

(3) Height of Classroom Items

Kyla Baker · Kindergarten · Mathematics: Measurement - Height

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 be asked to find another item that is smaller or taller if they finish quick
- Students can work together if they are struggling since many items are similar that are being used

Assessment Tools & Strategies:

- Observation – during the modelling try to address any presented issues with the activity/terminology; review completed papers and address incorrect answers (preferably when students are handing their worksheets in, if time allows, or pull students away from math tubs to review learning gaps) – do so by having the student gather the items they had during the activity to be compared concretely and orally to the teacher

Cross-Curricular Connections:

English Language Arts – learning to use math specific vocabulary

Resources/Materials:

- Pointer
- Eraser
- Blank Paper
- Small Bears
- Dinosaurs
- Whiteboard and Marker
- Chain Links
- Kiva Blocks
- Medium-Sized Math Tub Person
- Crayons
- Pencils
- *Prehistoric Actual Size* by Steve Jenkins

Method:

Prep: Collect the five predetermined items of various heights for students to compare (dinosaur, small bear, medium math tub person, a kiva block, and a chain link) and place on tables (each student needs a set)

Hook: Read the book *Prehistoric Actual Size* by Steve Jenkins ask students which dinosaurs in the book are smaller or taller than each other or another object near by (ex. pen; if you have toy dinosaurs in the class these would be great to use)

Lesson:

1. Use a pointer, dinosaur, marker, eraser, and a small bear and ask students which item is tallest and which item is smallest
2. Order the items as students respond and model the language (ie. the marker is taller than the bear but smaller than the pointer)
3. Trace these items once they are in order from tallest to smallest, adding detail to make items look more realistic and label the tallest and smallest item; ask students which item would have to go first if they wanted to order them from smallest to tallest
4. Repeat the exercise, using the vocabulary, drawing, detailing, and labelling the items
5. Inform students they will do the same exercise with different items which have been placed on the tables
6. Have groups of items of different heights set up at the tables (dinosaur, small bear, medium math tub person, a kiva block, and a chain link)
7. Review steps to complete exercise (1) write name (2) order items form tallest to smallest and label (3) order items from smallest to tallest and label
8. Hand out/have students help hand out blank pieces of paper to record their work on
9. Students can play with math tubs once they are finished