

The learner will explore concepts of measurement.

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2.01 Compare attributes of two objects using appropriate vocabulary (color, weight, height, width, length, texture).

Notes and textbook references

A. Grab Bag

Materials: two colors of Unifix cubes; grab bag (brown paper bag or cloth bag)

Instructions: Place two colors of Unifix cubes in a grab bag. Ask each child to reach in the bag and get a handful. After removing the cubes, children connect the cubes to form a stick of each color. Children then compare to see which color has more and which has less. A class discussion may lead to the discovery of who grabbed the most/least of each color.

Variation: Each child could have one color of unifix cubes in his or her bag. Children each grab one handful, snap Unifix cubes together and compare towers to determine who has more. Children can keep score by using tally marks, collecting teddy bear counters, or dropping beans into a cup. Children can play until one child has won 10 rounds.

B. Friendship Chains

Materials: envelopes containing 10-20 linking cubes, lots-a-links, or large paper clips; adding machine tape.

Instructions: Children work in pairs. Each child chooses an envelope and connects the linking cubes or paper clips. The two children compare chains to find out which chain is longer and which is shorter. Have children check their answers by placing their chains on the adding machine tape and drawing lines to show the lengths of the chains.



C. Something Longer

Materials: a medium-sized tube (like a paper towel roll); box with a variety of long and short items (pencils, shoes, yardsticks, rulers, unifix cubes, etc.)

Instructions: Display a tube and ask children to take turns finding something in the box that is longer than the display tube. Each child compares his/her choice to the teacher's and to a friend's. ("My stick is longer than the teacher's and longer than Amy's object.") The attribute may be changed to wider/thinner, bigger/smaller, etc.

D. Spin to Win

Materials: Connecting cubes of two colors (10 per child); more/less spinner (see Blackline Master II - 38)

Instructions: Children work in pairs with two different colored cubes. By putting their hands behind their backs, each child breaks a stack of cubes into two parts. Each child then places one of the broken sections on the table beside the partner's section. After comparing the two stacks, each child states either, "I have more," or "I have less." Now the spinner is spun. If the spinner lands on "More," the child with more takes both stacks. If the spinner lands on "Less," the one with less takes both stacks. When one child has all 20 cubes spin the spinner one more time to determine if more (20 cubes) or less (no cubes) is the winner.

E. What's My Length?

Materials: a variety of classroom objects; string; scissors

Instructions: Each child chooses a classroom object and estimates the length of the object by cutting a string the estimated length. Have each child then compare the length of the string with the actual object. Is the string longer or shorter than the object?

Variations: Give pairs of children a length of string. They search for things that are about the same length as their string. Children can keep a record by drawing pictures. Estimate the circumference of a pumpkin or basketball, then compare.

F. Rod Sorting

Materials: Cuisenaire Rods (loose in a container)

Instructions: Have children take out three different Cuisenaire Rods. Ask them to put the rods in order from longest to shortest. Return the rods and draw three more. Repeat the process. Discuss why the yellow rod could be the longest or the shortest or in the middle. At another time, choose four rods and order from shortest to longest.

G. Light or Heavy

Materials: a variety of objects; classroom graphing material

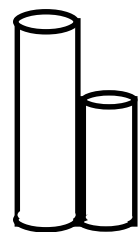
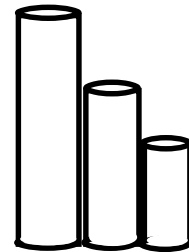
Instructions: Find objects in the classroom that are light/heavy. Discuss the objects and put all the heavy objects together and all the light objects together. Make a concrete graph with the objects. Use a balance scale for further exploration.

Variation: Sort objects by wide/narrow.

H. Tube Talk

Materials: paper towel or toilet tissue tubes - some cut to varying lengths

Instructions: Collect paper towel, tissue, and wrapping paper tubes. Show the collection to the children. Place two of the tubes (e.g., a tall tube and a short tube) in front of the group. Have children discuss the varying heights. Have children examine the other tubes and place one on either end of the tubes displayed. Discuss placement of the tubes. Which one is shorter? How have we arranged the tubes? Continue adding different tubes.



I. Snakes Alive!

Materials: clay balls or playdough

Instructions: Have children make snakes with the clay. Compare lengths (longest/shortest). Compare the thickness of the snakes. Use a balance to compare their weights. (Snakes may need to be coiled to fit into balance pans.)

J. What's In A Name?

Materials: inch grid paper or a grid of two to five rows of 15 identical squares; markers

Instructions: This is a good whole group activity. Choose a child's name and write the letters in the squares across the top grid with one color marker. Choose another child's name and write the letter with a different maker in the square on the next row. Have children tell which name is longer and how they know. Have children tell what the measurement unit is in squares. This activity can be done throughout the year. As children get more comfortable with comparing two names, grid more than two at a time, not to exceed five names.

M	A	R	L	E	N	E		
J	U	A	N					
L	E	E						

K. Comparing Body Parts

Materials: string; scissors

Instructions: Have children work with partners to measure the circumference of their heads with a piece of string, then cut the string. *Note:* Adults may need to do the cutting to avoid children handling scissors near faces and eyes. Using the string, each child tries to find other body parts or things in the classroom with the same measurement.

L. Comparing Length

Materials: familiar objects such as pencils, toothbrushes, forks, spoons, hammers, paint brushes, etc.

