EDU 320 – Synthesis Paper

Ella T. Konieczka

University of Mary

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Throughout this class, we have discussed several concepts to be incorporated into the classroom of an effective teacher. These concepts were discussed as a class and then implemented by creating artifacts that could be used throughout our teaching careers. Through these discussions and assignments, I have grown as a preservice teacher and begun to better understand the components necessary to teach successfully.

The Effective Teacher

Description

The effective teacher has certain standards that they are held to and is intentional with the work that they do for their classroom. There are ten InTASC standards that lay out the components of an effective teacher, focusing first and foremost on the student, but ranging to how lessons are planned and how to engage in ethical practices in the classroom. Throughout the semester many of these standards were integrated into the themes studied. The concept of being an effective teacher is based on working ethically but flows into every other part of the classroom.

Artifact

Small group discussion on INTASC standards

How it Will Be Used in Classroom

I will be an effective teacher in my own classroom by keeping ethical practices in mind. I do not want to ever place my students in a risky situation, and I never want to endanger my own career with thoughtless actions. By following the InTASC standards, I can remain ethical in the classroom which gives me more freedom to focus on my students. I will be a more effective teacher by planning my year, knowing and understanding my students, assessing with intentionality, and remaining ethical throughout each of these aspects.

Understanding Your Students

Description

In order to best serve our students, we as teachers must work to understand them. Understanding our students can be something that is developed over the course of the school year, but it should be done with intentionality at the beginning of the year. Knowing and understanding the kids in our classroom allows us to differentiate instruction and tailor their education to better suit them as unique learners.

Artifact

See Appendix A

How it Will Be Used in Classroom

I want to use this concept in my classroom from the very beginning of the year as a starting point for relationship building. This would start as something intentional and specific that I would have handouts and activities for, like shown in Appendix B. That allows me to build a solid foundation for each student. The rest of the year would be built off this initial knowledge base by asking my students questions in conversation and continuing to build relationships in other spontaneous methods.

Goals, Standards, and Objectives

Description

Goals, standards, and objectives are designed to direct our instruction and keep it at a high quality for our students. Standards are set and maintained by the state. They are the level that we as teachers should be ensuring that our students are meeting or surpassing, aligning our objectives in the classroom to those standards. Each lesson that is taught should be directed to

one of these standards to make sure that we use our time well and orient our instruction to what benefits the students most.

Artifact

See Appendix B, Objective and Standards Boxes

How it Will Be Used in Classroom

I will use standards in the classroom by planning each lesson around the state standards for my students' age group. I will write objectives for each lesson and check that they match the state standard, building up to some more difficult goals over the course of several lessons. I want to ensure that my students are progressing at an appropriate rate and are well prepared for the following year, so I will track their progress based on standards as well as write standards into my lessons.

Unit and Lesson Planning

Description

In order to be an effective teacher, I need to be able to plan and prepare for lessons in individual topics as well as interdisciplinary units. Lessons are written to plan what a teacher does in one day or one fifteen-minute session, but unit plans cover days or weeks of instruction. These plans give us an end goal to work towards and keeps the school year cohesive and focused. Unit plans can incorporate several different disciplines and take several weeks. Though this takes more planning, it unites the different subjects into one theme and can make learning more engaging for students.

Artifact

See Appendix C, Whole lesson

How it Will Be Used in Classroom

I will use lesson and unit planning to ensure that my time is used well in the classroom, and I am prepared for each day. I never want to teach without a reason, so planning helps me to ensure that each lesson has purpose and benefits the student. I will lesson plan in depth for larger units and more difficult lessons, with looser plans written for more routine or simpler lessons. Whether I write a full-length plan or a simple outline, I intend to have a goal and purpose to each lesson that I teach, which comes through writing out plans for each day.

