class. This gives the students an active role for learning in the classroom.

For each learning target, the student will be taking notes on their content and/or completing a lab/activity. The students will learn the material by taking notes on their i-Pad's and follow on with the presentation on the smart board. The presentations from Prezi and PowerPoint will include videos and animations for the students to follow along and learn the content from a different media.

The students will have time in class to do their research for their argumentative paper. This gives the student an opportunity to learn how to research concepts from reliable academic sources online databases and use the library for resources for their paper. The paper and daily weather report is to extend their learning outside of the classroom and tie their understanding of weather/climate to the real world. This will allow students to understand how weather/climate affects us and how we can make change to slow down climatic change on Earth.

VII. Unit Sequence

This unit will be taught in about 15 school days. Each learning target will take two days to cover. The students will have a quiz every Friday covering the learning targets. The students will be giving 3 days for research/ typing up their paper in class. The students will be completing their daily weather report for three weeks. The final day will be the unit test covering each of the learning targets.

VIII. Technology

Technology has a way to engage the students in participating with the lessons of weather and climate. In my classroom, every student will have an i-Pad, tablet and/or laptop to use in the classroom. Currently, my placement doesn't have a class set of I-pads. I feel that utilizing the i-pads in the learning environment will encourage students to take ownership in their learning. Ideally, I would allow the students to type up notes and draw diagrams on the i-pad instead of writing with a pencil and paper. I would allow the students to take online quizzes and assessment which I created from scorative.com.

In my classroom, I will use a smart board, Elmo's, I pad's and/or laptops and projector for my notes and instruction. With Dorcei, I can turn my I pad into a mini smart board, which will project whatever I write on the i-Pad to the smart board as well as my computer. By using this

application, I can walk around the room during notes and instruction instead of being in front of the classroom. Thus, the students will be more engaged since I'll be moving to different positions throughout the classroom. With the projector and smart board, I can project my Prezi's or PowerPoint presentations as well as presenting documents on Elmo. During my presentations and demonstrations, I will integrate various videos, pictures and animations into my presentations to engage the students into the learning about weather and climate. By using the Elmo, the students can show their paperwork/assignments and go over answers with their peers and teachers. The smart board allows an interactive opportunity to write notes instead of using markers. This allows me to save his/her notes from class on the computer, thus I could save the notes to our class website. This will allow students to print off notes when they have been absent. The projector, Elmo and smart board will allow me to demonstration parts of the lesson so each of the students could see. Also, this will allow me to present my lessons in different ways and help model the learning during the labs and assignments.

Lastly, I would like to create a class website which has electronic copies of our notes and assignments, just in case the students need to reprint the document. The website will allow me to communicate to the parents about what their children did in class, which invites parent's participation in the child's learning and education.

Lesson Plans

Daily Weatherman Report- Lesson 2

1. Benchmarks:
E.ES.07.71 Compare and contrast the difference and relationship between climate and weather.
2. Behavior Objective:
 - a. Given a weather conditions and weather data, the students will be able to distinguish the difference between weather and climate with 100% accuracy.
3. Anticipatory Set:
 - a. The teacher will ask the students the following question: "How does weather affect us - and our lives?"
 - i. Some ideas that students may share:
 1. We dress according to weather.
 2. We plan recreational activities and meal choices based on weather.
 3. We use our homes' heating and cooling systems based on weather.
 - b. Have the student share their responses to the class.
4. Objective/Purpose:
 - a. "Today, we will distinguish the difference between weather and climate. We will become a weatherman and take observations of our weather conditions outside of our school. We will learn how to collect and graph local weather data and compare our data to the yearly averages for our city and area. This is important

we can tell how weather impacts our daily lives and how we dress depending on the weather.

5. Input

a. Task Analysis

- i. The teacher will ask the students the following question to start the lesson: “What is weather?”
- ii. After a few minutes, have students do a **Think, Pair, and Share** with their lab partner.
 1. They will share their responses with each other.
- iii. After two minutes, the teacher will ask students their definitions of weather and chart the students’ ideas, and keep the ideas posted.
 1. It is not necessary at this point to correct the student’s response.
- iv. The teacher will pass out the Citizen Weatherman Project
 1. The students will learn how to take weather observations and take daily observations on weather conditions in their hometown.
 2. The students will learn how to take each weather measurement during today’s lesson as well receive the weather measurement tools for them to take measurements at home.
 - a. The students will be measuring atmospheric temperature and describe the weather conditions for cloudiness, precipitation, and wind.
 3. The students will go outside of the school and take 3 atmospheric measurements in a shaded area above the ground.
 - a. The students will wait two to three minutes to have the thermometer adjust to the outside temperature.
 - i. While standing, the students will take the temperature at eye level.
 - b. The students will take three readings together for the atmospheric temperature and find the average temperature.
 - c. The students will record the data in their “Daily Weather Data” worksheet.
 4. The students will head back into the classroom.
 5. The students will record their averages on the Class data table which is projected on the whiteboard
 - a. The students will also share their observations of the weather conditions.
 6. The students will record the class data down and will make a graph on the average temperatures.
 7. The students will write 3 sentences explaining the trend of the graph and what was the average temperature for the day.
 - a. What factors affected the temperature while we observed
 - b. How does the time of day affect our temperature reading?

