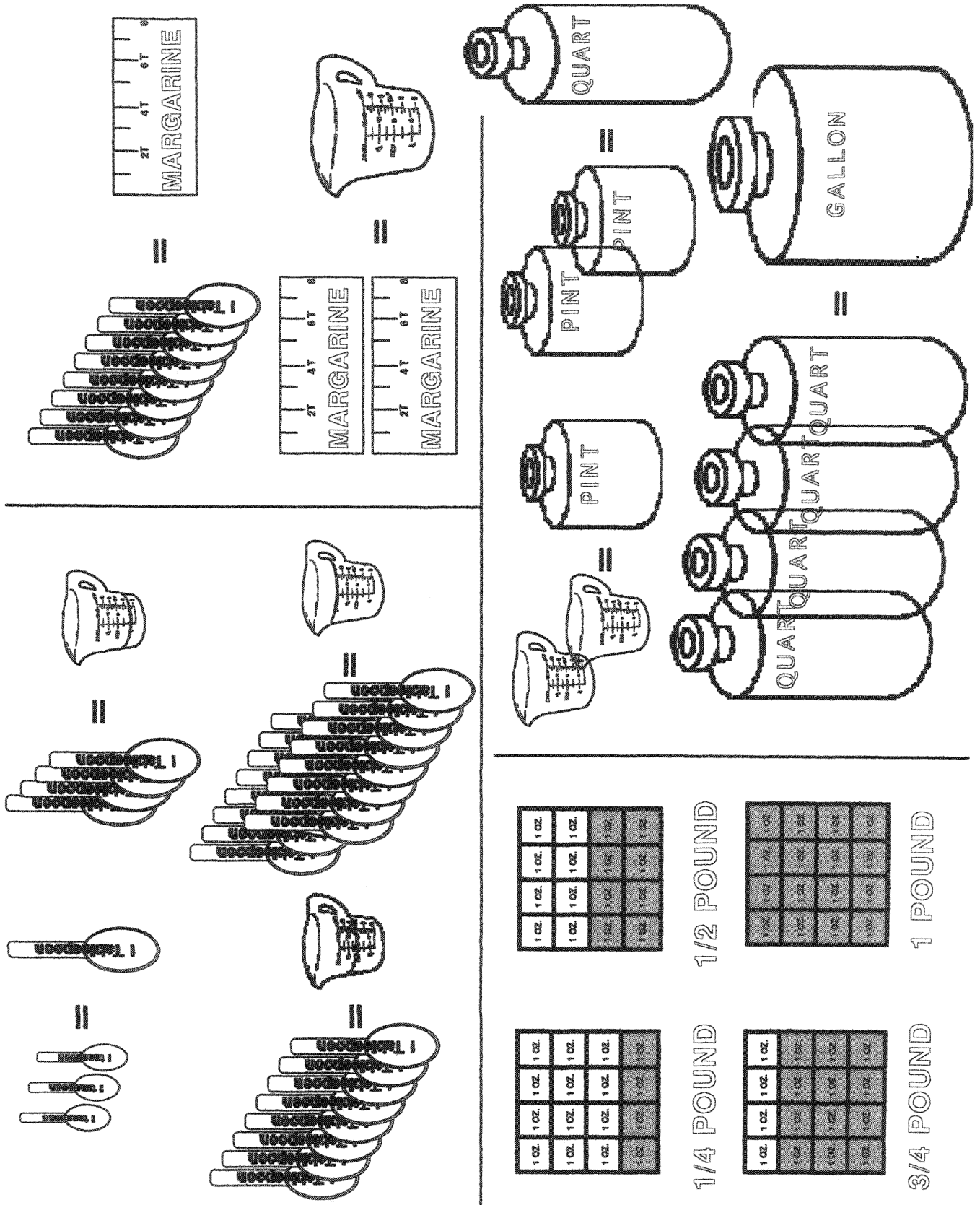




MEASUREMENTS BULLETIN BOARD DIAGRAM

FOOD MEASUREMENTS



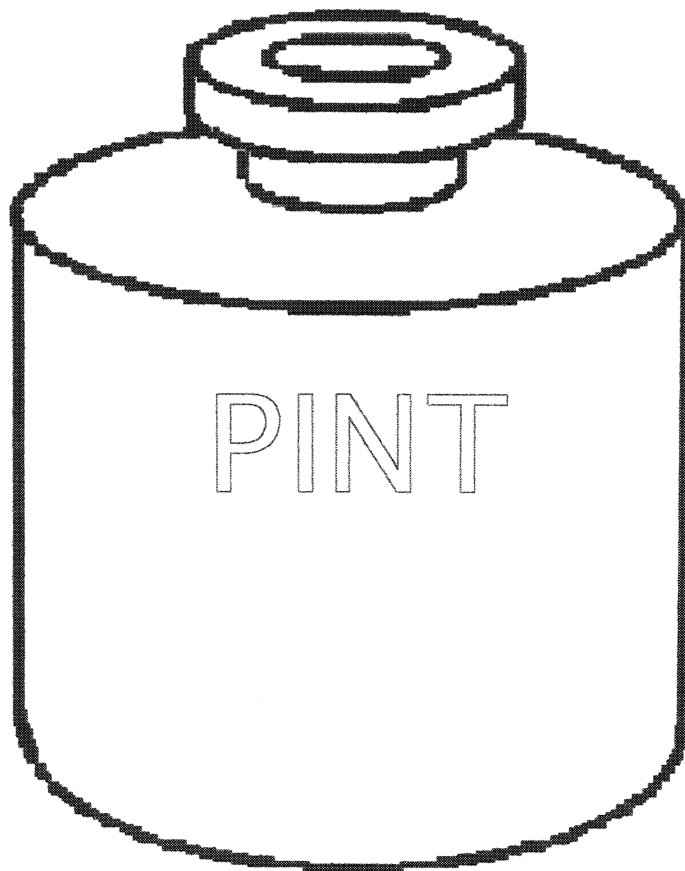
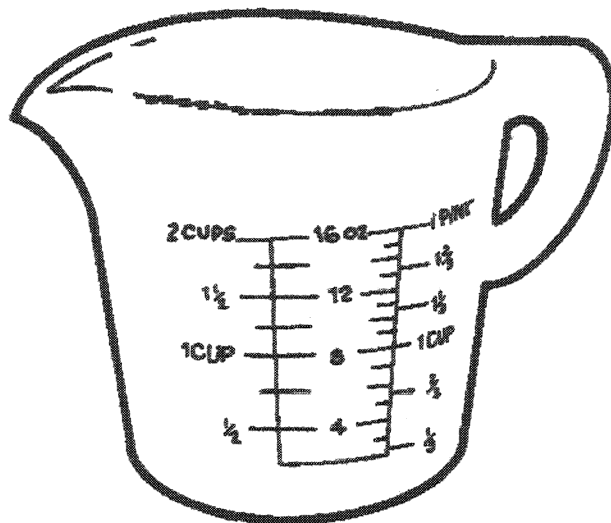
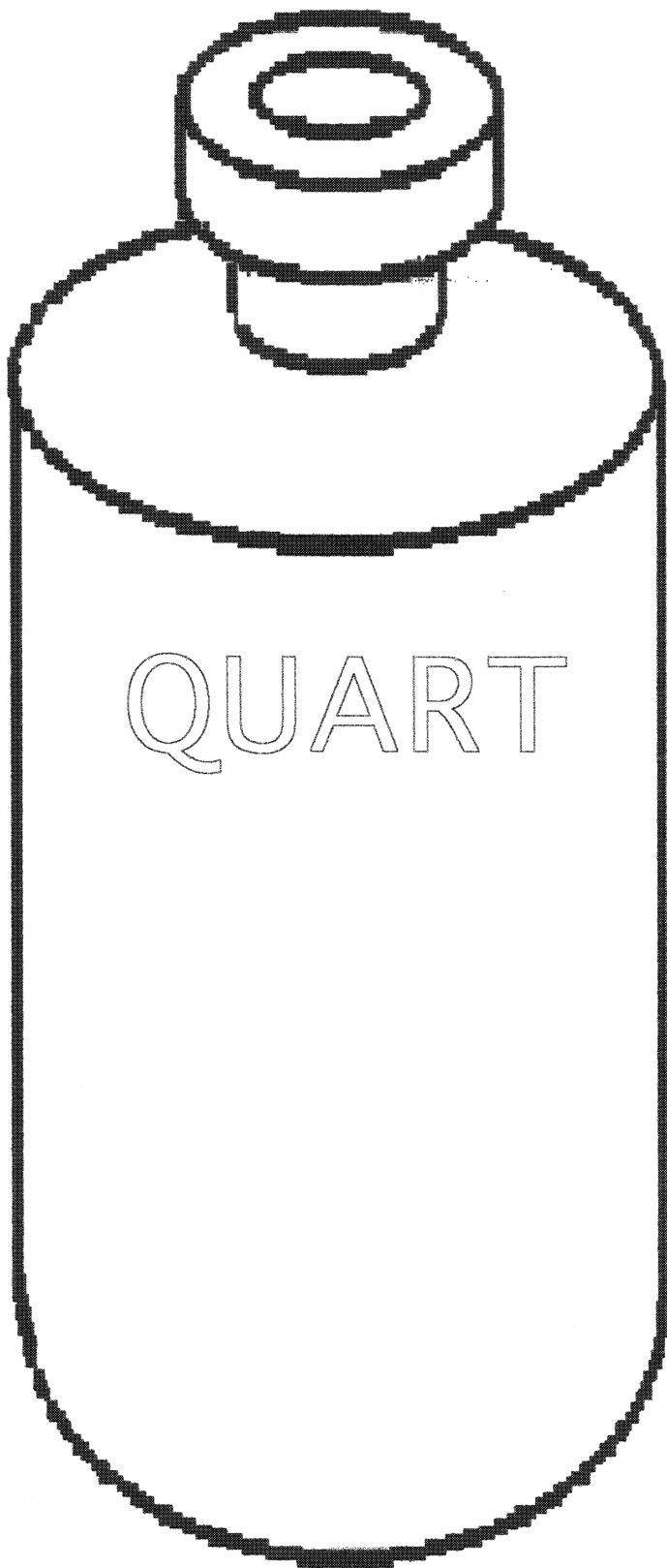