Instructions: Put the objects in a box. Ask the child to pick two objects. Have the child tell about the objects. "What can you tell us about your choices? Are they the same length? Is one shorter? Is one longer?"

Variation: A group of five or six objects can be put in order from longest to shortest.

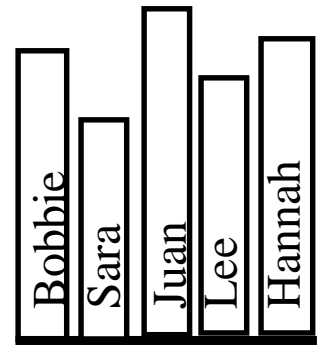
Extension: Measure objects with Unifix cubes, links and/or paper clips. Compare and discuss results.

M. Stand and Measure

Materials: paper adding machine tape; scissors; markers

Instructions: Work with two children at a time. Have one child hold one end of the tape at the base of the other child's heel. Unroll tape to top of child's head and cut to shoe height. Repeat with the second child, writing the name on their tape with a marker. Put tapes on the wall side by side. Repeat with pairs of children until each child has a turn. Discuss results: Who is the taller in each pair? If we put these four tapes together, who will be in the middle? How could we find out who is the tallest/shortest person in our class? Are there any children who are the same height? How do you know?

Notes and textbook references



2.02 Recognize concepts of calendar time using appropriate vocabulary (days of the week, months of the year, seasons).

A. Using Literature

Materials: books such as The Very Hungry Caterpillar by Eric Carle and Seven Blind Mice by Ed Young;

Instructions: After reading a story, have students write the days of the week on sentence strips and put them in the correct order. For homework they can sequence the cards and practice reciting the days of the week.

B. Some Poetry

Materials: Blackline Master II - 39

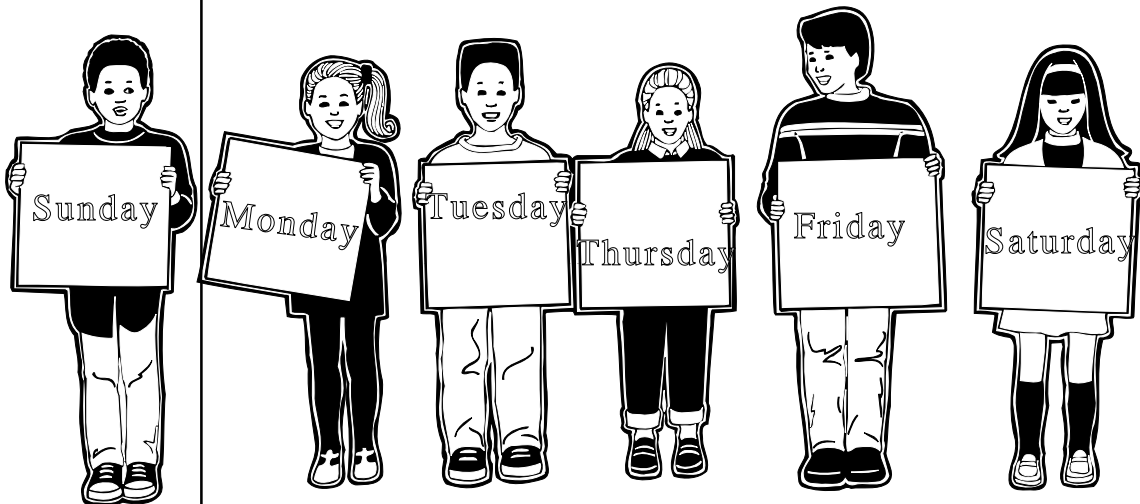
Instructions: Read our version of “Monday’s Child” and have students pantomime the actions.

C. Getting in Order

Materials: Blackline Master II - 40

Instructions: Distribute strips with days of the week to seven students. Ask another child to arrange the students in order according to the day each holds. An alternate task is to have one child holding a day be designated as “today” and have the class decide who has “yesterday” and who has “tomorrow”. Students then position themselves in proper order.

Variations: Duplicate enough day cards so that each student has one. Decide who will be “today” and have the rest of the class line up in order. This might be done on the first day of the month and then the entire calendar can be modeled. “Where are the weekends?” ; “Where are the Tuesdays?”



D. What’s Missing?

Materials: blackboard and chalk or posterboard and markers

Instructions: Write the days of the week on the blackboard or large posters. Students read them, then close their eyes while the teacher eliminates one day. Students open their eyes and decide which day is missing. This activity works well with small groups of students.

E. What Comes Next ?

*Notes and textbook
references*

Materials: Blackline Masters II - 42 and I - 43

Instructions: Distribute cards with months of the year to students.. Ask the class to decide who moves where to place the months in order. You might start with the current month and decide what is the next month, what month was last month, etc.

Variations: Students can line up behind their birthday month, their favorite month. Ask, “Why is ____ your favorite month? What happens in ____?”

F. What’s Happening ?

Materials: Blackline Masters II - 44 and I - 45

Instructions: Place cards or posters with seasons and discuss what occurs during various seasons. When is it hot? When do the leaves turn colors? When is Easter, July 4th, Christmas? your birthday?

Variations: Students can cut out or draw pictures of events that occur during certain seasons and make posters or a seasons book.

*Notes and textbook
references*