

How to Read a Ruler Poster

Congratulations on your purchase of this Really Good Stuff® **How to Read a Ruler Poster**—a valuable resource for helping students learn to read a ruler and to understand equivalent measurements.

This Really Good Stuff® product includes:

- **How to Read a Ruler Poster**, laminated
- This Really Good Stuff® Activity Guide

Displaying the How to Read a Ruler Poster

Before displaying the **How to Read a Ruler Poster**, make copies of this Really Good Stuff® Activity Guide and file the pages for future use. Or, download another copy of it from our Web site at www.reallygoodstuff.com. Hang the *Poster* where students will be able to see it easily.

Introducing the How to Read a Ruler Poster

Ask students to describe what they already know about the numbers and markings on an inch ruler. Many students may already know that 12 inches make 1 foot, the length of a standard ruler.

Have students take out their own rulers and review the markings together while pointing to the *Poster*. Ask students to find the 6" mark, the 2" mark, and so on. Once students have demonstrated understanding of this concept, point out the marks in between each numeral. Direct students to use the *Poster* to help them identify the half-inch mark on their ruler as a starting place. Go through each measurement between the inches with students using the *Poster* as a guide.

Hands-on Fractional Measurements

Have students hold their own rulers as you point out the measurements on the *Poster*. Ask students to touch each of the inch marks on their own rulers, then the half-inch marks, the quarter-inch marks, the eighth-inch marks, and finally the sixteenth-inch marks. Each time, show students how the inch is divided into the number of equal parts named in the fraction. Here are some ideas you may want to point out to students:

- There are two equal parts of an inch when it is divided into halves. We write that fraction $1/2$. Make sure students realize that the half-inch marks are almost as long as the inch lines on most rulers.
- That same inch is divided into four equal parts by the fourths marks. We write that $1/4$. Make sure students realize that the quarter-inch marks are almost as long as the half-inch lines on most rulers.
- The same inch is divided into eight equal parts by the eighths marks. We write that $1/8$. Make sure students realize that the eighth-inch marks are almost the shortest lines on the ruler.
- The same inch is divided into sixteen equal parts by the sixteenth marks. We write that $1/16$. Make sure students realize that when they touch the sixteenths lines, they are touching every line on the ruler.

Color-coded Fractions of an Inch

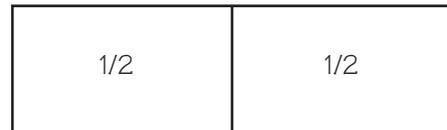
Copy and distribute the *Finding Fractions of an Inch Reproducible*. Using the *Poster* as a guide, show students how they are to color in the inch marks, half-inch marks, quarter-inch marks, eighth-inch marks, and sixteenth-inch marks on the appropriate sample rulers. For a challenge, have students find and color all the measurements they can on each ruler and trace the marks in the corresponding color. The sixteenth-inch sample ruler will be retraced many times, as students trace their halves, quarters, eighths, and sixteenths on the same lines.

Tapping Out Fractions of an Inch Song Reproducible

Copy and distribute the *Fractions of an Inch Song Reproducible*. Have students get out their rulers and explain that the lines on a ruler are so small that they will need to use just the tip of their fingernail to touch each mark accurately. Have students sing and interact with their rulers while tapping their fingernails on the appropriate ruler markings.

Equivalent Fractions

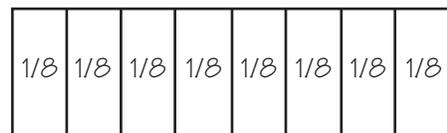
Tell students to measure and cut out three rectangular strips of paper that measure 5" x 2". Have them fold a strip in half. Label each half $1/2$.



Have students fold another strip in half and then into fourths. Label each section $1/4$.



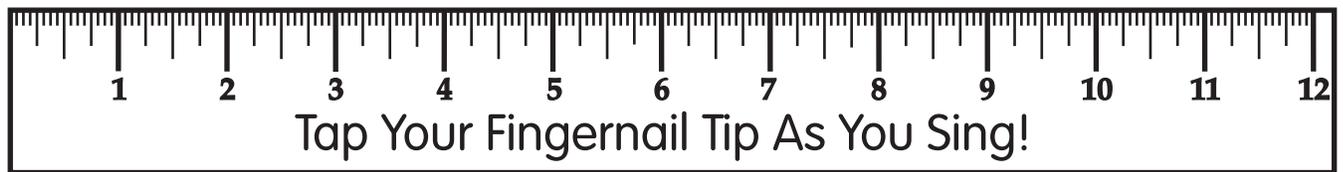
Point out to students that $1/2$ is the same size as $2/4$. Then have students fold another strip of paper into eighths and label each section $1/8$.