BULLETIN BOARD PIECES - PAGE 1





BULLETIN BOARD PIECES - PAGE 2





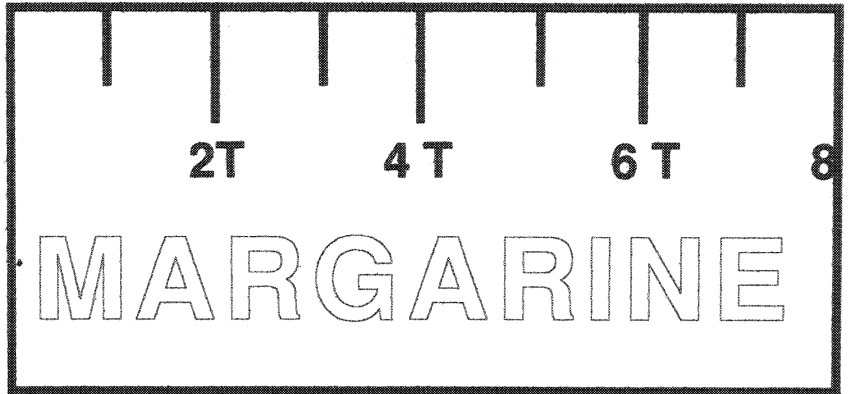
BULLETIN BOARD PIECES - PAGE 3

1 Tablespoon

1 teaspoon

1 teaspoon

1 teaspoon



1 OZ.	1 OZ.	1 OZ.	1 OZ.
1 OZ.	1 OZ.	1 OZ.	1 OZ.
1 OZ.	1 OZ.	1 OZ.	1 OZ.
1 OZ.	1 OZ.	1 OZ.	1 OZ.

1 POUND



HOW TO MEASURE ACCURATELY

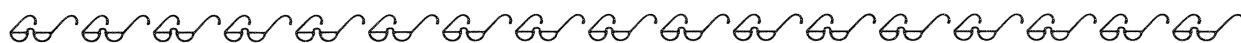
FOR BEST RESULTS:

1. Use standard measuring cups, spoons, and a spatula when measuring ingredients; not spoons or cups used for eating and drinking.
2. Use measuring spoons when measuring less than 1/4 cup.
3. Use dry measuring cups when measuring flour, sugar, cornmeal, or other dry ingredients in order to obtain level measurements.
4. Use a liquid (clear) measuring cup when measuring milk, water, fruit juice, oil, or other liquids.
5. When measuring amounts not marked on the measuring cup, use your knowledge of equivalents to determine in which of the largest measuring units the ingredient may be measured in the quickest possible time. For example: You are dividing a recipe in half and it calls for 1 1/2 c. flour. What is the fastest, most accurate way to figure the amount needed?
 - Step 1: 1 1/2 c. = 24 Tbsp.
 - Step 2: 24 Tbsp. ÷ 2 = 12 Tbsp.
 - Step 3: 12 Tbsp. = 3/4 c.

HOW TO MEASURE DRY INGREDIENTS:

FLOUR:

1. Sift or stir white flour before measuring. Stir whole wheat flour and presift with a fork before measuring. (People who don't have a sifter should stir the flour with a whisk to incorporate air.)
2. Flour may be sifted right into the cup. If more than one cup is needed, spoon the remaining sifted flour gently into the cup until it is heaping, and then level with a metal spatula.
3. Do not shake or tap cup on the table or it will pack.
4. When measuring less than 1/4 c., it is not necessary to sift flour. Instead, fill the measuring spoon to overflowing, then level it with a spatula.



HOW TO MEASURE ACCURATELY - PAGE 2

SUGAR:

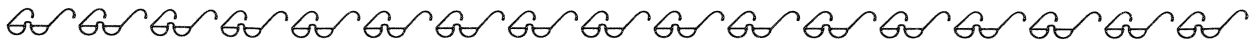
1. Granulated: Put sugar into dry measuring cup. Level with a spatula.
2. Brown: Pack firmly enough into cup so that it remains the shape of the container when turned out. If sugar is lumpy, press it through a course sieve, heat in the microwave for a few minutes, or put the sugar in a plastic bag and roll out the lumps with a rolling pin.
3. Powdered: Sift to remove lumps. Spoon gently or sift into cup and level with a spatula.

COCOA, BAKING POWDER, SODA

1. These items should be stirred before measuring because they have a tendency to pack while sitting on the shelf.

HOW TO MEASURE FAT:

1. Liquid fats (such as oils) are measured as liquids.
2. Solid fats
 - A. To measure by the cold water method:
Subtract the amount of shortening needed from 1 cup;
add remaining amount of cold water to a liquid measuring cup;
then add shortening a little at a time until water rises up to the 1 cup mark on the cup. (Be sure shortening is in the water.)
Pour off water; you will have the correct amount of shortening in the cup.
 - B. To measure in graduated measuring cup or spoon:
Rinse with hot water first for easy release.
Pack it so all the air spaces are pressed out.
Level the top with a spatula, then turn the shortening out into the mixture. It is easy to measure fats if they are at room temperature.
When measuring less than 1/4 c., use a tablespoon measure and hold your finger under the bowl of the spoon to avoid bending and/or breaking the handle.



MEASURING TECHNIQUES DEMONSTRATION
FRUIT FREEZE
 (Similar to *Orange Julius*)

SUPPLIES:

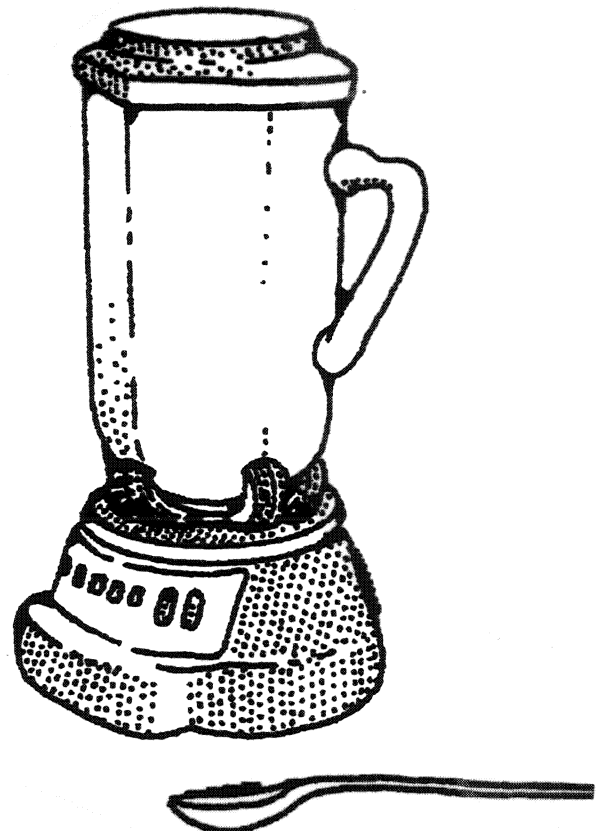
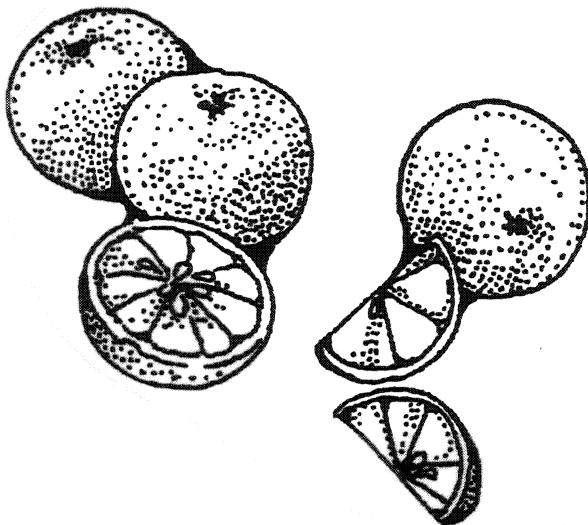
- 1 c. water
- 1/4 c. sugar
- 1/4 c. powdered milk
- 1/4 c. frozen juice concentrate
- 2 c. ice cubes
- paper cups

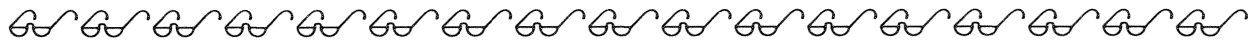
EQUIPMENT:

- Blender
- Rubber spatula
- Large spoon
- Measuring spoons
- Liquid measuring cup
- Dry measuring cups

Put water and sugar in the blender. Add powdered milk, fruit juice, and four of the ice cubes. Mix on medium speed until mixture is well blended. (Some blenders need to be running before the ice cubes are added.) Add the remaining ice cubes and blend mixture until it is very smooth and all of the ice cubes have been chopped up. Pour into cups and serve.

Variations: The teacher could work with the recipe and substitute bananas for the frozen juice concentrate.



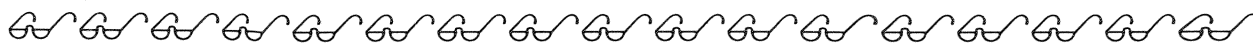


NAME _____ PERIOD _____ DATE _____ SCORE _____

MEASURING TECHNIQUES - TEACHER KEY

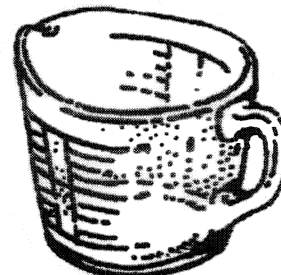
Directions: Answer as many of the following questions as possible during the demonstration on measuring.

