Lesson Plan Template
Date: ___3/19_____
DB

Grade: 1	**Subject: Math (Day 4)**
Materials: printed outlines, projector, whiteboard	**Technology Needed: Projector**
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	**Guided Practices and Concrete Application:** ☐ Large group activity ☐ Independent activity ☐ Pairing/collaboration ☐ Simulations/Scenarios ☐ Other (list) Explain: ☐ Hands-on ☐ Technology integration ☐ Imitation/Repeat/Mimic
Standard(s) Math-1.MD.4 Organize, represent, and interpret data with up to three categories. Ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another **Objective(s)** • By the end of this lesson, students will use their given or collected data to develop a bar graph with at least two different points of data entry. **Bloom's Taxonomy Cognitive Level:** **Applying**	**Differentiation** **Below Proficiency:** Students who are below proficiency will be given the instructions one piece at a time. They will be given support and prompts as needed and they will have the information the need printed clearly on a separate piece of paper to reduce clutter. **Above Proficiency**: Students will be guided to input more details into their graph or to add their own height or weight to compare as a data point. **Approaching/Emerging Proficiency: T**his lesson is designed for students approaching proficiency. **Modalities/Learning Preferences:** • **Visual:** Students will be able to create visuals and see the examples in the process of completion. • **Auditory:** Students will get the verbal instructions, verbally interact with the teacher and with peers, and will be asked to verbally explain their own thinking. • **Kinesthetic:** Students are shown the data collection piece through movement and kinesthetically sorting themselves. • **Tactile**: Students are applying their knowledge though constructing a graph.
Classroom Management- (grouping(s), movement/transitions, etc.) • Attention getters: clap a rhythm and wait for students to repeat the rhythm. Repeat as needed. Begin talking when students have voices off and eyes on me. Use this for transitions and instructions. • Dismissal: after instructions are given the teacher signs G-O in ASL than points towards the area the students are moving to next. • Give students time warnings as they work to keep them on task and give them a heads up before a transition happens. • Students will only be called on if they raise their hand in advance. • When students need reminders, it will be done gently and consistently and any ongoing distractions will be minimized.	**Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)** Students will be expected to follow the rules and procedures of the classroom. • At desks: students will sit at their desks, using their seating properly, following given instructions, and staying on task. • On rug: students will sit in their circle spot, crisscross, on their pockets. Their eyes will be on the speaker, and their voices will be off. Students will only be called on when their hand is raised. • While listening: students will be sitting up, on their pockets. Legs crisscrossed, and their arms in their own space. Students should have their eyes and bodies turned towards the speaker. • Questions: students will raise their hand and wait for the teacher to call on them when asking or answering a question.

Minutes	**Procedures**
	Set-up/Prep: Have projector and overhead camera set up, materials printed out, size for each animal and baby outlined on board if necessary. https://www.mathsisfun.com/data/graphs-index.html
5	**Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)** • "We are going to Organize the data we collected this week. First, I am going to show you an example. If you like chocolate ice cream go by the back table, if you like vanilla go by the rug, and if you like strawberry for by the door." Students will move around the classroom when they stop, input the data into an online pie chart. Call students back to the rug. • Show students the graph and ask "what information they can pull from this graph?" call on hand-raisers for guesses. "this is

