**Lesson Focus:** Identifying Angles.

**Context:** This is the second lesson in this unit. The students have been studying the basics shapes (square, rectangle, triangle, and circle) and just learned quadrilaterals.  Students will work with angles and a protractor and try to classify the properties of each one using a math dictionary.  Students will use their knowledge that they find on angles and match the angle with the name.  Students will work in their math journals to write definitions of the different angles.  Students will make flashcards out of note-cards and write the name of the angles on the front and an example and definition on the back.

**Lesson Topic:  Acute or Obtuse, Right? That is the Question!**

***Lesson Objective:***

Angles: Acute, Right, and Obtuse

**Materials and Preparation**

Whiteboards

Pens

Pencils

Paper

Protractor

Note-cards

Math Journals

Tape

Posters

Math Dictionary

Visual timer

Visual Schedule

Steps written on the board so students know what is next and can refer to it later if the need to.

**Things I adapted for this lesson:**

I made sure it was an active activity that they would be able to stand and move if needed. I made sure students could work together so everyone can share their ideas. I used a visual timer and made sure students knew when time was almost up. I gave them plenty of think time and made sure it was a hands-on.

**Opening:** Pull out the protractor, and ask if they’ve ever seen this math tool before.  If so, ask where did they see it and what was it being used for?  Ask them if they think they know what it is used for or what we will be using it for?

**Entrance Expectations**

Tell students that they will be learning about angles and understand the concept of those angles and briefly touch on circles and how many degrees circles have, since that is what the concept will lead to.   Model what they will be doing for the teamwork activity.

**Review (Previous Lesson / skill):** I will go over quadrilaterals briefly and then refer back to them when going over angles.

**Body of Lesson:**

**Activity 1:** Show the students the different types of angles.  Explain what acute, obtuse and right angle means.  Show them the posters for each angle.  I will have different angles on the table and then they have to work together to place them on the correct poster. Place the tape on the table.  **Model** for the students while thinking out loud, what to do for the activity; “Hmm, I wonder what angle this is?  I am going to guess it is an acute angle because it is smaller than 90° and when I hold a piece of paper up to it, I can’t see it, so I know that it is not obtuse or right.   So I am going to get some tape, and then walk over to the poster that says acute and tape it on there.  Then I will come back and tag the next person’s hand so they can go.”  **Prompt** them for any additional questions that they may have.  I will show them where they could look up an angle if they were not sure.  I also told them that they could work together for each angle if needed.  I will give you 5 minutes. Then I will **check** the posters to see if there are any changes that need to be made to them.

**Activity 2:**

Take out the long piece of string.  Tell the students that the three of them will be using the string to make angles just like they made their quadrilaterals with their bodies while holding the string.  **Model** for the students first, to show them what I want them to do with the string.  Then, have the students make an acute, right and obtuse angle all different sizes and degrees.  I will have them communicate with each other to move the string.  **Prompt** them for the correct size or degree for whatever angle they are making.  **Check** to make sure they are all working together and that no one person is dominating the activity. Answer questions if unsure of how to make an angle or if they need some help.

**Closing/Transition:** Draw an angle on the board using a pen and have them hold up the correct name of the angle.  That way I can check for each individual’s comprehension instead of just having one student tell me the answer.

* **Review:**

Put the name of an angle on the board and have the students draw the correct angle.

* **Preview:** Tell students that tomorrow they will be using their knowledge of

shapes to be making note-cards/flashcards to bring their math journals.

**Follow-up Activity/Independent Work:**

* **Homework:** Find different angles at their home or around town and either bring it in or explain what is was and where they found it.  If possible, bring pictures of the angles instead.
* **Transition Instructions / Expectations**

Students are expected to understand the properties and the names of the different angles and be able to identify them.