Technology Integration in Instruction

Description

Students will need to be fluent in using technology and prepared to learn how to use new technology as it is developed. As educators, we need to integrate technology into the lessons that we teach, authentically teaching technology by giving students the chance to use it frequently. More than simply adding basic technology, we can deepen the effectiveness of our lessons by planning complex usage and genuine applicability.

Artifact

See Appendix B, Set-Up and Explore Sections

How it Will Be Used in Classroom

I will integrate technology in my classroom by staying up to date on new platforms as they are released and developed. As I lesson plan, I will look into different websites and technology tools that can be added that can transform the original lesson idea. For the most part I will include technology in projects with platforms for videos and discussion boards. Research and conversation with my coworkers will help me stay on top of new technology opportunities.

Questioning Strategies

Description

Throughout instruction, one method engaging the students is through asking questions. Question-asking while teaching can have many different purposes, from getting the students attention to structuring the learning that is happening and deepening the learning. Questions can be convergent, meaning that they have one or two specific answers, or divergent, meaning that they are more open ended. These divergent questions are the ones that encourage deeper thinking and higher-level learning.

Artifact

See Appendix B, Explain Section

How it Will Be Used in Classroom

I will use questioning in my classroom as a way to get the students thinking in my lessons. I want them to be hearing the information but also processing it and practicing it to deepen the learning. The questions that I use will include having them recall information, explain familiar concepts to me, and checking for understanding. Checking for understanding is particularly important to how I will teach because I want to be able to review tricky parts, but I do not want to assume that they don't understand something. Asking questions will let me review what is necessary and not be repetitive if they understand the concept.

Teaching Strategies for Direct Instruction

Description

Direct instruction is designed to give information to students by explicitly describing the facts and concepts. Direct instruction is used for Type 1 learning outcomes where students are acquiring new knowledge. This is done by presenting the information to the students and giving opportunities to practice the new information. This should be done in a way where students can

receive feedback and ask questions after practicing to best support their learning before having them work independently.

Artifact

See Appendix D

How it Will Be Used in Classroom

I will use direct instruction in my classroom when I am introducing new ideas and information. It is crucial to the students' understanding of new concepts. There will be direct instruction in every new unit because I will use direct instruction as my primary strategy for knowledge acquisition. Direct instruction will be used with concepts that have proven to be difficult for students and need to be retaught as well.

Teaching Strategies for Indirect Instruction

Description

Indirect instruction is the learning that occurs when students problem solve and work on projects that encourage their independent inquiry. It is used for Type 2 learning outcomes that apply and analyze what was learned. It uses the knowledge acquired through direct instruction as a basis for analysis and creating in projects. Students should need to work cooperatively and think independently, using information to create a product that is linked to this concept.

Artifact

See Appendix E

How it Will Be Used in Classroom

I will use indirect instruction as the application portion of most of my units. This is where students can express themselves and critically think, with emphasis on the upper levels of Bloom's taxonomy. This kind of thinking is what I want all of my learners to achieve, so it will

be incorporated in simpler, guided forms at the beginning. By the end of the year, I would like students to be able to tackle inquiry-based projects on their own. They will also be creating projects for indirect instruction that can be shown off in different community involvement activities.

Assessing Learners

Description

Assessment is how teachers track their students' learning throughout the year. It begins with assessing where the student is starting, with pre-assessment. This is the baseline for later assessment to see what the growth has been. Formative assessment is done throughout the learning process to ensure that students are on track and understanding the content as it is taught. It should be a low-stakes assessment, just to see how the students are understanding what is being taught. Summative assessment, done at the end of lessons and units, is the most frequently graded type of assessment. It should reflect the students learning at the end of the learning process, showing what they know after they have acquired knowledge and had the chance to practice and get feedback several times.

Artifact

See Appendix F

How it Will Be Used in Classroom

I will assess learners mostly in formative and summative formats. Formative assessment will be quick check ins with in-class questions, discussions, and activities. It is a chance for students to practice and for me to see what I need to review. Summative assessment with older elementary is often in test format and I would like to use tests as a simple way to show students' knowledge. The other summative assessment form that I will use for larger units and interdisciplinary

projects will be presentations and product creation. These show higher level thinking and will be designed for the particular unit that they are related to.

