Length, Height, Big, & Small

Kyla Baker · Kindergarten · Mathematics: Measurement – Length, Height, Big, & Small

Core Competencies:

Communication

- Students will participate in individual and group work to simultaneously share knowledge and gain new skills: I can ask and respond to simple, direct questions.
- Students will compare objects and use applicable language to interpret and present their findings: I can understand and share information about a topic that is important to me.

Thinking

- Students will utilize items that are novel to them in order to place values upon those items using the prescribed terminology: I get ideas when I play.
- Students will observe objects and compare them using non-standard measurements to evaluate attributes: I can identify criteria that I can use to identify evidence.
- Students will be questioned about the attributes of comparable objects in order to examine them: I can explore materials and actions.

Personal & Social:

- Students will be presented with problems which are attainable: I can show a sense of accomplishment and joy.
- Students will recognize when they are struggling and act accordingly: I can persevere with challenging tasks.
- Students will work with others to solve questions: I can solve problems myself and can identify when to ask for help.

Big Ideas:

- Objects have attributes that can be described, measured, and compared.

Curricular Competencies:

Students will be able to:

- Comparing and identifying heights: tall, small, taller than, smaller than, tallest, and smallest.

Content:

Students are expected to know:

- Terminology specific to height, width, length, mass, and capacity: longer than, shorter than, taller than, smaller than, tallest, smallest, wider than, heavier than, lighter than, same as, holds more, holds less

Incorporation of Aboriginal Education:

First Peoples Principles of Learning:

- Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).
- Learning involves patience and time.

Diversification/Differentiation:

- Students can work in pairs
- Teacher can suggest areas where Items can be found (for example have you tried the math tub area

Assessment Tools & Strategies:

- Observation – watching to see if the students are finding the appropriate items
- Review Papers – see if the drawings show the comparisons with height and length

Cross-Curricular Connections:

English Language Arts – learning to use math specific vocabulary

Resources/Materials:

- Book: *Big and Small: with Northwest Coast Native Art*
- Class Set of Aboriginal Figures
- Pencils

- Whiteboard & Marker
- Popsicle Sticks with Student Names
- Either a Hard or Electronic Picture of the Aboriginal Figures with Labels

Method:

Prep: Have the class of Aboriginal figures in a container for students to choose during the lesson (if there are not enough for a class set the activity can be done in pairs, create a visual of those figures with labels to help students who may struggle with identifying the figures

Lesson:

1. Create a T-chart on the board with on side titled 'Big' and the other Small'
2. Introduce the book, inform students that it will show pictures of things that are big and small and that we will have to sort the items in on the T-chart made on the board
3. Tell students it is important that they are listening and watching since you will be using the popsicle sticks to choose someone to help us decide which side the picture should go on
4. Read the book, say the two things and show the book slowing to the students, select a popsicle stick and ask that student whether the thing in questions is big or small – stop it students are calling out – continue this until the book is finished
5. Remind students that in our measurement unit we have done length, height, and we just read the book about big and small items
6. Tell students you have a container filled with more figures, each person will have one (or one per group of two if necessary) and you will ask them to find additional items using the measurements terms we have learned so far
7. Show students the hard or electronic copy of the labelled picture of the Aboriginal figures; going back to the popsicle sticks ask those students if they can see what animals the pictures represent – reading the label if they don't recognize it
8. Have each student grab a figure to use during the exercise, tell them when they have their figure to look at the picture we viewed (or if they remember) so they know what animal they have
9. Inform students you will ask them to locate items to compare their animals too, once the direction is given tell them you will count down from 15 and once you are at 0 it should be quiet – remind students that they must stay in the classroom, as an option if students are struggling to find items tell them they can also thing of something; place all the popsicle sticks back in the container and inform students you pull popsicle sticks to ask what item they found or thought of
10. Tell students to find an item that is smaller than their animal – counting down – pull several popsicles sticks (2-4 depending on attendance that day) and ask those students what they found/thought of; if the student is unsure simply say that's ok or we'll give you a chance to try again and place their popsicle stick back in the container
11. Continue these steps but asking them to find something bigger, longer, taller, shorter
12. Have students switch their figures and repeat the exercise until all names are used in the popsicle sticks
13. Students can play with math tubs once the activity is exhausted