1. For the purpose of measuring, ingredients can be divided into two categories:
a. _____ liquid _____ b. _____ dry _____
2. List three dry ingredients:
a. _____ flour _____ b. _____ sugar _____ c. _____ baking powder _____
3. What type of equipment should be used to measure dry ingredients more than 1/4 cup in volume? _____ cups _____
4. What type of equipment should be used to measure dry ingredients less than 1/4 cup in volume? _____ spoons _____
5. A standard set of measuring cups includes: (mark every answer you think is right)
1/8 C. 1/4 C. 1/3 C. 1/2 C. 2/3 C. 3/4 C. 1 C.
6. A standard set of measuring spoons includes: (mark every answer you think is right)
1/8 t. 1/4 t. 1/3 t. 1/2 t. 2/3 t. 3/4 t. 1 t. 1/2 T. 1/3 T. 1 T.
7. Dry ingredients are measured in "graduated" measuring cups. What does the word "graduated" mean? _____ Each cup is gradually larger than the other _____
8. Circle the items needed to measure dry ingredients:
a. metal spatula b. dry measuring cups
c. mixing bowl d. large spoon
9. What dry ingredient should be sifted before you measure it? _____ flour _____
10. Which dry measuring cups would you need to measure 3/4 cup of sugar?
a. _____ 1/2 C. _____ b. _____ 1/4 C. _____
11. List four foods which should be measured in a dry measuring cup and pressed gently to level off:
a. _____ raisins, dates, figs _____ c. _____ shelled nuts, chocolate chips _____
b. _____ shredded coconut _____ d. _____ bread crumbs _____



MEASURING TECHNIQUES - PAGE 2 - TEACHER KEY

12. What ingredient should be firmly packed into the cup when measuring?
 _____ brown sugar _____
13. List the steps for measuring presifted flour and the equipment needed:
- | Step: | Equipment: |
|--|--|
| a. <u>Stir flour in container with spoon to loosen</u> _____ | <u>large spoon</u> _____
<u>flour container</u> _____ |
| b. <u>Lightly spoon flour in measuring cup</u> _____ | <u>dry measuring cup</u> _____ |
| c. <u>Level off the top with a spatula</u> _____ | <u>spatula</u> _____ |
| d. <u>Empty flour into mixing bowl</u> _____ | <u>mixing bowl</u> _____ |
14. List the steps for measuring a dry ingredient, like sugar, and the equipment used:
- | Step: | Equipment: |
|--|--|
| a. <u>Spoon sugar into measuring cup</u> _____ | <u>dry measuring cup</u> _____
<u>large spoon</u> _____ |
| b. <u>Hold over waxed paper</u> _____ | <u>waxed paper</u> _____ |
| c. <u>Level off with spatula</u> _____ | <u>spatula</u> _____ |
| d. <u>Pour into mixing bowl</u> _____ | <u>mixing bowl</u> _____ |
15. Circle the features that a good liquid measuring cup should have:
- is able to hold hot liquid
 - has extra space at the top of the cup
 - has a pour spout and a handle
 - has marking that are easy to read



16. List three liquid ingredients:
 a. water _____ b. milk _____ c. vanilla _____
17. Describe how to measure liquids:
- Use a liquid measuring cup _____
 - Measure the liquid at eye level _____
 - Set the measuring cup on a level surface _____



MEASURING TECHNIQUES - PAGE 3 - TEACHER KEY

18. List the four items you need to measure 1/2 teaspoon vanilla:
- a. 1/2 t. measure c. paper towel/sink
 b. vanilla d. mixing bowl

Why do you measure over a paper towel or the sink instead of directly over your mixing bowl? So if it spills it won't get too much into the bowl

How do you loosen the lid on a vanilla bottle when it won't turn easily?

Put it under hot running water

19. To make solid shortening easier to remove from the measuring utensil, what should you rinse the container with first? hot water

20. List the steps for measuring shortening and the equipment required:

Steps:

Equipment:

- | | |
|--|-------------------------|
| a. <u>Pack cup tightly with spatula or spoon</u> | <u>spoon or spatula</u> |
| | <u>measuring cup</u> |
| b. <u>Level off with spatula</u> | <u>spatula</u> |
| c. <u>Remove shortening from cup</u> | <u>rubber spatula</u> |
| d. <u>Put into mixing bowl</u> | <u>mixing bowl</u> |

21. One stick or cube of butter or margarine equals 1/2 cup.

22. There are 16 tablespoons in a cup.

23. There are also 8 ounces in a cup.

24. There are 16 ounces in a pound (lb.).

25. There are 32 ounces in a quart.

26. There are 4 cups in a quart.

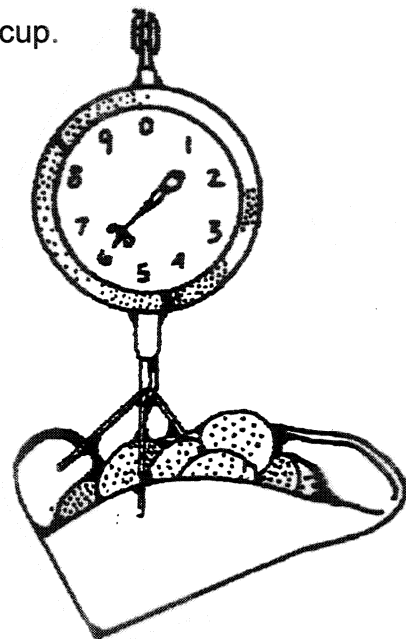
27. There are 4 quarts in a gallon.

28. There are 16 cups in a gallon.

29. There are 3 teaspoons in a tablespoon.

30. There are 2 cups in a pint.

31. There are 2 pints in a quart.



This student activity guide could be included in your "Independent Ideas" Handbook.

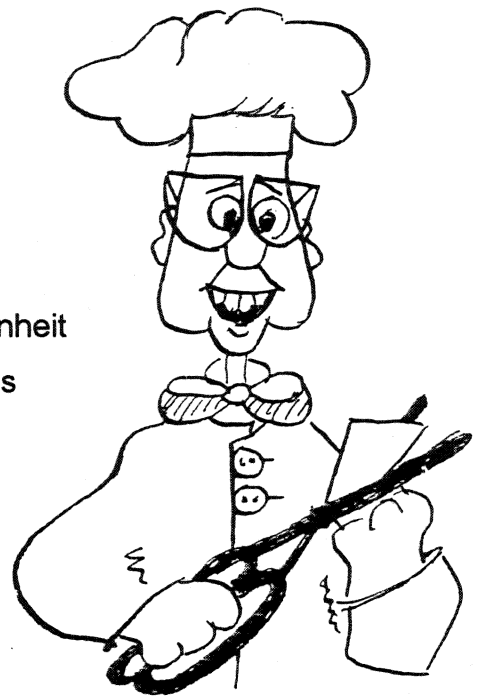


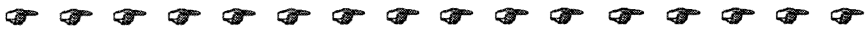
NAME _____ PERIOD _____ DATE _____ SCORE _____

MEASUREMENT ABBREVIATIONS AND EQUIVALENTS - TEACHER KEY

MEASUREMENT ABBREVIATIONS

lb.	<u>T/TSP.</u>	teaspoon
doz.	<u>T/Tbsp.</u>	tablespoon
qt.	<u>c.</u>	cup
oz.	<u>pt.</u>	pint
tsp. or t.	<u>qt.</u>	quart
tbsp. or T.	<u>gal.</u>	gallon
°F.	<u>oz.</u>	ounce
hr.	<u>lb.</u>	pound
c.	<u>°F.</u>	degrees Fahrenheit
gal.	<u>°C</u>	degrees Celsius
°C	<u>sec.</u>	seconds
pt.	<u>min.</u>	minutes
min.	<u>hr.</u>	hours
sec.	<u>doz.</u>	dozen
tr.	<u>tr.</u>	trace



Now go to the next page (or turn this page over) and complete the section on Measurement Equivalents. 



MEASUREMENT ABBREVIATIONS AND EQUIVALENTS - TEACHER KEY

MEASUREMENT EQUIVALENTS

Go to the measurement table with various kinds of measuring equipment, water and margarine. Beginning with the smallest piece of equipment and using the water, see how many of the measurement equivalents you can determine. Remember, the term "equivalent" means "equal to."

1. How many teaspoons are in a tablespoon? 3
2. How many tablespoons are in a 1/4 cup? 4
3. How many tablespoons are in a 1/2 cup? 8
4. How many tablespoons are in a cup? 16
5. How many 1/4 cups are in a cup? 4
6. How many 1/3 cups are in a cup? 3
7. How many 1/2 cups are in a cup? 2
8. How many 1/4 cups are in 3/4 cup? 3
9. How many 1/3 cups are in 2/3 cup? 2
10. How many cups are in a pint? 2
11. How many pints are in a quart? 2
12. How many cups are in a quart? 4
13. How many quarts are in a gallon? 4
14. How many pints are in a gallon? 8
15. How many cups are in a gallon? 16
13. How many seconds are in a minute? 60
17. How many minutes are in an hour? 60
18. How many minutes are in a 1/2 hour? 30
19. How many ounces are in a pound? 16
20. How many items are in a dozen? 12
21. How many tablespoons are in a stick of margarine? 8
22. One stick of margarine is equal to 1/2 cup.



This student activity guide could be included in the "Independent Ideas" Handbook.