8. The teacher will announce to the class that each student will need to take the temperature and describe the weather conditions each day for the next two weeks.
 - a. The students will turn in their observations, their graph and write a one paragraph summary on what they observed in the weather in their backyard.
 - b. What factors affected the weather?
 - c. The paper and observations will be due on Monday, November 4th.
 - b. Thinking Levels
 - i. Knowledge: Describe what weather and climate is. How can you take the temperature?
 - ii. Comprehension: Understand the difference between weather and climate? What factors affect our weather conditions?
 - iii. Application: Use daily atmospheric temperatures to determine the weather.
 - iv. Synthesis: Predict the weather conditions for the next two weeks.
 - c. Learning Styles
 - i. Auditory- The students listen to the step process of to take accurate atmospheric temperatures and gather data for their unit project on weather and climate.
 - ii. Visual- The students will watch how the teacher takes the atmospheric temperature inside and outside of the classroom.
 - iii. Kinesthetic- The students will measure the atmospheric temperature and record their data in their data table. They will also observe the cloudiness, precipitation, and wind at their location.
 - d. Methods and Materials
 - i. Ways of Presenting- self-exploration, science inquiry, demonstration of the equipment
 - e. Materials needed- "Personal Weatherman Report," Thermometer's, Daily Weather Data, Weather Vs. Climate Summary Sheet,
6. Modeling:
 - a. The teacher will demonstrate how to take the atmospheric temperature and determine the cloudiness, precipitation, and wind.
 7. Check for Understanding:
 - a. **Think, Pair, Share** on what is weather.
 - b. How can we read the temperature from the thermometer?
 - c. What evidence supports your claim on today's weather conditions?
 - d. What conclusions can you draw for our class data?
 - i. How can we develop an understanding of how climate affects our daily weather?
 - e. What factors contribute to weather?
 - f. The teacher will call on student's answers by drawing a name out of the bucket. This gives everyone a chance to share and each student needs to pay attention.

8. Independent Practice:
 - a. The students will create a graph on the class data and write a paragraph on what they observed in today's weather collecting.
 - i. The students will also mention their plan on collecting data for weather conditions and atmospheric temperature for the next two weeks.
9. Closure
 - a. The teacher will close the class with an **exit slip**. The students will write down one item they learned from today's lesson and what they need to improve on.
 - i. This formative assessment will give the teacher feedback on what the students understand and what the teacher needs to re-teach/re-iterate in a future lesson.
 - ii. The next lesson will be on gathering climate data (daily average temperatures) for their hometown.

Lesson 5- Reporting Weather Conditions in the USA

1. Benchmarks:

E.ES.07.74 Describe weather conditions associated with frontal boundaries (cold, warm, stationary, and occluded) and the movement of major air masses and the jet stream across North America using a weather map.
2. Behavior Objective:
 - a. Given a weather conditions and weather data, the student will be able to describe weather conditions associated with frontal boundaries (cold, warm, stationary, and occluded) and the movement of major air masses and the jet stream across North America using a weather map with 90% accuracy.
3. Anticipatory Set:
 - a. The teacher will ask the students the following question: "Explain how the temperature of the oceans affects the different climates on Earth?"
 - b. After writing down their response, the students will have a **think, pair, and share** with their neighbor to discuss the question of the day.
 - c. The class will have a brief discussion and have some of the students share their Responses to the class.
4. Objective/Purpose:
 - a. "Today, we will discuss how frontal boundaries and movement of air masses/the jet stream affect our weather conditions. We will look into the weather forecast for continental USA and report the weather to class. We will create segments on weather stories and explain the 5 day forecast. This will help student's understand what weathermen and metrologies do their careers and understand how the jet stream and frontal boundaries can affect our weather conditions.
5. Input
 - a. Task Analysis
 - i. The students will take brief notes on frontal boundaries and air masses.
 1. They will learn how both affect our weather conditions.