Conclusion

The components highlighted above were all crucial to my development as a future teacher, however certain elements in this course were more prominent in how they caused me to grow. The first takeaway that most surprised me was the intentionality of good questioning. Every single lesson, activity, and critical thinking opportunity that students engage in stems from effective and diverging questions. When implemented well, these questions transform the learning experience, and it takes no special tools or costly program. I also greatly appreciated the practice with direct and indirect instruction. This course reaffirmed the idea that both are essential for students to learn well, getting a knowledge base through direct instruction and critical thinking through indirect instruction. With both of these primary takeaways as well as the other key themes explained throughout this class, my skills and amount of knowledge as a future teacher have grown exponentially and transformed how I will approach my own classroom in the future.

References

L Borich, Gary D. (2017). *Effective teaching methods: Research based practice.* University of Texas at Austin: Pearson Education, Inc.

Appendix A

Getting to know YOU

About You:

In your free time, what do you like to do? _____

_____

Where do your family members work? _____

_____

What's one thing that you worry about? _____

_____

What is one thing your teacher can do to get to know you better? _____

_____

How you Learn:

What is your least favorite subject in school? Why? _____

_____

What is one thing you think you do well as a student? _____

_____

Which of the following is your favorite way to learn: by talking with others, by listening, or by reading? _____

Would you rather do schoolwork as a group or by yourself? _____

_____

What is something you would really want to learn about or get better at this year? _____

_____

Getting to know YOU

Round 2, Week 4:

Now that we have gotten into the school year, is there anything you would like me to know? _____

_____

What activities have you liked so far? What activities did not work for you? _____

_____

How can I help you keep learning and growing? _____

_____

What is one thing you worry about? _____

_____

What is one thing you are excited for? _____

_____

Appendix B

<table>
<tr><td colspan="2">Grade: 4</td><td colspan="2">Subject: Math – Perimeter and Area</td></tr>
<tr><td colspan="2">Materials: Paper, pencils, rulers/tape measures</td><td colspan="2">Technology Needed: White Board/Smart Board</td></tr>
<tr><td colspan="2">Instructional Strategies:
☐ Direct instruction
☐ Guided practice
☐ Socratic Seminar
☐ Learning Centers
☐ Lecture
☐ Technology integration
☐ Other (list)
☐ Peer teaching/collaboration/ cooperative learning
☐ Visuals/Graphic organizers
☐ PBL
☐ Discussion/Debate
☐ Modeling</td><td colspan="2">Guided Practices and Concrete Application:
☐ Large group activity
☐ Independent activity
☐ Pairing/collaboration
☐ Simulations/Scenarios
☐ Other (list)
Explain:
☐ Hands-on
☐ Technology integration
☐ Imitation/Repeat/Mimic</td></tr>
<tr><td colspan="2">Standard(s)
4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

1.5 Computational Thinker. Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.</td><td colspan="2" rowspan="2">Differentiation
Below Proficiency: They will be with a partner, and I will be floating around so that they can ask questions and collaborate. If they are struggling, they can use smaller things to measure so that the numbers are easier to work with. Students who were struggling with the formulas may have the formula given to them broken down so that they just have to plug in the right numbers

Above Proficiency: Students may measure something larger, like the room or the hallway to make the numbers more difficult. If ready, formulas for triangles or even circles could be introduced to see if they can apply those as well.

Approaching/Emerging Proficiency: These students will find objects in the room that they can measure, still with partners, that are relatively manageably sized. This could be desks, bookshelves, etc so that the math is not too difficult, but they are starting to apply the formulas.