MAD MEASURER GAME - PAGE 1

<p>8 ounces</p>	<p>4 quarts</p>
<p>4 cups</p>	<p>2 pints</p>

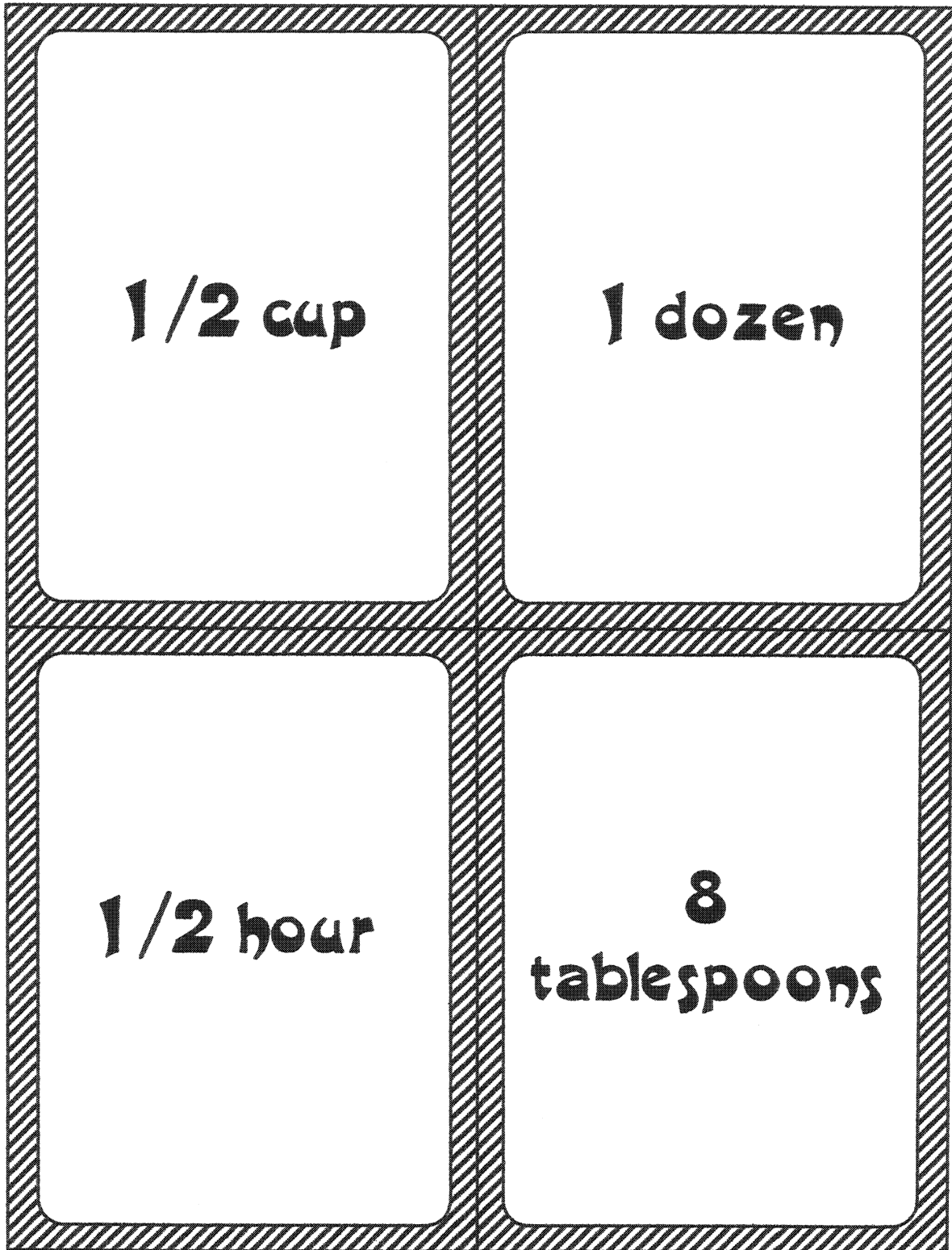


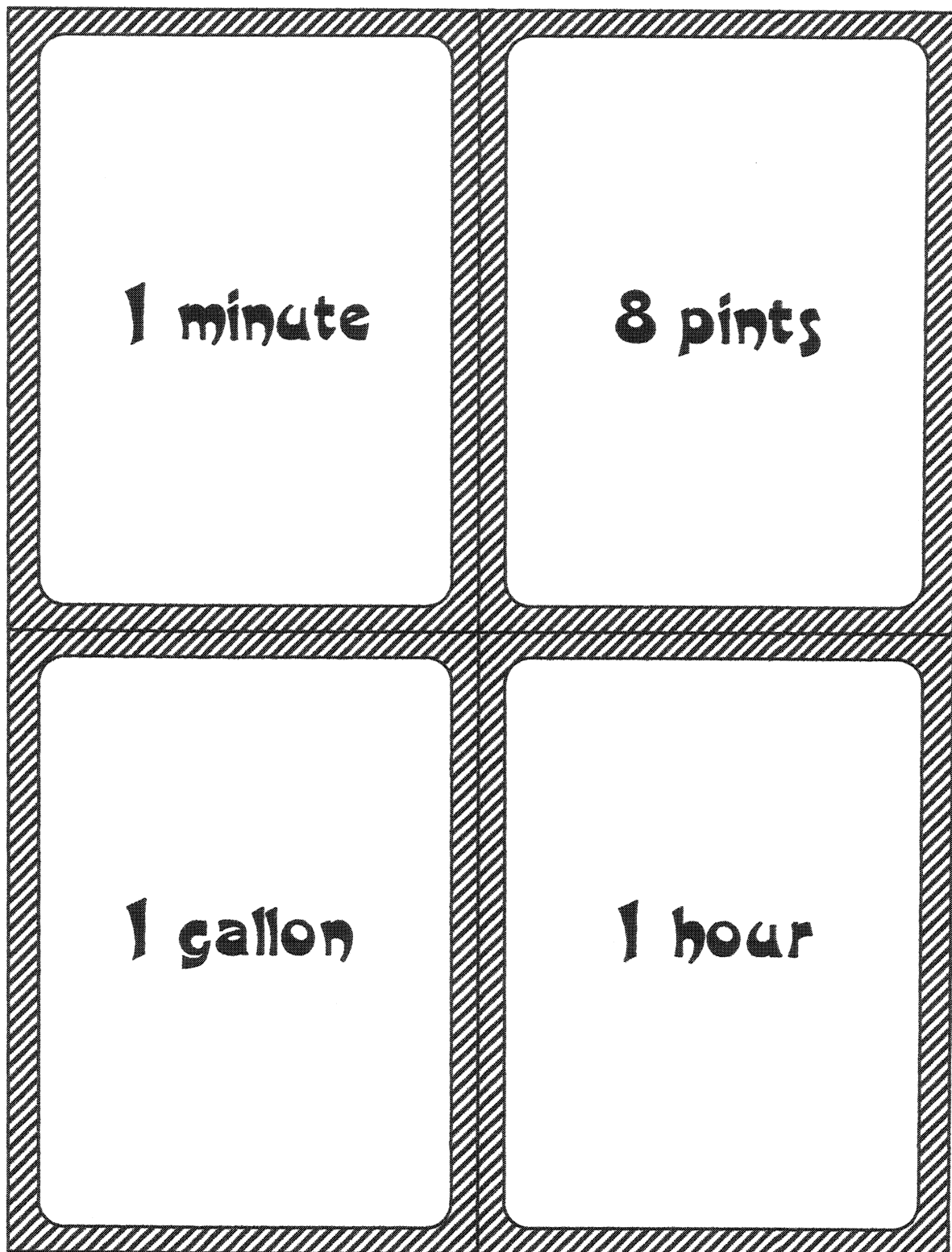
MAD MEASURER GAME - PAGE 2





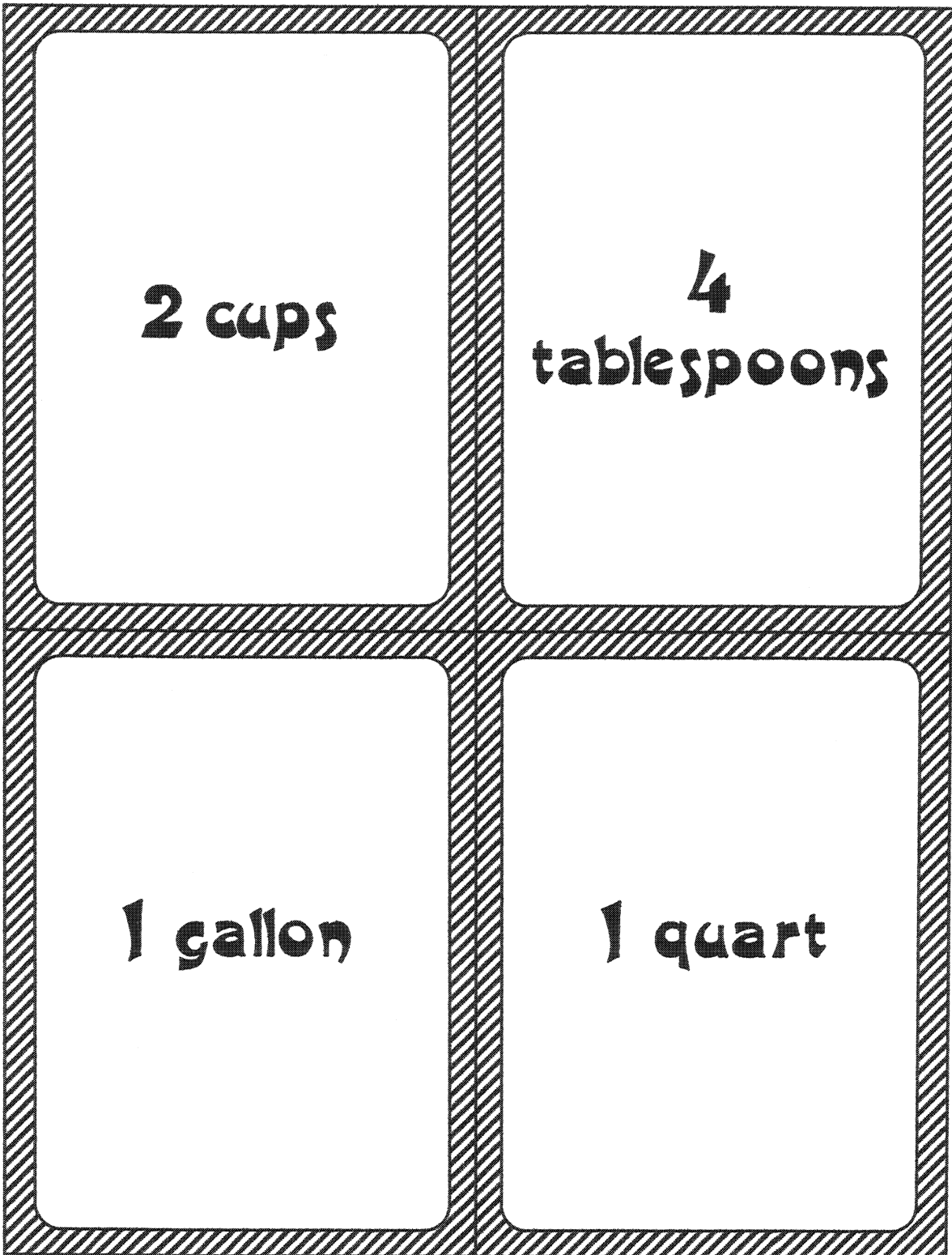
MAD MEASURER GAME - PAGE 3



**MAD MEASURER GAME - PAGE 4**

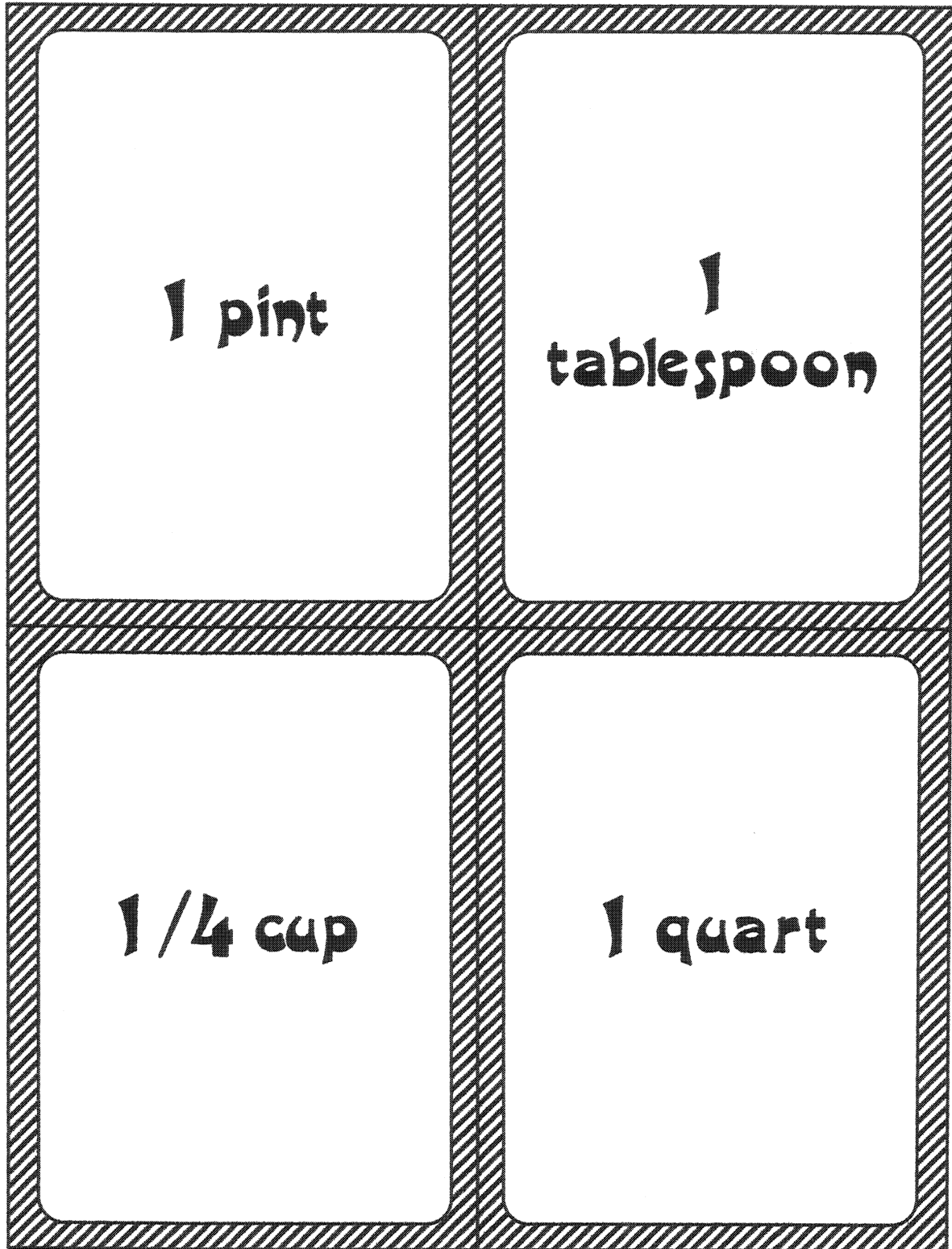


MAD MEASURER GAME - PAGE 5



