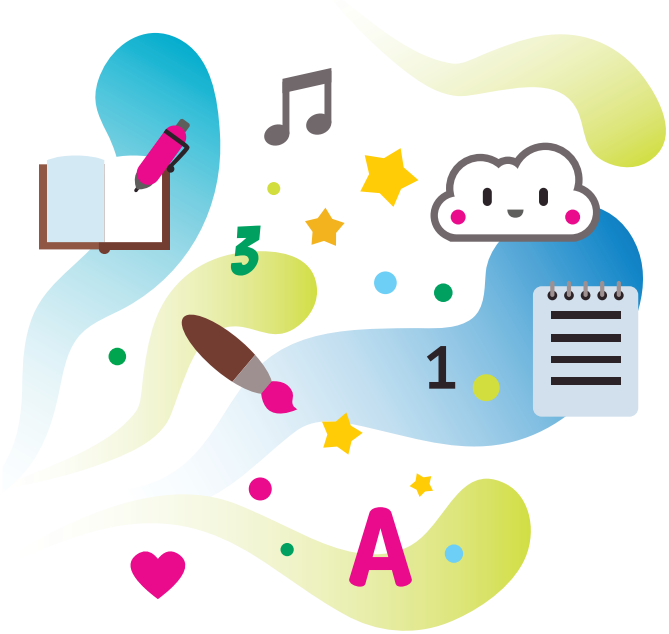
HEADS IN, HEARTS IN

18 USC 707

Math Activities

The Heads In, Hearts In family enrichment program encourages families to use their minds (putting their "heads in") as a tool to expand their knowledge around a variety of topic areas. By creating a shared educational experience, the family unit will work, grow and learn together, putting their "hearts in" to the process.



This unit contains the following:

- 3D Shapes
- Eggs-cellent Counting
- Guess Which Shape
- Gumball Equations
- Hungry Hedgehogs
- Marshmallow Structures
- Measure a Room
- Measurement Equivalents
- Measuring Liquids
- Photo-Graph
- Pie Die
- Skippy Clippy
- Spinner Math
- Stories Math
- Time: Before and After
- Twisting Place Values

Produced by the MSU Extension Educational Materials Team (*http://msue.anr.msu.edu/*).1P–05:2021-WEB–PA/LG WCAG 2.0

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4H1749MA MATH ACTIVITY

HEADS IN, HEARTS IN

Measurement Equivalents

Instructions for Set-Up

Supplies

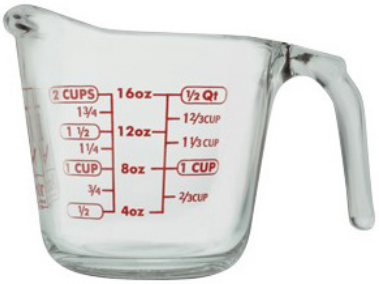
- ❑ "Guide for Families" handout
- ❑ Clear plastic standup display (optional)
- ❑ "Equivalent Liquid " Handout
- ❑ "Equivalent Dry" Handout
- ❑ 5–10 pounds of dry material such as flour
- ❑ Large bowl to hold dry material such as flour
- ❑ Water
- ❑ Large bowl to hold water
- ❑ 3–5 teaspoon dry measuring spoons
- ❑ Three to five ¼-cup dry measuring cups
- ❑ Three to five ½-cup dry measuring cups
- ❑ Three to five 1-cup dry measuring cups
- ❑ 3–5 liquid measuring cups with 2-cup capacity
- ❑ 3–5 liquid measuring utensils with 4-ounce capacity
- ❑ Pencils
- ❑ 6 large bowls
- ❑ Paper towels
- ❑ Display table

Activity Preparation

- Purchase or locate items on supply list.
- Print one copy of the "Guide for Families" handout. Laminate or place in a clear plastic standup display to allow participants to see it more readily.
- Print "Equivalent Liquid" and "Equivalent Dry" handouts.
- Put flour in a large bowl and water in another large bowl. Place on the table.
- Arrange the rest of the supplies on the table.

Liquid measuring cup

This can be used for measuring 1/2 cups to 2 cup measurements.



Dry measuring utensil

When measuring small units of dry materials such as teaspoons and tablespoons, be sure to scrape off excess materials with the flat side of a knife.

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Measurement Equivalents

Guide for Families

Learning Objectives

What you need to know:

Equivalence is when there are two ways to measure and talk about the same quantity. Equivalence can be applied in measurement, math, time, money and a variety of other areas. For example, one dollar is the same as 100 cents. It's the same quantity or amount of money but there are two different ways to measure and talk about it.

When you understand the different ways of measuring, you can **convert** or use a different tool to measure the same amount.

What you will do and learn:

You will practice exploring **equivalence** by measuring dry and liquid materials with different measuring tools. By measuring the materials with multiple tools, you will learn more about the different ways to measure and different units of measurement.

Instructions

1. Take the "Equivalent Liquid " handout and follow the instructions to measure water using different measuring tools.
2. Take the "Equivalent Dry " handout and follow the instructions to measure a dry material using different measuring tools.

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Measurement Equivalents

Equivalent Dry Handout

Take the liquid measuring tools including a tablespoon, teaspoon and liquid measuring cups and utensils. Use those utensils to find the measurement equivalents below. Follow the example below:

Example: Measure one tablespoon of water and place it into bowl #1. Then, use a teaspoon to scoop the water out of bowl #1 into bowl #2, counting how many teaspoons it takes. This is how many teaspoons are in a tablespoon. You will then write that number in the blank space. See the example below to see how to write out the liquid equivalency.

1 tablespoon = __3__ teaspoons

Repeat the process from the example to find the measurements below.

1. 3 tablespoons = _____ teaspoons
2. 8 tablespoons = _____ teaspoons
3. 1 cup = _____ ounces
4. 3 cups= _____ ounces
5. 1.5 cups = _____ ounces
6. 2 ounces = _____ tablespoons

Measurement Equivalents

Equivalent Liquid Handout

Take the dry measuring tools including a tablespoon, teaspoon and tools to measure a dry measuring cup and two bowls. Follow the example below:

Example: Measure one tablespoon of flour or other dry material it into bowl #1. Then, use a teaspoon to scoop the flour out of bowl #1 into bowl #2, counting how many teaspoons it takes. This is how many teaspoons are in a tablespoon. Write that number in the blank space.

1 tablespoon = 3 teaspoons

Repeat the process from the example to find the measurements below.

1. 4 tablespoons = _____ teaspoons
2. 6 tablespoons = _____ teaspoons
3. 1 cup = _____ tablespoons
4. ¼ cups=_____ teaspoons
5. ⅓ cups = _____ tablespoons
6. ½ ounces = _____ tablespoons