Modalities/Learning Preferences: Students who work better with hands on will be better with this type of lesson. For students who would rather have the number written on paper will have it with them and may write it out verbally or draw it to help them think through the problem. Students who work better audibly will have their partners with them to verbalize the math that is happening and hopefully help their thinking.</td></tr>
<tr><td colspan="2">Objective(s)
By the end of the lesson the learners will be able to implement formulas to find the perimeter and area of three different things in the classroom.

By the end of the lesson the learners will be able to represent the area and perimeter that they measured in a computer model.

Bloom's Taxonomy Cognitive Level: Apply</td></tr>
<tr><td colspan="2">Classroom Management- (grouping(s), movement/transitions, etc.)
Students will be in their desks, when it is time to transition from the instruction to the activity, they will be given the instruction and then partners. They will be with their partners for the day that are assigned each morning. They can be a level 2 talking, where they visit and problem solve together but are not using full voices. Leaving the room will require permission but some work in the hallway is okay. They will have a timer for 10 min to measure and do their math. When</td><td colspan="2">Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)
Students are expected to work as partners and collaborate. They must talk through the problem and think their hardest before coming to the teacher for help. Volume levels should stay fairly low since they are only in pairs and volume in the hallway has to be a bare minimum to not distract other classes.</td></tr>
</table>

the timer goes off, they are expected to return to their seats. Any extra time can be used to find something more challenging like a triangle to measure and calculate.	

Minutes	Procedures
	Set-up/Prep: **Have formulas ready with a couple example problems** **Have tape measures and a few extra rulers** **Review how students did on past problems for area and perimeter to make sure that I know who might need some extra support.** **Website - http://nlvm.usu.edu/en/nav/topic_t_4.html** **Formulas** **Perimeter: 2L x 2W** **Area: L x W** **4 in x 5 in** **Perimeter=18 in** **Area=20 in^2**
	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) **How big around do you think that the whiteboard is? (Getting interest and attention – Application Level)** **-give a minute for guesses and comparisons** **The distance around the outside and how big the flat part of the whiteboard is are examples of two math concepts that we have been working with a lot. Do you remember what these concepts are called? (Recalling – Knowledge)** **-take 2-3 answers** **Last week we were looking at math problems that put our formulas for area and perimeter to use. What does perimeter find?(Recalling specific facts and information – Comprehension level)** **-take 2-3 answers** **Yeah! Perimeter is looking at the RIM of our rectangle. It finds the distance around the outside of the shape. What does area help us understand? What are we finding? (Recalling – Comprehension)** **-take 2-3 answers** **Area is looking at how many square units there are in that space. We can measure these in inches, feet or even miles. It tells us how big the inside or a shape is.**
	Explain: (concepts, procedures, vocabulary, etc.) **Like we were learning about last week, perimeter and area tell us about the size of a shape. Perimeter is distance around it and area is the square units that cover a shape. So far, we are only looking at area and perimeter for rectangles. First we were able to explore how we might find it, but now we have formulas that can help us do it faster.** **In order to find area and perimeter, we have to know two things. The length and the width. Those are the two things that we will put into our formulas. We can use an L to show where our length goes and a W to show where our width goes.** **Perimeter is 2xL + 2xW** **Area is L x W** ***write formulas on board for students** **We can see how these formulas make sense with a square that is 3 inches long and 4 inches tall** ***draw a square with those number labeled** **If I want to get the perimeter first, how do I start?(Structuring learning)** **-give a few sec for answers** **The first step is to add the lengths. We have two of them so what we have done in the past is to add 4 + 4, but what is another way we can do that?(Structuring Learning)** **-give a few seconds to answer**