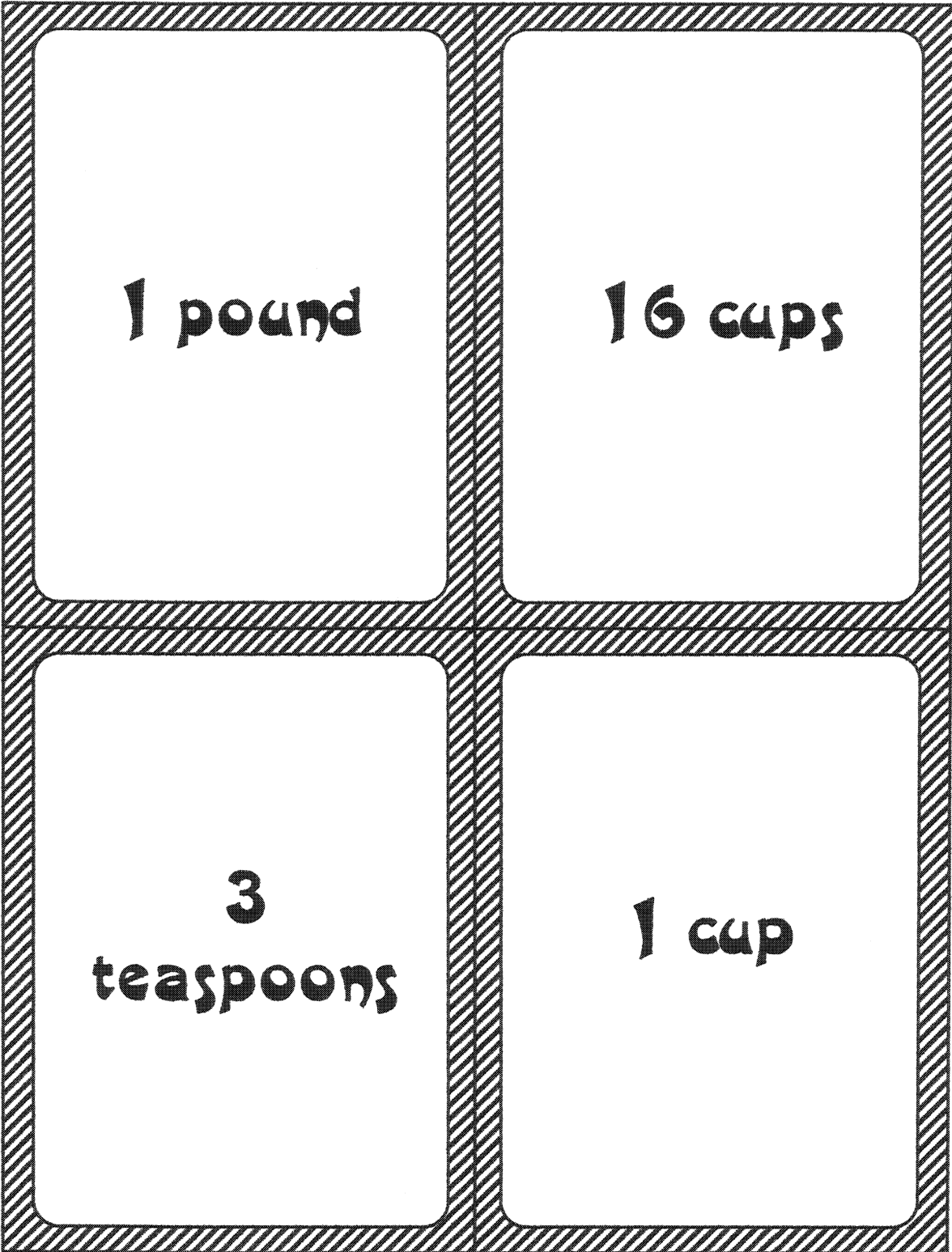


MAD MEASURER GAME - PAGE 6





MAD MEASURER GAME - PAGE 7





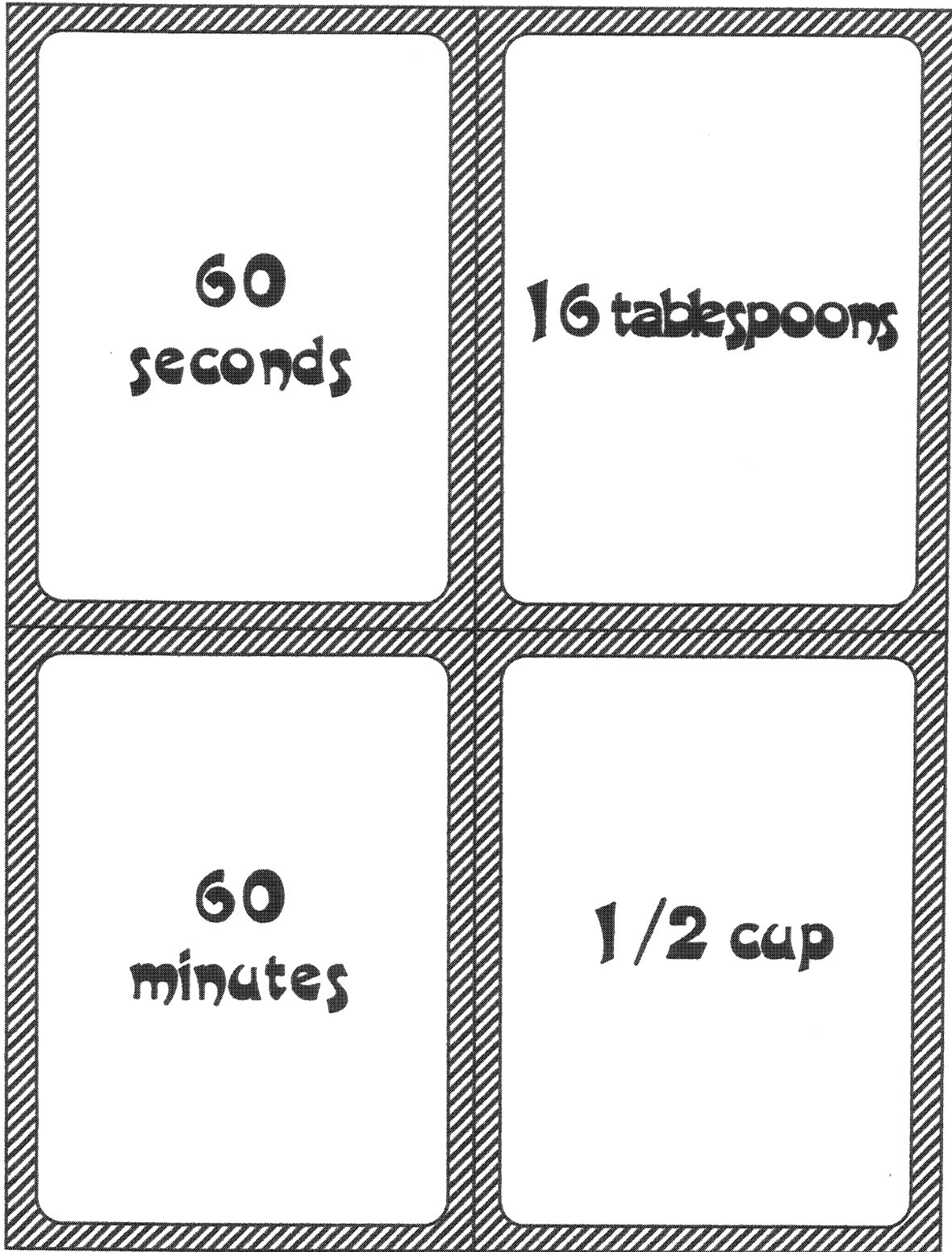
MAD MEASURER GAME - PAGE 8

A large rectangular frame with a hatched border, divided into four quadrants by a vertical and a horizontal line. Each quadrant contains a white rounded square card with measurement text.

<p>30 minutes</p>	<p>16 ounces</p>
<p>12 items</p>	<p>1 gallon</p>



