Nontraditional Measurement Kit
2nd Grade

Nontraditional Measurement

Purpose: The purpose of this kit is to give students an opportunity to practice measuring things. In this kit, non-traditional ways of measuring things will be utilized. This kit will also help students understand why standardized measurement is necessary in the world.

This kit has four different activities: Scavenger Hunt, Hanger Balance, Units of Measure, and How Tall Is the Tower?

Scavenger Hunt

Purpose:

The purpose of this activity is to find items that "measure" according to the description of the items on the list. Students will discover that the size of items, measured in this way, is inconsistent.

Materials:

Scavenger Hunt list of items to be found
Clip board
Pencil

Directions:

1. Divide students into partners or small groups
2. Give each group a clip board, pencil and Scavenger Hunt list
3. Define the area of the Scavenger Hunt (this one is designed for outdoors, so walk around the yard to determine what space you want students to be searching in
4. Tell students how much time they will have to look for the items. Tell students they will need to bring each item back with them to share at the end of the Scavenger Hunt

Scavenger Hunt

Please find each of these items. You will need to "collect" the items to bring back with you. If it is something you cannot collect, you need to draw a picture of it.

1. A branch that is as long as your arm
2. A leaf that is as wide as your foot
3. A leaf that is smaller than your hand
4. A rock that you can hold in your hand
5. A stick that is longer than your hand
6. A bush that is as tall as your knee (you'll have to draw this one)
7. A rock that is smaller than your ear
8. A leaf that is as wide as your smile
9. A blade of grass that is as wide as your pointer finger
10. A branch that is taller than you

Written by: CynDee Zandes, Master Consultant for Consult 4 Kids. 2011

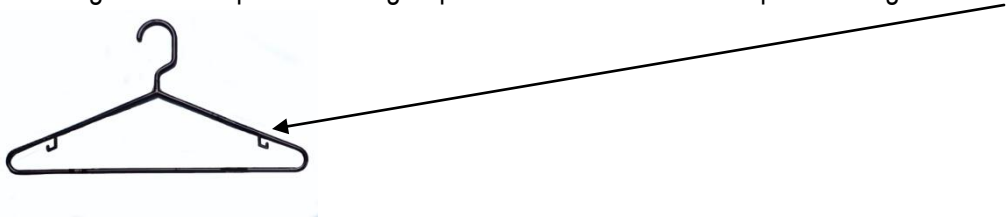
Hanger Balance

Purpose:

The purpose of this activity is to help students understand that measurement allows us to compare items by weight. For example, in the old question, which weighs more a pound of steel or a pound of feathers, what we learn is that they both weigh the same, but the steel comes in a much smaller package than the feathers. Students will have firsthand experience of this understanding.

Materials:

A clothes hanger for each pair or small group of students—needs to be plastic hanger with hooks on each end.



2 binder clips for each group

A place to hang the hanger where the hanger is able to pivot—perhaps a push pin in a bulletin board, a nail in a board, a clothes rack

A variety of small items that can be hooked together—paper clips (large and small), monkey from a Barrel of Monkeys, or can be clipped into the binder clip such as pieces of paper of different weights (cardboard, copy paper) leaves, sticks, or anything that can be held in place by the binder clip

Directions:

1. Collect a variety of items that you would like to weigh
2. Determine what you will use as the constant measure or weight—for example a tiny basket of plastic mushrooms

3. Remember that you will connect the tiny basket to the hanger by the binder clip.

Written by: CynDee Zandes, Master Consultant for Consult 4 Kids. 2011

4. Place the tiny basket on the hanger
5. Predict how much or many of the things you collected it will take to balance the hanger
6. Check out your prediction
7. If you are correct, then write the equation. If not, then continue to try to balance the two sides. If the balance (hanger) tilts to the side of the basket, you will need to add more weight to the other side.
8. Equation example: 1 tiny basket with 7 tiny mushrooms = five 2" squares of cardboard or
   1 tiny basket with 7 plastic mushrooms ≠ five 2" squares of cardboard

Units of Measurement

Purpose:

The purpose of this unit is to help students understand how important it is to use a standard measure.