2. The teacher will show weather maps and how both factors affect our weather conditions.
 - ii. The students will create a weather report for the continental USA.
 1. The class will break into smaller groups and each receive a different task.
 - a. 15 groups of 3-4 students will research the weather conditions and temperatures for 15 cities in the USA.
 - b. The other students will be the weather reporters and will be filmed during their live broadcast from the classroom.
 2. The students will share the information to the class and start creating temperature maps and forecast maps for the United States.
 3. When the students are done creating the maps, the students will practice their weather report.
 4. When the students are ready, the teacher will film their broadcasting.
 5. At the end of the lesson, the students will write in their journals what they learned on how air masses and frontal boundaries affect the weather conditions.
 - b. Thinking Levels
 - i. Knowledge: Describe what the differences between frontal boundaries and air masses.
 - ii. Comprehension: Understand how frontal boundaries and air masses affect the weather conditions.
 - iii. Application: Research the weather conditions in 15 US cities and understand how the frontal boundaries and air masses change our daily weather conditions.
 - iv. Synthesis: The students will broadcast a fake weather broadcast for a new network.
 - c. Learning Styles
 - i. Auditory- The students listen to lecture on frontal boundaries and air masses.
 - ii. Visual- The students will watch how the air masses and frontal boundaries affect the weather conditions and temperature to cities across the USA
 - d. Methods and Materials
 - i. Ways of Presenting- self-exploration, science inquiry, demonstration of the equipment, filming
 - e. Materials needed- PowerPoint on the effects of Frontal Boundaries and air masses on weather conditions, internet, computers, markers, large construction paper, and video camera
6. Modeling:
 - a. The teacher will demonstrate how air masses and frontal boundaries affect weather conditions.
7. Check for Understanding:
 - a. **Think, Pair, Share** on how oceans affect the temperature and weather conditions.

- b. What are the difference between air masses and frontal boundaries?
 - i. How do they affect our weather conditions?
 - c. What other factors affect our weather conditions?
 - d. What evidence supports your claim??
 - e. What conclusions can you draw on how frontal boundaries and air masses affect our weather conditions?
 - i. How can we develop an understanding of how climate affects our daily weather?
 - f. What factors contribute to weather?
 - g. The teacher will call on student's answers by drawing a name out of the bucket. This gives everyone a chance to share and each student needs to pay attention.
8. Independent Practice:
- a. The students will research the weather conditions for cities across the United State and report the five day forecast.
 - i. They will explain what causes the rise/fall of the temperature and the weather conditions.
 - ii. The students will film their weather broadcast in class.
 - iii. The students will reflect on how frontal boundaries and air masses affect our weather conditions.
9. Closure
- a. The teacher will close the class with an **exit slip**. The students will write down one item they learned from today's lesson and what they need to improve on.
 - i. This formative assessment will give the teacher feedback on what the students understand and what the teacher needs to re-teach/re-iterate in a future lesson.
 - ii. The next lesson will be on wrapping up frontal boundaries and the students will take their quiz on learning target 3 and 4.

Lesson 10- Introduction to Climate Change Paper

1. Benchmarks:

E.ES.07.71 Compare and contrast the difference and relationship between climate and weather.

E.ES.M.7 Weather and Climate- Global patterns of atmospheric and oceanic movement influence weather and climate.
2. Behavior Objective:
 - a. Given a weather conditions and weather data, the students will be able to explain how global patterns of atmospheric and oceanic movement influence weather and climate with 80% accuracy.
3. Anticipatory Set:
 - a. The teacher will ask the students the following question: "How does global warming affect our weather and climate?"
 - b. The students will write down their responses in their notebook.

- c. After four minutes, the students will share their ideas with their partners about the question of the day.
 - d. The student will share their responses to the class during the class discussion.
4. Objective/Purpose:
- a. “Today, we will distinguish the how global warming and other global patterns affect the weather and climate. This is important we can tell how weather impacts our daily lives and how we dress depending on the weather.
5. Input
- a. Task Analysis
 - i. The teacher will introduce the performance assessment for the Weather and Climate Unit on how global changes affect weather and climate.
 - ii. The students will respond to the following topic:
 - 1. “How is Climate Change Impacting Weather-Related Events? Why or why not?”
 - a. The students will have a choice with their argumentative essay and they will support by gathering evidence for their claim.
 - b. The students will be able to pick three out of the six weather related events and how climate change affects each of them
 - i. Hurricanes
 - ii. Flooding
 - iii. Drought
 - iv. Severe Weather
 - v. Wildfires
 - vi. Winter Weather
 - c. How do humans impact climate change?
 - 2. The teacher will read over the directions for the assignment.
 - a. The paper will have to be 2 pages long and contain all the requirements mention above.
 - b. The students will research how global warming has changed our climate by impacting weather related events and what how has humans impacted the climate change?
 - c. What can humans do to help slowdown the climate change?
 - i. What are possible solutions?
 - 3. The students will research the short term and long term effects of global warming.
 - iii. The teacher will show students how to research the topic and give hints of good sources for the paper assignment.
 - 1. The teacher will provide the students with some research.
 - iv. The students will have the rest of the class period to research the topic and start forming their thesis statement.
 - 1. By the end of tomorrow’s lesson, the students should have their research and formulate their thesis statement.