MAD MEASURER GAME - PAGE 9



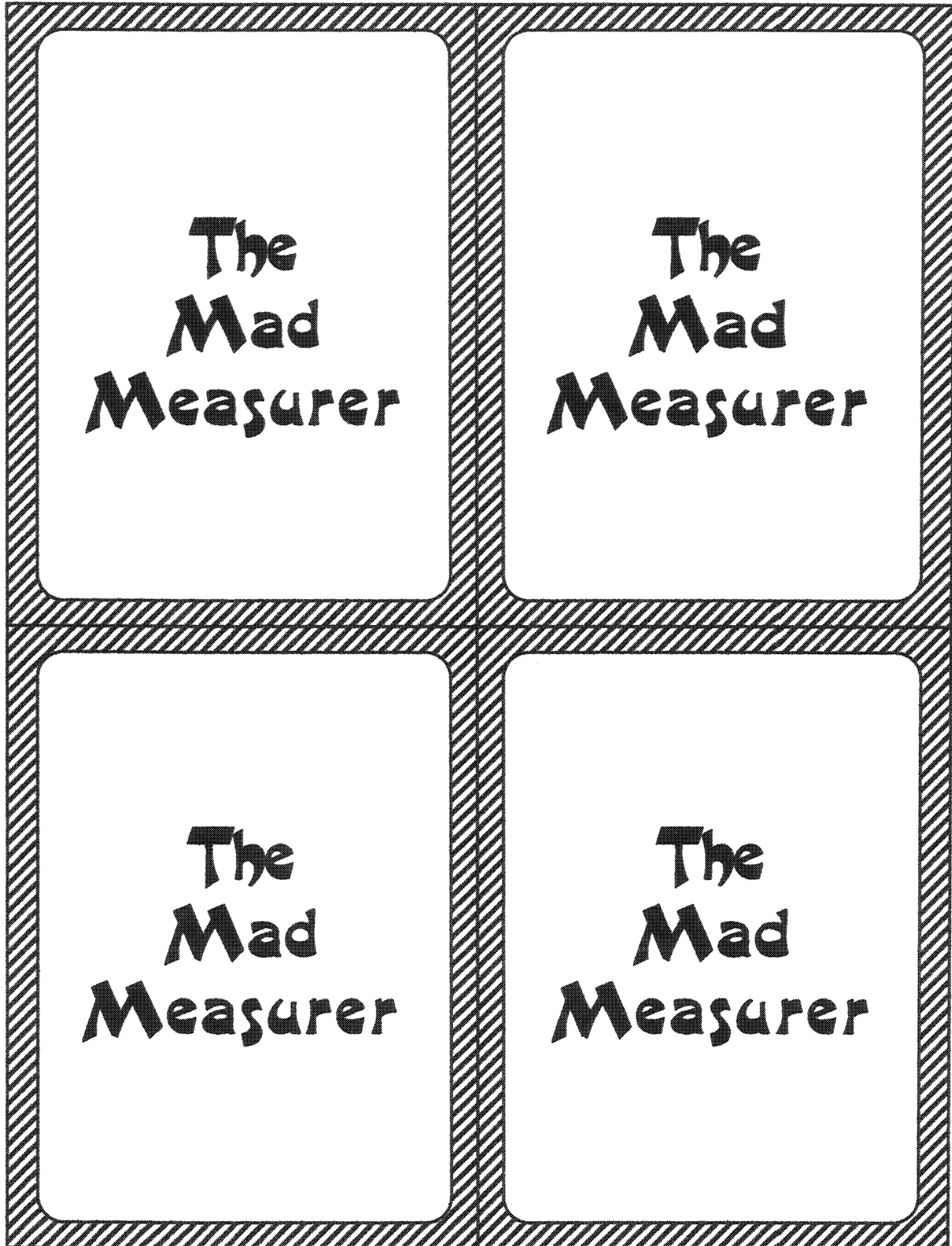


MAD MEASURER GAME - PAGE 10

<p>12 tablespoons</p>	<p>3/4 cup</p>
 <p>A cartoon illustration of a chef with wild hair, wearing a tall white hat, sunglasses, a white lab coat with 'MAD' written on it, and checkered pants. He is pouring liquid from a measuring cup into a glass, with some liquid spilling out.</p>	