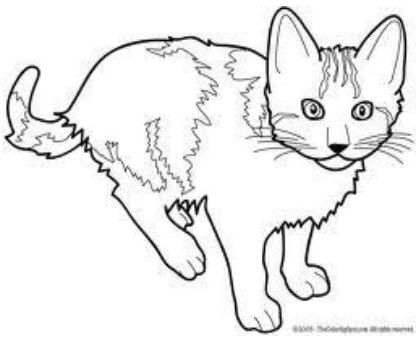
Materials:

- Pictures of different mammals
- Drawing paper
- Crayolas

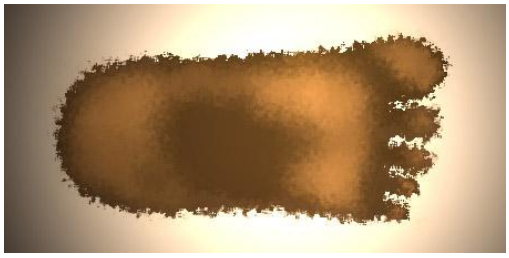
Directions:

1. Have each student trace and cut our his/her foot
2. Divide the students into partners or small groups
3. Give each group a picture of a different mammal
4. Ask students to determine the size and shape of the food for this animal
5. Students then draw the footprint that they believe represents the real size of the mammal and cut it out
6. Have students work together as a large group to measure the length of the room, the size of a table, or any other structure in the classroom
7. Have students prepare a chart that indicates “how many” feet long each item is
8. Have students discuss why it may be important to have a standard measure

 FOX	
 BADGER	
 OTTER	
 DOMESTIC CAT	

Written by: CynDee Zandes, Master Consultant for Consult 4 Kids. 2011

How Tall Is the Horse?

Purpose:

The purpose of this activity is to determine how big to make the horse that is described in the story. Remember, horses are measured in “hands”.

Materials:

Story

Handprints (1 from each student)

Lager piece of butcher paper for each group (probably 4 groups)

Pencils and crayolas

Directions

1. Read the story to the students
2. Discus the measurements
3. Divide the students into groups of 3-4
4. Have each group use the “measurements” given to draw a horse on the butcher paper
5. Have students share the horses with the other groups and explain how they decided how to draw the horse.

Written by: CynDee Zandes, Master Consultant for Consult 4 Kids. 2011

How Tall Is This Horse?

Facts:

While most horses are very large, some horses, miniature horses, are very small in comparison. You can see that in the picture above. These are Shetland ponies.

One way that horses can be measured is by hands. A standard hand measurement is 4 inches.

In this activity, we will using young people's hands not the standard 4" hand

Story:

Once upon a time a miniature horse came to town. The tiny horse was able to go places that a regular sized horse would never be able to go. In fact, this little horse was able to use a doggie door to get inside of people's homes. People did not like this so they called the Doggie Door Company and told them the town would no longer buy any doggie doors that the horse could walk through. The President of the Doggie Door Company wanted to keep his business so he agreed to make smaller doors. When he asked the people of the town to give him the horse's measurements, this is what he was told.

1. The horse is 8 hands tall, from the ground to the top of the head
2. The horse is only 6 hands from the ground to the top of its back
3. The bottom of the horse's tummy is 3 hands from the ground
4. From nose to tail, the horse is 9 hands
5. From the tail to the front of its chest, it is 6 hands
6. The head is two hands wide
7. Each leg is 3 hands tall and 1 hand wide

Written by: CynDee Zandes, Master Consultant for Consult 4 Kids. 2011

For more information, contact
Consult 4 Kids at

www.consultfourkids.com

Written by: CynDee Zandes, Master Consultant for Consult 4 Kids. 2011