

Tips for Helping at Home

- Questions to ask:

What is it that you don't understand (have the student be specific)?

What information do you need?

What strategies are you going to use?

Can you guess and check?

Does this make sense?

What can you do to explain your answer to show others what you are thinking?

Does your answer seem reasonable?

- Think about when you use measurement in your daily routines. Making furniture fit just right in your home, cutting fabric, hemming clothes, or hanging pictures on the wall are all common examples of using your knowledge of measurement.
- Think about the many paths you walk around your home, both inside and out. Encourage conversations with your child about the most direct routes. Why is one path more efficient than another?

Websites

<http://www.rainforestmaths.com/>

<http://www.apples4theteacher.com/measure.html>

<http://www.funbrain.com/measure/index.html>

<http://illuminations.nctm.org/ActivityDetail.aspx?ID=73>

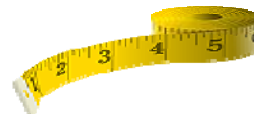
Mathematical Emphasis

Investigation 1—Comparing Lengths

- Using direct and indirect comparison to compare lengths
- Using a non-standard unit to measure length
- Comparing the effects of measurement using units of different size
- Communicating the need for using a standard unit

Investigation 2—Paths and Geo-Logo

- Moving along a path
- Visualizing and then representing a path
- Determining path length by iterating and counting units
- Comparing lengths of paths by comparing the number of units used to measure each path



Investigations in Number, Data, and Space



How Long? How Far? Grade 2

Measurement

Unit Goals:

- Students explore linear measurement by finding and comparing lengths and using nonstandard units to measure length.
- Students develop strategies for iterating and counting units, and explore the relationship between size and the number of units needed.
- Students construct and measure simple paths, estimate the length of paths, and investigate turns in both (or either) on and off computer activities.

Proposed Time Frame:

7 weeks

Vocabulary

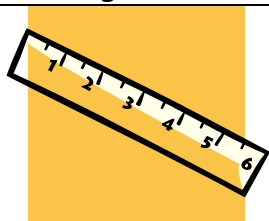
measure: To determine the range, dimension, extent, volume, or capacity of anything.

estimate: To form or give an approximate opinion or calculation.

width: The distance of something from side to side.

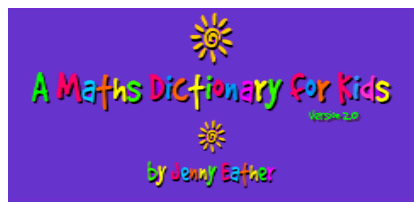
length: The distance of something from end to end.

Other important terms to know:
forward, back, right, left, turn



Glossary

<http://www.amathsdictionaryforkids.com/>



About Measurement

The focus of this unit is on using a variety of tools for children to make sense of measurement.

The main concepts to cover are measuring the lengths of different objects and finding lengths of paths.

Get your child involved: Consider a measurement scavenger hunt!

Look for objects that are about as long as some other item.

For example: What items around your home are about the length of a pencil? What items are the length two pencils?



Goodrow, Ann. Investigations in Number, Data and Space: How Long? How Far? Dale Seymour Publications, 1998.

Turn Over 10

Materials: One deck of Numeral Cards 0-10 (four of each) plus four wild cards

Players: 2 to 3

How to play: The object of the game is to turn over and collect combinations of cards that total 10.

1. Arrange the cards face down in four rows of five cards. Place the rest of the deck face down in a pile.

2. Take turns. On a turn, turn over one card then another.

- A wild card can be made into any number.
- If the total is less than 10, turn over another card.
- If the total is more than 10, your turn is over and the cards are turned face down in the same place.
- If the total is 10, take the cards and replace them with cards from the deck. You get another turn.

3. Place each of your card combinations of 10 in separate piles so they don't get mixed up.

4. The game is over when no more 10's can be made.

5. At the end of the game, make a list of the number combinations for 10 that you made.