- v. The assignment will be due in one week.
- b. Thinking Levels
 - i. Knowledge: define global warming.
 - ii. Comprehension: Why does global warming matter? What's the main idea about global warming?
 - iii. Application: What examples do you have about global warming? What would happen if our average temperature increases by 1°F every year?
 - 1. What would happen to our ecosystems?
 - iv. Analysis: What evidence supports your claim? What conclusion can you draw? What evidence do you have to supports....
 - v. Synthesis: Can you develop an explanation from your research and results?
 - vi. Evaluation: What supporting evidence do you have to substantiate your assumptions/claim? How would you justify you stance after your research?
- c. Learning Styles
 - i. Auditory- The students listen to directions for the Climate Change Paper.
 - ii. Visual- The students will watch how the teacher uses the internet for research and gather data to support his/her argument.
- d. Methods and Materials
 - i. Ways of Presenting- Reading directions, showing how to research
 - ii. Materials needed- "How is Climate Change Impacting Weather-Related Events?" writing prompt, and paper rubric
- 6. Modeling:
 - a. The teacher will demonstrate how to use the internet to gather evidences and reliable sources.
- 7. Checking for understanding
 - a. **Think, Pair, Share** on global warming and how it affects you.
 - b. What evidence supports your claim on global warming and how it affects weather related events?
 - c. What conclusions can you draw for our class data?
 - i. How can we develop an understanding of how climate change has affected weather related events?
 - ii. How can humans change their behavior to slow down global warming?
 - d. What factors contribute to global warming? How do you know?
- 8. Independent Practice:
 - a. The students will continue to research sources and gather information for their paper.
 - i. The students will create an outline of their paper, and turn in the outline with their thesis by the end of class tomorrow.
- 9. Closure
 - a. The teacher will close the class with an exit slip. The students will write down what they will need to assist them with their research on the relationship between climate change and weather related events.

- i. This formative assessment will give the teacher feedback on what the students understand and what the teacher needs to re-teach/re-iterate in a future lesson.
- ii. The students will continue to research for their paper and create a working outline for their paper.

Scoring Guides

- Diagnostic assessments:
 - The pre-assessment will not be graded. The purpose of the pre-assessment was to get an idea of how much of the content the students already know about weather and climate as well as getting them introduced to the concepts and content we will be studying in the unit.
- Formative Assessments:
 - The formative assessments will be graded on completion. Students will hand in the formative assessments, like the lab reports, summaries and graphs.
 - The formative assessments, like the think, pair, share, exit slips and one minute essays will not be graded. However, I will read over them to check the students' understanding and see if I can adjust my instruction to fit the needs of each of the students in my classroom.
 - Students will turn in redo assignments within a week from receiving the assignment back to receive half the points back.
 - The student(s) will need to come in after school to talk about the assignment and receive extra assistance if they need extra time practicing a concept.
 - They will need to turn in the original assignment and have their corrections on a separate piece of paper.
- Summative Assessment:
 - Each of the quizzes will be worth ten points and will be a mixture of multiple choice and short answer responses.
 - The final summative assessment will be three parts:
 - The students will turn in their two-week weather report project.
 - The students will turn in their observations from the weather data table, their daily temperature graph and a one-page paper on how

their daily temperature and weather conditions compared to the climate in their hometown.

- The weather report project will be worth 25 points.
- The students will turn in their climate research two page argumentative paper, which will be worth 25 points.
- The students will have 50 points unit test which assesses the students on each of the learning targets. The test will have a true/false section (10 points), matching (10 points), multiple choice (20 points) and two short answer question (10 points).
- I will analyze each of the summative assessment and make adjustments for future lessons to make sure the students understand the content.

Overall Reflection

After completing and organizing the weather and climate unit plan, I realized on how much time it took me to sequence the unit. This was my second unit plan to write outside of my major in mathematics. I found it was easier to sequence the math lessons as compared to science lessons. This also gave me a chance to learn what types of assessment and assignments I would use if I taught a middle school classroom. Once I was able to backward design the unit for the pre-test, I was able to make sure my final summative assessments covered the learning targets and the concepts for the weather and climate unit. I realized I use more writing formative assessments in my science classroom compared to my math since the students need to reflect from their science inquiry. If I became a 7th grade science teacher, I would use this unit as a basis for the unit and continue to expand upon to make sure it targets to every student and covers the content. I also would look into other resources to see how I can improve my lessons and integrate more technology into the unit to engage the students in the learning process. Lastly, I would make sure the new science standards would be match this unit. Thus, I will need to revise the unit and make sure it matches the new standards.