	2 x 4 would give us the same thing. That is why in our formula we can write 2xL or 2x4 for this example. The next step is to add the widths, so what numbers would we be using? (Structuring Learning) **-give a few seconds** **Yep! We are going to add on our widths. We already know that we can do 3+3, and like last time we can change that to 2x3. Now we would add our Lengths and our Widths to get the total perimeter and we can know the distance all the way around this rectangle. If we add 2x4 + 2x3 what do we get?** **-give a second or two for thinking and answers** **Yeah! 2x4 is 8 and 2x3 is 6 so 8+6 is 14.** **It works the same way for area. We can use our rectangle that is 3 inches long and 4 inches tall. We need to know how many square units fit inside of the square. We could draw really nice lines all the way through and count out how many units we have, like we do on our hundreds chart, but the formula works faster. First we can look at it with our lines** ***draw two lines through one way and 3 lines through the other way to get a 3x4 rectangle** **If we count it out we can see how many squares we have, but does anyone see a faster way to do it? (Structuring and Redirecting learning – analyze)** **-give a few seconds for answers** **I think this is actually super cool, because this formula makes our lives a lot easier. If we take the length times the width, if we multiply them, we can know how many squares will fit inside. For this rectangle, it is 3x4 which gives us what for our final answer? (Diagnosing and Checking)** **-give a second for them to think** **Yep! 3x4 is 12, and we have to remember that the units change here. Does anyone remember what we used for units last week?** **-wait a second for them to answer** **With perimeter we absolutely can use inches, but for the area we use units squared. This problem would have inches squared because inches are our units!** **What is still confusing about using formulas for these types of questions? (Allowing expression of effect)** **Area and perimeter are good math skills to learn, but they also are important because they can be used in normal life. Lots of people who work in construction or engineering need perimeter and area to plan well for a building. Or if you want to know if a rug will fit in your room or it you have enough paint for a wall, you need perimeter and area. What is another real life problem that we could solve with area and perimeter? Would a formula help you or would it be easier to work it out another way?(Encouraging higher level thought processes – Application, Analysis)**
	Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions) **Today we are going to be practicing area and perimeter in real life by finding out how big some things are in the classroom. I am going to pair you up to work on this, but we are going to find three things in the room with our partners that we can measure. Each pair will need one ruler and one tape measure that I have in the front of the room. Our shapes need to be rectangles because that is what our formulas work for.** **I want you to find the length, in inches or feet, and the height in inches or feet but it has to be the same unit for the whole rectangle. Those are the only two measurements that you need. Once you have measured something you should use the formulas for perimeter and for area to find both for each one of our shapes. I will put our timer on for 10 minutes so that we have plenty of time to work and if you finish quickly you can try to find the thing in the room with the biggest area or find a hidden rectangle to measure that other people might not have found. Either way we need to be working the whole time.** **I will be available for questions, and we are able to go into the hallway at a level 1 volume if we would like to measure out there. We will be able to compare some of our surprising calculations after the timer is up, but we need to stay at a level 2 volume in the classroom until then. Does anyone have questions on the activity? (Managing the classroom)** **-wait for questions, repeat possible on time given, formulas, and where materials are. If it is individual lack of understanding consider one on one clarification but if it is a common mistake address to whole group** **Alright mathematicians! We are ready to measure! I will be floating to help answer questions!**

	After giving them time to work, call their attention together again. "Alright mathematicians! We are going to switch our formula brains to see how else we might show what these measurements look like. On this website *have pulled up on the board or in the google classroom* we will begin to enter in the objects that we measured from our classroom. This website allows you to graph shapes to see the area and perimeter, so our first step is to enter the measurements that we have gathered from the classroom and generate the graph. Next I want you to take a screenshot of the graph that you have generated and upload it onto our class discussion for perimeter and area so that we can see what our classmates got and what may have been surprising. You have a couple of different ways that you could enter in the information so I want you to begin by exploring the website and graphing your objects on your computers. You will have 8 minutes to explore the website and have all of your information entered. If we have questions we will ask our work buddies but I will be floating to help you as well. Are we within whispers reach of our work buddies?(Managing Question) **So lets stay in order. Our first step is to explore the website and enter our information. Next we will screenshot the graph that it generates and upload it to the perimeter and area discussion to compare. Are we all ready? Let's get graphing!"**
	Review (wrap up and transition to next activity): **Time is up mathematicians! It is time to bring it back to our desks. Were there any perimeters or areas that surprised you? Were they bigger than you expected? (Evaluate)** **-3-4 answers** **Was the formula easy to use or did it still feel confusing? (Allowing Expression of Effect)** **-get a read on the group as a whole, a few seconds of responses** **How did we feel about trying to use this website? (Allowing Expression of Effect) What could a website like this help with? What jobs might use graphing technology like this? (Encouraging higher level thinking - Synthesis)** **-Give 3 minutes to discuss** **Good! I'm glad we got to explore our classroom a bit more! Lets put these papers in the math bin with our names and numbers and then head back to our seats for reading.**