Point out to students all of the equivalent fractions between these three strips of paper. Use the *Poster* and make the connection to the measurements on a ruler, pointing out that $1/4$ " is the same as $2/8$ ".

Make a Craft with Measurement

Copy the *Measurement Craft Reproducible*. Place the reproducible, rulers, scissors, and colorful scraps of paper in a math center. Instruct students to follow the directions on the reproducible to make one of the crafts.



Fractions of an Inch Song

Directions: While singing this song to the tune of "Here We Go Round the Mulberry Bush," tap the tip of your fingernail on the fractional inch markings along your ruler for each verse. At the end, count all the fractional inch markings between any 2 inches on your ruler.

Tap your tip on a half of an inch,

Half of an inch, half of an inch.

Tap your tip on a half of an inch;

There's 2 in every inch!

(Spoken as you tap the marks): $\frac{1}{2}, \frac{2}{2}!$

Tap your tip on a quarter inch,

A quarter inch, quarter inch.

Tap your tip on a quarter inch;

There's 4 in every inch!

(Spoken as you tap the marks): $\frac{1}{4}, \frac{2}{4}, \frac{3}{4}, \frac{4}{4}!$

Tap your tip on an eighth of an inch,

An eighth of an inch, an eighth of an inch.

Tap your tip on an eighth of an inch;

There's 8 in every inch!

(Spoken as you tap the marks): $\frac{1}{8}, \frac{2}{8}, \frac{3}{8}, \frac{4}{8}, \frac{5}{8}, \frac{6}{8}, \frac{7}{8}, \frac{8}{8}!$

Tap your tip on a sixteenth of an inch,

A sixteenth of an inch, sixteenth of an inch.

Tap your tip on a sixteenth of an inch;

16 in every inch!

(Spoken as you tap the marks): $\frac{1}{16}, \frac{2}{16}, \frac{3}{16}, \frac{4}{16}, \frac{5}{16}, \frac{6}{16}, \frac{7}{16},$

$\frac{8}{16}, \frac{9}{16}, \frac{10}{16}, \frac{11}{16}, \frac{12}{16}, \frac{13}{16}, \frac{14}{16}, \frac{15}{16}, \frac{16}{16}!$

Measurement Crafts

Make a House:

1. For the first floor: Cut a **brown square** measuring $4\frac{1}{2}$ " on each side.
2. For a door: Cut a **black rectangle** measuring $\frac{3}{4}$ " x $1\frac{1}{8}$ ". Glue it to the center of the first floor.
3. For two windows: Cut two **yellow squares** measuring **1"** on each side. Draw a **1"** vertical line down the center of each and a **1"** horizontal line across the center of each yellow square. Glue the windows on either side of the door.
4. For the roof: Cut a **gray triangle** with a $4\frac{1}{2}$ " base. Make the other two sides of your triangle any length. Glue it on top of your $4\frac{1}{2}$ " first floor.
5. Decorate your house with bricks, shutters, a chimney, and so forth.

Make a Truck:

1. For the body of your truck: Cut a **white rectangle** measuring $7\frac{1}{16}$ " x $2\frac{5}{16}$ ".
2. For the cab: Cut a **gray square** measuring $1\frac{3}{8}$ " on each side and glue it in place on the "front" of the body of the truck.
3. For the windshield on the cab: Cut a **black square** measuring $\frac{5}{8}$ " on each side and glue it in place on the cab.
4. Customize your truck with wheels, decals, bumpers, and fenders.

Make a Flat-screen TV:

1. For the outside screen: Cut a **gray rectangle** measuring $5\frac{7}{8}$ " x $2\frac{7}{8}$ ".
2. For the inside screen: Cut a **black rectangle** measuring $4\frac{1}{8}$ " x $2\frac{1}{16}$ ". Glue it to the center of the gray outside screen.
3. For the floor stand of the TV: Cut a **black rectangle** measuring $\frac{9}{16}$ " x $\frac{3}{4}$ " and glue it underneath the gray screen.
4. For the platform of the floor stand: Cut a thin **black rectangle** measuring $\frac{1}{4}$ " x $1\frac{3}{16}$ " and glue it in place under the floor stand.
5. For an on/off button: Cut a small **white square** measuring $\frac{5}{16}$ " on each side to be glued anywhere around the TV screen.
6. Decorate by drawing your favorite TV show on the screen.

Challenge:

Write your own directions for a measurement craft!

Finding Fractions of an Inch

Directions: Using the How to Read a Ruler Poster, color-code each ruler below to show the noted markings.