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	called a pie graph, it is a way that we can take the information that has been collected and display it in a visual way. A way that we can see." • Input the same information into a bar graph and compare the two briefly. "what things are the same? What is different?"
5	**Explain: (concepts, procedures, vocabulary, etc.)** Explain 1: We have been learning about animals all week and now we are going to make a visual way to show what data, what information, we have collected. Your job today is to make a graph showing either the difference in size or weight between your adult and baby animal that you found yesterday and to turn it into a graph, just like we have been practicing this week. I am going to find the size difference in my narwhals." • First, I check through my research and find the information that I need. • Second, I decide what my unit of measurement will be. Demonstrate how to make a bar graph under the overhead camera, using 16.5 and 5 feet. The horizonal label will be the adult and baby animal and the vertical is what we are comparing and contrasting. "see, showing the information in a graph gives us a picture about how big the difference actually is!" Send students to their workstations to fill in this information Data and units. • Next we will put in our values, I think I will make my top most value 18 feet, so there is a little space. This means that all of my levels will increase by 2. Make marks • Send students back to their tables to finish this step. • After that I make the marks to show what information I want to show people. Input points on graph. Send students out to fill in these points and color in the bars. Check over student work We do: Project the blank paragraph worksheet under overhead camera. "Looking at a caterpillar and the information we have, where would we put the caterpillar? Where should we put the butterfly? What do I put on the side? What am I comparing and contrasting about the butterfly and the caterpillar?" Fill in worksheet based on student prompts.
20	**Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)** Give students blank bar graphs "let's work together to fill in a bar graph. If you write with your right hand, raise your hand." Tally number of students. "if you write with your left hand, raise your hand." Take tally. Also write down R who writes with both. Ask students to fill in the information on their own. Call for a volunteer to show theirs to the class. Talk about Like, noticed, and wonder.
3	**Review (wrap up and transition to next activity):** Show another collection of data that a student collected earlier in the week and have them fill in the graph on their own and submit on an exit ticket. Collect for summative assessment.

Formative Assessment: (linked to objectives, during learning) • **Progress monitoring throughout lesson (how can you document your student's learning?)** Progress will be monitored throughout the lesson using verbal and visual methods. • Throughout Engage and Explain potions of the lesson, there will be verbal checks as the teacher asks WH questions (who, what, when, where, why, and how) to check for student understanding. Questions include • Throughout the entire lesson, turn and talks will be used to allow students to put learning into their own words. • Throughout the lesson, thumbs up to show how much the student is confident they understand the material will be utilized. • During the Explore part of the lesson, the teacher will be walking around to visually monitors student progress, their level of on-taskness, and to ask WH questions. Formal Formative assessments: • Graphing organizers throughout the lesson. Students should be filling in the organizer throughout the guided steps. • Students will complete one graph independently and their progress will be checked before moving on to the final summative assessment.	**Summative Assessment (linked back to objectives, END of learning)** Informal: At the end of the lesson, students will share and compare their graphs with a peer buddy and be given an exit ticket to move on to the next activity. End formal assessment: Exit ticket. Display a collection of data that a student collected earlier in the week. Give a question that they will need to answer through the creation and application of a bar graph.

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):

The students had background knowledge in compare and contrast from the reading lesson the day prior and that morning and had some knowledge of similarities and differences but had never made any kind of chart to show the information. Background knowledge is something that I know I will

appreciate in the older grades to move learning forward. I am glad that I was able to see what it is like to teach the basic concepts for the first time. For this week I had a much more accurate understanding of the level at which to start instruction. I think that assuming that students had never heard of anything in this lesson before helped me gear this lesson toward the younger grades.

I am less than pleased with how the lesson worked out but there were some good points. I utilized scaffolding well and the lesson went all around smoothly in terms of classroom management. This lesson was difficult to teach because of some assumptions that I made. For starters the bar graph I made was not even and the values did not line up with the space to create the graphs. This was not evident until after I had printed out the copies and than it was too late to find a new graph. Even so, an askew graph was better than a blank piece of paper. The second thing that made the lesson difficult was that this lesson had a research piece where students needed to know the size of baby and adult animals to compare in their books and the website, pebble go, did not have the same consistent information across all of their animal pages. I did not want to let students search the web on their own so for the students who needed the information my practicum teacher and I wrote down the sizes and gave those to the students.

In the future I think it would be really helpful to be able to have a math rotation and work with students in smaller groups to give them feedback in real time as they are learning these concepts. I think that incorporating more of the kinesthetic sorting in a floor diagram would have been good. Preparing questions before hand would have been good because “what hand do you write with” was unexpectedly difficult for the first graders to decide.