Formative Assessment: (linked to objectives) **Progress monitoring throughout lesson- clarifying questions, check- in strategies, etc.** **Make sure kids are using the formulas while you float, that is required for the lesson itself, check that they are using the right units and keeping track of what is the length and what is the height.** **Group Discussion Pre-Assessment - How big around do you think that the whiteboard is?** **-give a minute for guesses and comparisons** **If I tell you that the white board is 5 feet long and 4 feet tall, what is the perimeter and the area? Write it on your whiteboard and show your work.** **-give a minute for writing** **Everyone hold up your boards (look to see how each did, watch for wrong answers and if any refreshers are needed on the concepts) Okay so who thinks that they have Perimeter? How did you get that?** **Who thinks that they found the area? How did you find it? Based on this, can I get a thumbs up if they feel familiar, thumbs to the side if you only remember some about area and perimeter, and thumbs down if you feel like you need a total refresher on what those two terms mean.** **Formative Assessment – Students will be able to share one of the examples that they found throughout the**	**Summative Assessment (linked back to objectives)** **End of lesson:** **They will have the area and perimeter for three things from the classroom calculated by using the formula and will have their work shown.** **If applicable- overall unit, chapter, concept, etc.:**

classroom and show their work. Importance is not measuring, but using the formulas and computing perimeter and area. Students will be assessed on how they used the formulas so that further instruction can be given if they did not have a total understanding of how to put the formulas into use. Just adding the sides for perimeter is not enough, formulas have to be used. **Consideration for Back-up Plan:** **If students are not understanding or are out of control we can return to the group and walk through it as a whole. I will use a tape measure for one or two objects in the front of the room to help them see how to plug it into the equation but still let them do the math on their own.**	

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):
Just to make sure that I am well prepared and able to give examples it would be good to have an extra more specific example that I can refer to if the kids want to see one. I have one problem written out in the explain but having another problem prepared would be helpful so that I don't need to think of one on the spot. Overall, pretty well put together and well differentiated, could have more supports for kids who feel uncertain about how to use a formula. Could even give a sort of definition for a formula if the kids have not worked with them before.

The group that I shared with did not have critiques on the technology portion, they agreed that it would work well to let the kids visualize the area and perimeter in a different way while improving their technology skills

Appendix C

Ella Konieczka - Math

Emily Dorn - Science

Lucy Bartholomew - English Language Arts

Olivia Fredock - Art

Shelby Nelson - Social Studies/Geography

Grade: 6

Unit Topic: Mount Everest

Course/Subject: Interdisciplinary

Approximate Time Required: 2 Weeks

1. **Main Purpose of the Unit**
   The main purpose of this unit is to familiarize kids with the physical aspects of Mount Everest and it is significant.
2. **Content Standards**
   a. **Geography - G.6_12.1 Describe the physical processes that shape the Earth's surface and how these affect the lives of people who live there. (G.6_12.1.2 Explain the factors that cause different types of climates and ecosystems, and their latitudes/locations.)**
   b. **Math - 6.RP.2 Understand the concept of a unit rate associated with a ratio a:b with b ≠ 0, and bb use rate language in the context of a ratio relationship.**
   c. **Science - MS-ESS2-3 Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of past plate motions.**
   d. **Art - VA:Cr2.6.a Design or redesign objects, places, or systems that communicate needs of diverse users while trying new ideas, materials, methods, and approaches.**
   e. **Reading - RI.2.6 Determine a central idea of a text and explain how it is conveyed through particular details.**
   f. **Writing - W.3.6 Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use**

narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.