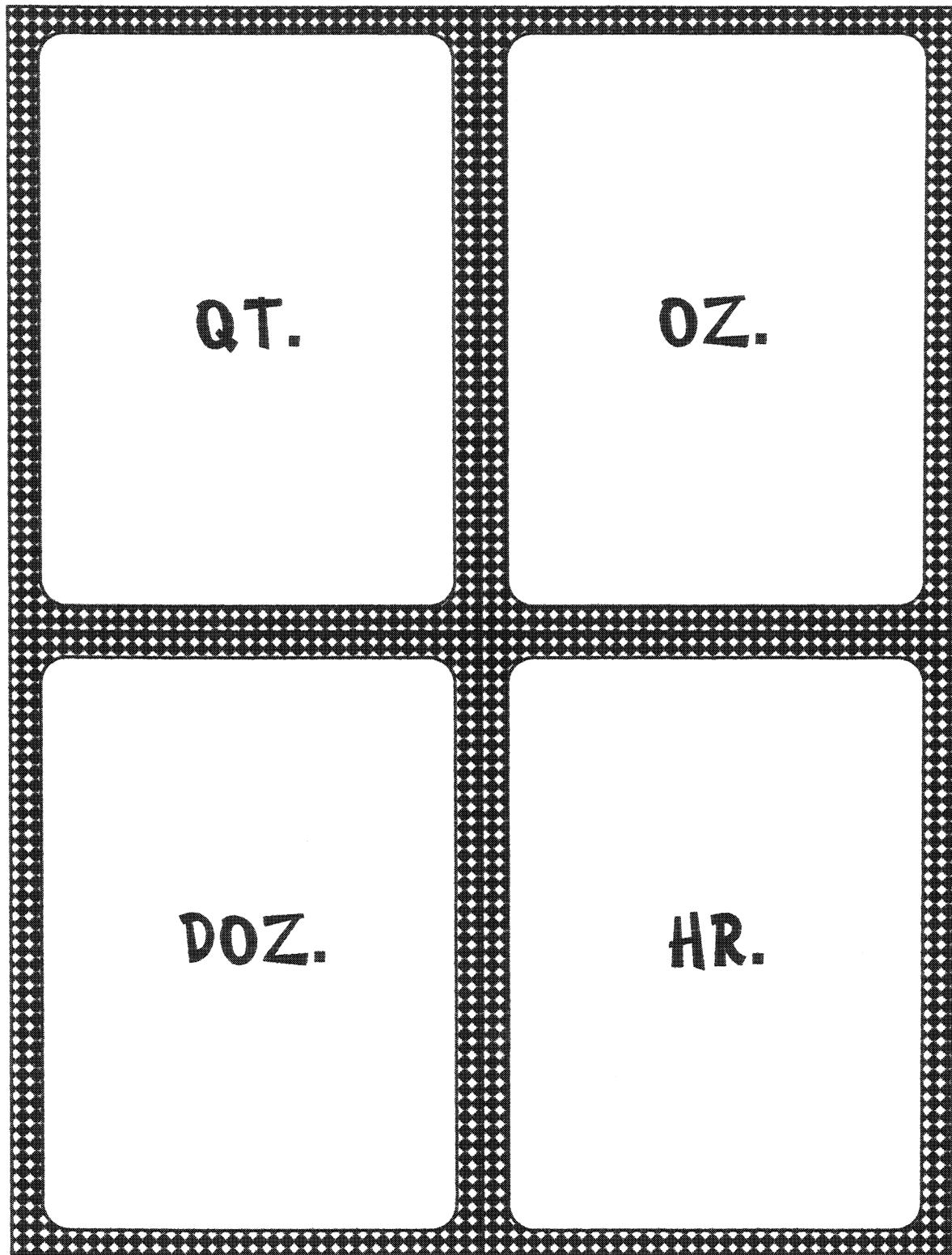


MAD MEASURER GAME - PAGE 11



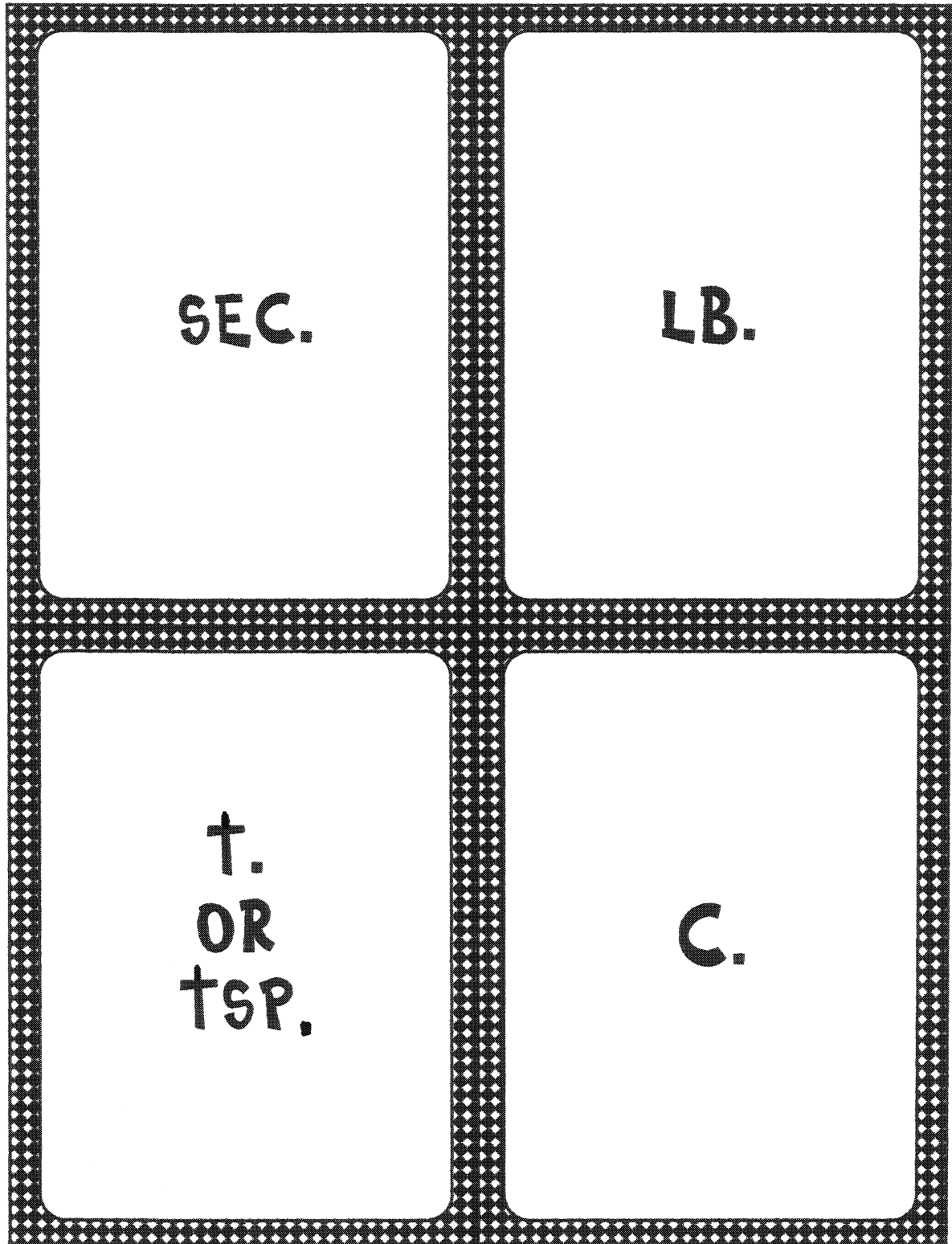


ABSENT-MINDED ABBREVIATOR GAME - PAGE 1



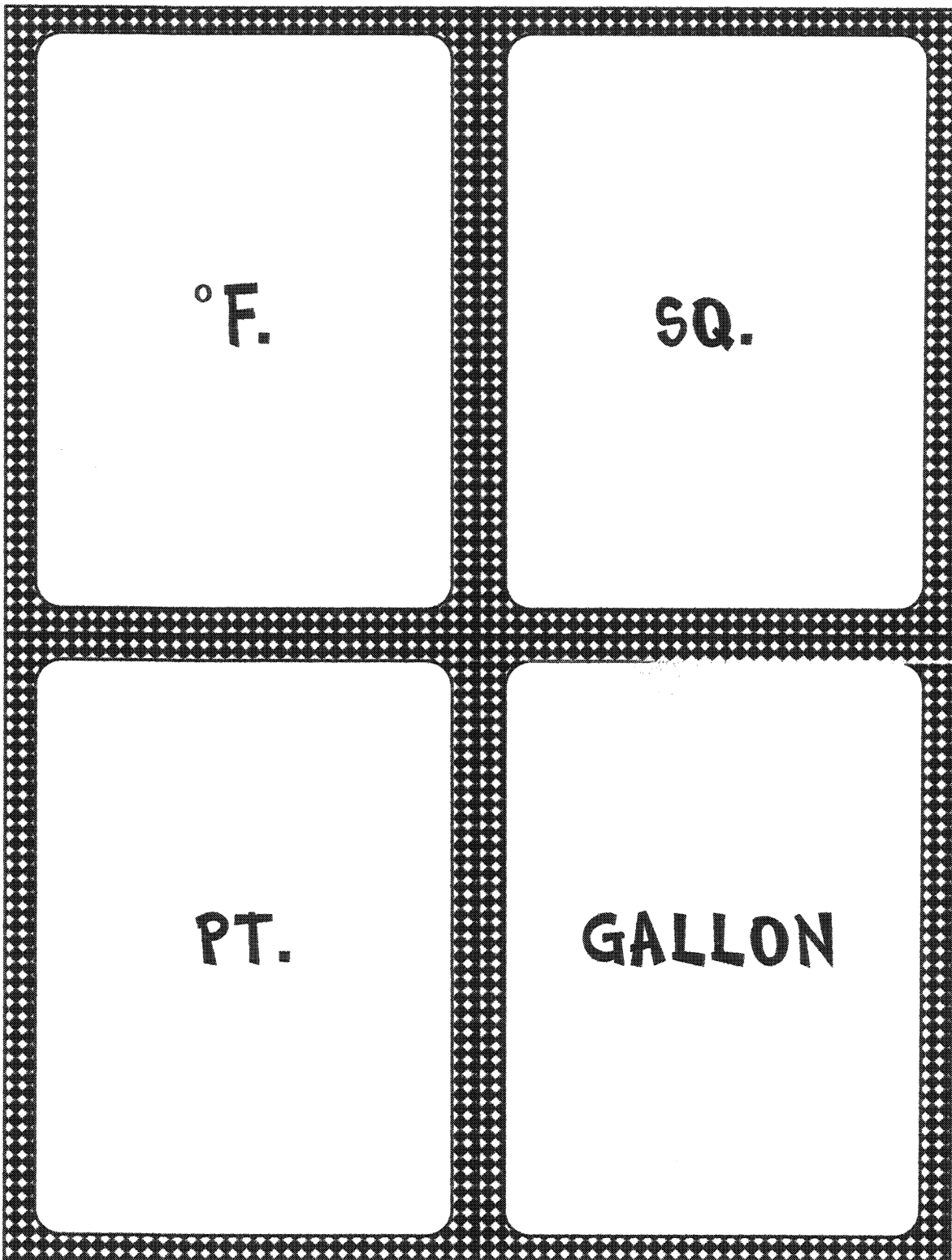


ABSENT-MINDED ABBREVIATOR GAME - PAGE 2



