

# Gallon Man Bulletin Board

## RESOURCE GUIDE



## Putting It Together

- Laminate the Gallon Man Bulletin Board for durability.
- Display the Gallon Man Bulletin Board on a wall or a bulletin board.
- Refer to the diagram above for a picture of the Gallon Man Bulletin Board.

## Capacity Conversions

1 gallon = 4 quarts

1 quart = 2 pints

1 pint = 2 cups

# Activities by Subject

## Language Arts

**Gallon Man Songs** Have students create songs to go along with the Gallon Man Bulletin Board. Encourage them to create songs that are catchy and memorable to help them remember the conversions. Remind students that their songs can follow the same tunes as other familiar songs. Invite students to share their songs with the class.

**Gallon Man Stories** Have students write stories about Gallon Man. Encourage students to write about all of the things Gallon Man does for students or about what the world might be like without him. Invite students to give him special powers or write about what Gallon Man was like as a child. Display the completed stories around the Gallon Man Bulletin Board.

## Math

**Comparing Containers** Provide students with magazine and newspaper advertisements. Have students cut out pictures of containers that hold different amounts. Ask students to attach the pictures to sheets of paper and write the greater-than, less-than, or equal-to symbols to compare the amount each item could hold. To extend the activity, have students choose five images and place them in order from *holds the least* to *holds the most*. Display students' work around the Gallon Man Bulletin Board.

**Measuring with Rice** Invite students to see how capacity units are equivalent. Provide students with various cup-, pint-, quart-, and gallon-sized containers and rice. Model how to measure 2 cups of rice into a pint container to show equivalency. Allow students to continue to measure rice to see how much of each unit fits into other units. As an extension, have students use containers of various shapes and sizes that can hold the same amount to show that even though a container may look different, its capacity may be the same. *Caution: Before beginning any food activity, ask families' permission and inquire about students' food allergies and religious or other food restrictions.*

**I Have, Who Has?** Create a game where students are asked to listen to their classmates and find equivalent measurements. On a sentence strip, write one sentence and one question such as *I have 4 pints. Who has the equivalent of 2 gallons?* Write the answer and another question on a different sentence strip: *I have 4 quarts. Who has the equivalent of 2 quarts?* Write as many sentence strips as you have students so that each student gets to play. Shuffle the sentence strips. Give students time before the game begins to think of the different ways that someone could match their equivalents.

**Recipe Roundup** Create and display recipes for students to practice finding equivalent measurements using multiplication and addition. For example:

### ***Robot Rainbow Lemonade***

*5 gallons water*

*6 quarts lemon juice*

*4 pints red juice*

Write questions for students to answer based on each recipe (for example, *How much liquid in cups is used in this recipe? If each student were allowed to drink 3 cups of the lemonade, would there be enough for the class to drink?*). Ask students to convert each ingredient in the recipe into a different measurement (for example, 5 gallons = \_\_\_\_\_ quarts). Invite students to solve the problems in small groups and discuss their answers with the class.

**Measureland** Create a game in which students must practice addition and subtraction, as well as find equivalent measurements. Divide students into small groups. Write measuring directions such as *add 2 cups* and *subtract 4 cups* on index cards. Have students take turns choosing cards and following the instructions given. Allow students to keep the cards they choose to keep track of how much they have. The first player to reach a predetermined amount exactly (without going over) wins.

# Activities by Subject

**Radical Ratios** Use the Gallon Man Bulletin Board to explore ratios. Demonstrate that 1 gallon equals 4 quarts. Then, write the ratio 1:4. Ask students to write ratios for pints to cups, quarts to pints, and gallons to cups. Encourage students to think of other ratios such as feet to inches, meters to feet, etc.

**Fabulous Fractions** Use the Gallon Man Bulletin Board to reinforce fraction concepts. Demonstrate how to draw lines to divide each cup section in half. Ask questions such as *how many ½ cups are in 1 pint?* or *how many ½ cups are in 1 quart?* Have students use Gallon Man for reference. Have students divide the units further. Discuss the new fractions as a class.

**Capa-Cities** Encourage students to bring in clean cup-, pint-, quart-, and gallon-sized containers. Divide students into small groups. Have each group create a small city out of the materials. Invite students to calculate how much liquid their cities could hold in cups, pints, quarts, and gallons. Allow students to decorate and label their buildings and name their cities (for example, *Four-Gallon City* or *New Seven Quartsville*).

**Measurement Memorization** Use the Gallon Man Bulletin Board and this story to help students memorize equivalencies:

### **Land of Gallon**

*The land of gallon has 4 queens (quarts); each queen has 1 prince and 1 princess (pints); and each prince and princess has 2 cats (cups).*

**Measurement Manipulatives** Enlarge and make several copies of the cup, pint, quart, and gallon patterns (page 4). Give each student or group of students several of each pattern. Write problems such as *3 quarts = \_\_\_\_\_ pints* or *\_\_\_\_\_ cups = 3 pints* on index cards. Allow students to group their patterns to illustrate their answers. Encourage students to write their own measurement problems and exchange them with other students or groups.

**Estimation Station** Provide students with various unlabeled containers. Ask students to write estimates for how many units it would take to fill the containers. Then, have students use rice and standard measuring utensils (cups, pints, quarts, and gallons) to accurately measure how much each container will hold. Ask students to record the actual answers next to their estimates. Allow students to compare their estimates to the actual capacities.

## **Social Studies**

**Metric Measurement** Make one copy of the gallon pattern (page 4) for each student. Explain to students that not all of the countries in the world use the US standard system of measurement and that many countries use the metric system. Have students use books, encyclopedias, and the Internet to research the metric system. Have students write their findings on their gallon patterns. Invite students to share their findings with the class. Display the metric system facts around the Gallon Man Bulletin Board.

## **Suggested Reading**

*Pastry School in Paris: An Adventure in Capacity* by Cindy Neuschwander (Henry Holt and Co., 2009)

*Me and the Measure of Things* by Joan Sweeney (Dragonfly Books, 2002)

*The Healthy Start Kids' Cookbook: Fun and Healthful Recipes That Kids Can Make Themselves* by Sandra K. Nissenberg (Wiley, 1994)

*Millions to Measure* by David M. Schwartz (HarperCollins, 2006)

*Measuring Penny* by Loreen Leedy (Square Fish, 2000)

# Reproducible Patterns