3. Performance Objectives

The student will be able to:

   a. Geography - Explain how Mt.Everest's elevation, longitude, and latitude affect its climate.
   b. Math - Understand rates and ratios in relation to how quickly a climber is moving up the mountain and how high they have gotten.
   c. Science - Understand the movement of tectonic plates and how the interaction between surfaces can result in different land forms.
   d. Art- As a group make a model of Mount Everest, using a paper bag.
   e. English Language Arts - Read biographies of Mount Everest Climbers and write an imaginary biography of their own experience climbing the mountain.

4. Content Outline
   a. The formation of mountains
      - Tectonic plates
      - Pangea
      - Physical description of the mountain
      - Continental Drift
   b. Location
      i. Elevation
      ii. Longitude & Latitude
      iii. Climate
   c. Climbers
      i. How many people climb Everest?
      ii. How long does it take to climb Everest?
      iii. Who are some specific people who have climbed?

5. Procedures and Activities
   a. Discussion
   b. Group Work
   c. Small-group reading
   d. Measurement
   e. Independent reading
   f. Technology Integration
   g. Peer teaching/collaboration/cooperation
   h. Journal entries
   i. Movement
   j. Tectonic plate lab

6. **Instructional Aids and Resources**
    a. ***High Adventure: The True Story of the First Ascent of Everest*** **by Edmund Hillary (https://www.ducksters.com/biography/explorers/edmund_hillary.php)**
    b. **Video of Edmund Hillary and Tenzing Norgay: https://www.youtube.com/watch?v=X4egTHmDYho**
    c. ***No Summit Out of Sight*** **by Jordan Romero**
    d. ***The Kid Who Climbed Everest: The Incredible Story of a 23-Year-Old's Summit of Mt. Everest*** **by Bear Grylls**
    e. **Maybe *The Worst-Case Scenario Everest* by Bill Doyle and David Borgenicht?**
    f. ***The Young Adventurer's Guide to Everest*** **by Jonathon Chester**
    g. ***Into the Unknown*** **by Steward Ross**
    h. ***Conquering Everest*** **by Natalie Hyde**
    i. ***Summiting Everest*** **by Emma Carlson Berne**
    j. **Image of Mount Everest (for modeling)**
        Resources:
        - **Paper bags, cardboard, paint**
    k. ***Plate Tectonics and Theory of Continental Drift*****: https://www.britannica.com/video/167290/land-Earth-continents-positions-landmass-Pangea**
    l. ***The Sid Shuffle - Ice Age Continental Drift*** **https://youtu.be/uMuJxd2Gpxo**
    m. ***Where is Mount Everest?*** **https://www.amazon.com/Where-Mount-Everest-Nico-Medina/dp/0448484080/ref=asc_df_0448484080/?tag=hyprod-20&linkCode=df0&hvadid=312678886999&hvpos=&hvnetw=g&hvrand=2522161539720823421&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=9020933&hvtargid=pla-451703118158&psc=1**
    n. **Graham crackers and frosting**
    o. **What is the location of Mt. Everest in terms of longitude and latitude? *https://www.sidmartinbio.org/what-is-the-location-of-mount-everest-in-terms-of-latitude-and-longitude/***
    p. **Powerpoint used as an aid to explain finding the longitude, latitude, and elevation as well as discuss climate.**

7. **Assessment/Evaluation**
    a. **Labeling, measuring, and comparing - find the longitude and latitude of Mt.Everest, the school, and another location outside of the U.S and label the on a map. Then compare and contrast the climates of the three locations using a venn diagram.**
    b. **Graphing and rates - Students will find the rate that a climber is moving up**

Everest to show understanding of rates and ratios. They will each put their individual climber on the class mountain showing how far they would have gotten after a certain amount of time.

c. Completion of Mount Everest model- assessed on completion of the model and group work . Students will also present models to the class.

d. Formative Assessment - Complete tectonic plate lab with notes on observations.

e. Discuss and identify central ideas of biographies as a class; individual creative "biography" will be their formative assessment

Appendix D

https://docs.google.com/presentation/d/1z_0soukeuYxSx-fJBz_jDykzf8C6TF_6/edit#slide=id.p1

Appendix E

https://docs.google.com/presentation/d/1sPSg_tx-DORQojU9c5IM_5Ndx19oYvWG/edit#slide=id.p1

Appendix F

Name:_____ Date:_____

Figurative Language Test: Similes and Metaphors

True and False Questions: For each question, decide if the statement is true or false. Circle the letter T for True and F for False.

1. T or F – Metaphors compare two things using the words like or as.
2. T or F – Similes and metaphors are used to prove a point or clarify an idea.
3. T or F – There is not a difference between similes and metaphors.
4. T or F – Metaphors say that one thing IS another thing, not that they are just similar.
5. T or F – Similes compare two things, which are often objects or people.

Matching Questions: Match each of the following similes or metaphors with the meaning that makes the most sense. Write the letter that matches it after each number. Do NOT draw lines so that your answer is obvious and easy to read.

1. The grocery store aisles were like a maze. _____
2. The rabbit's fur was a blanket on my lap. _____
3. Mom is like a bear in the morning. _____
4. Jason was a fish in the swimming pool. _____
5. Watching the game was like watching paint dry. _____

a. They are both boring.
b. They are both confusing.
c. They both are very skilled swimmers.
d. They are both soft and warm.
e. They are both angry and intimidating.

Multiple Choice Questions: Each question will have either a simile or metaphor. Select the letter that shows the two objects being compared in each simile or metaphor.

1. Mrs. Brown's eyebrows are like caterpillars on her face.
   a. Eyebrows and face
   c. Mrs. Brown and eyebrows
   b. Caterpillars and face
   d. Eyebrows and caterpillars

2. Holden is as tall as a skyscraper.
   a. Holden and skyscraper
   c. Holden and tall
   b. Tall and skyscraper
   d. Is and tall

3. Megan is a computer when she solves math problems.
   a. Megan and math problems
   c. Megan and computer
   b. Computer and math problems
   d. Computer and solves

4. Lily's legs were jelly after she ran the race.
   a. Lily and legs
   c. Race and jelly
   b. Jelly and ran
   d. Legs and jelly

5. My classmates are as crazy as wild animals.
   a. Classmates and animals
   c. Classmates and wild
   b. Classmates and crazy
   d. Animals and crazy

Fill in the Blank Questions: Each question will have a metaphor or simile started, but each will be missing a word. Complete the metaphor or simile with a comparison that makes sense.

1. Her hair was as black as _____.

2. My hands are as cold as _____.

3. He is strong like an _____.

4. My brother's face was a red _____ when he got embarrassed.

5. She ran as fast as a _____.

Long Answer Questions: These questions will have two parts. The first will be answered out loud with the teacher during our test period. The second will be an essay to start in class, but then you will be able to take it home to work on it.

1. Out loud Question (to be done with the teacher) – In your own words, what are similes and metaphors and how can you tell the difference between them?

2. Take Home Essay – For this portion of the test, you will need to write a 1-2 paragraph narrative about an event or special occasion. This could be a real event from your life, or it could be one that you have made up. In these paragraphs you need to include 4 comparisons, either a simile or a metaphor, that could describe a person, place, or object from your story. Each comparison needs to be underlined and you need to write and S by it for simile or an M for metaphor to show which figurative language strategy you used.