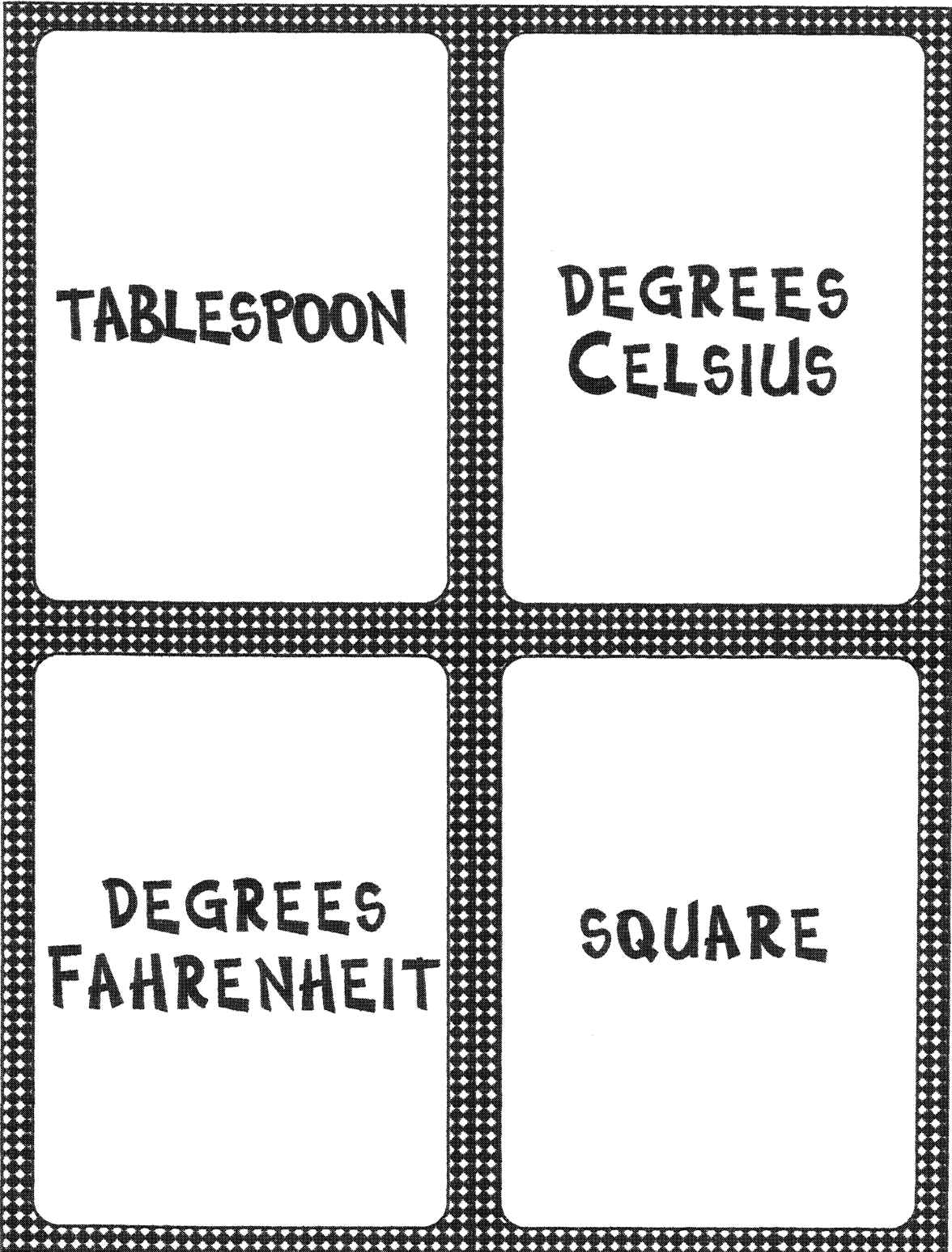


ABSENT-MINDED ABBREVIATOR GAME - PAGE 3



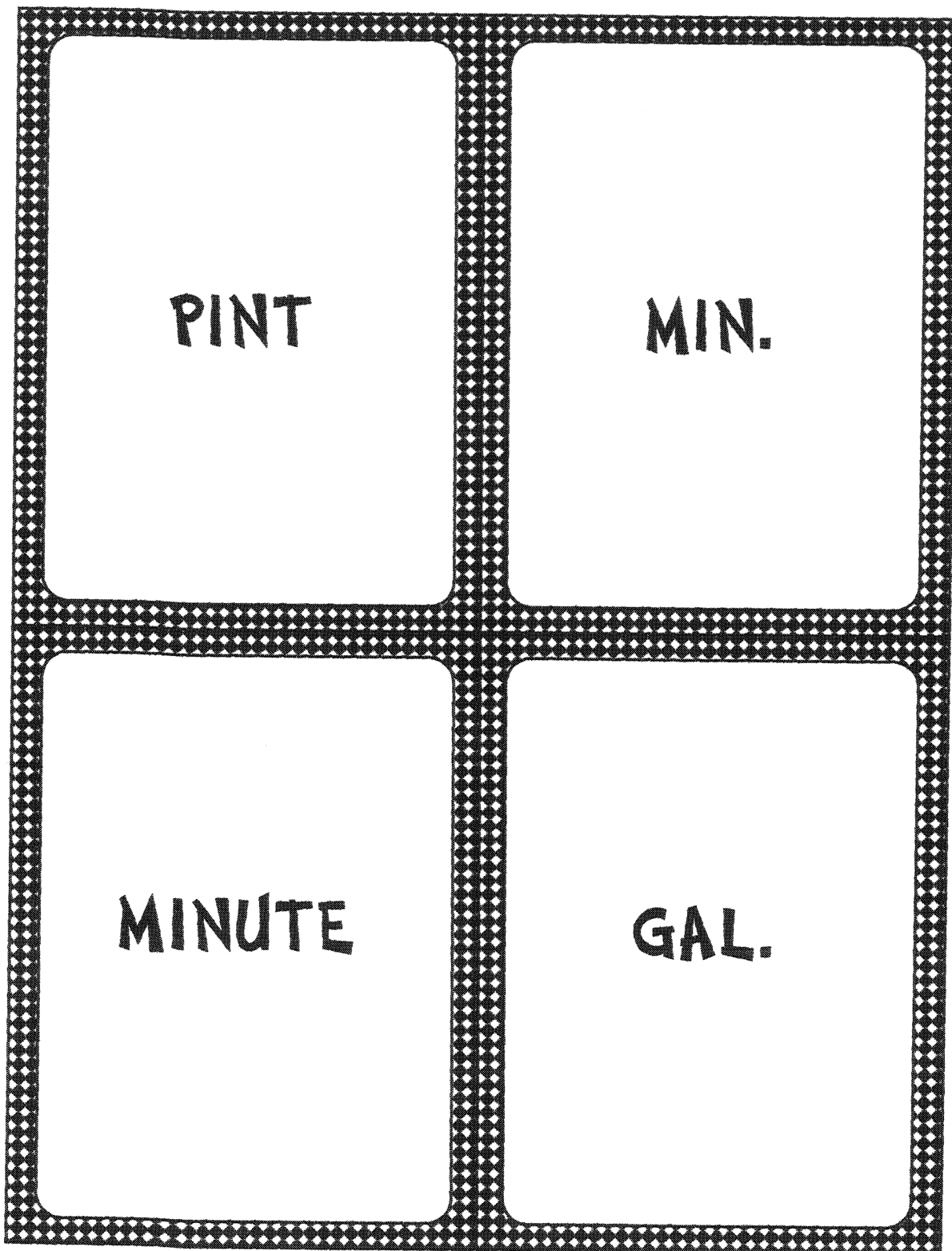


ABSENT-MINDED ABBREVIATOR GAME - PAGE 4



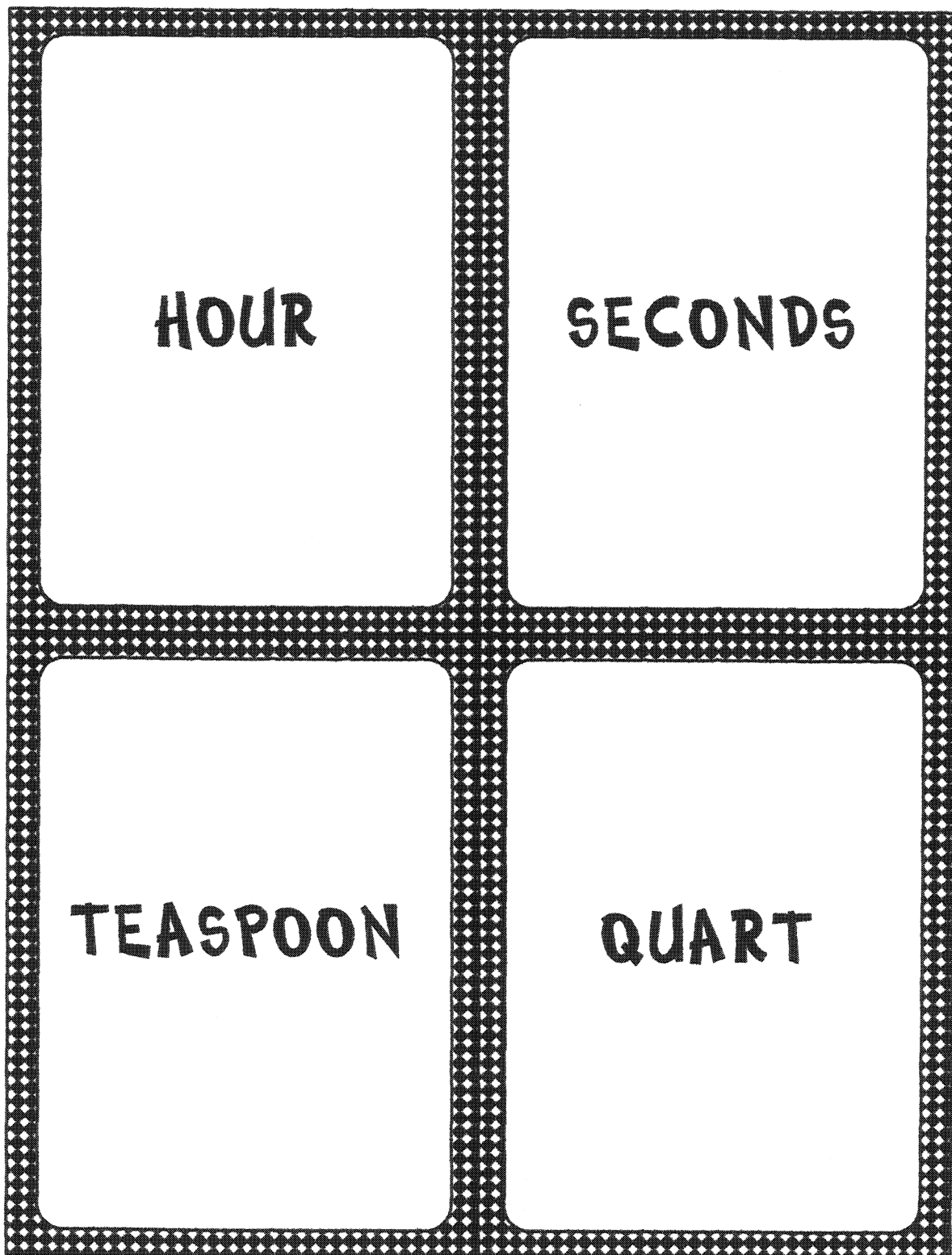


ABSENT-MINDED ABBREVIATOR GAME - PAGE 5



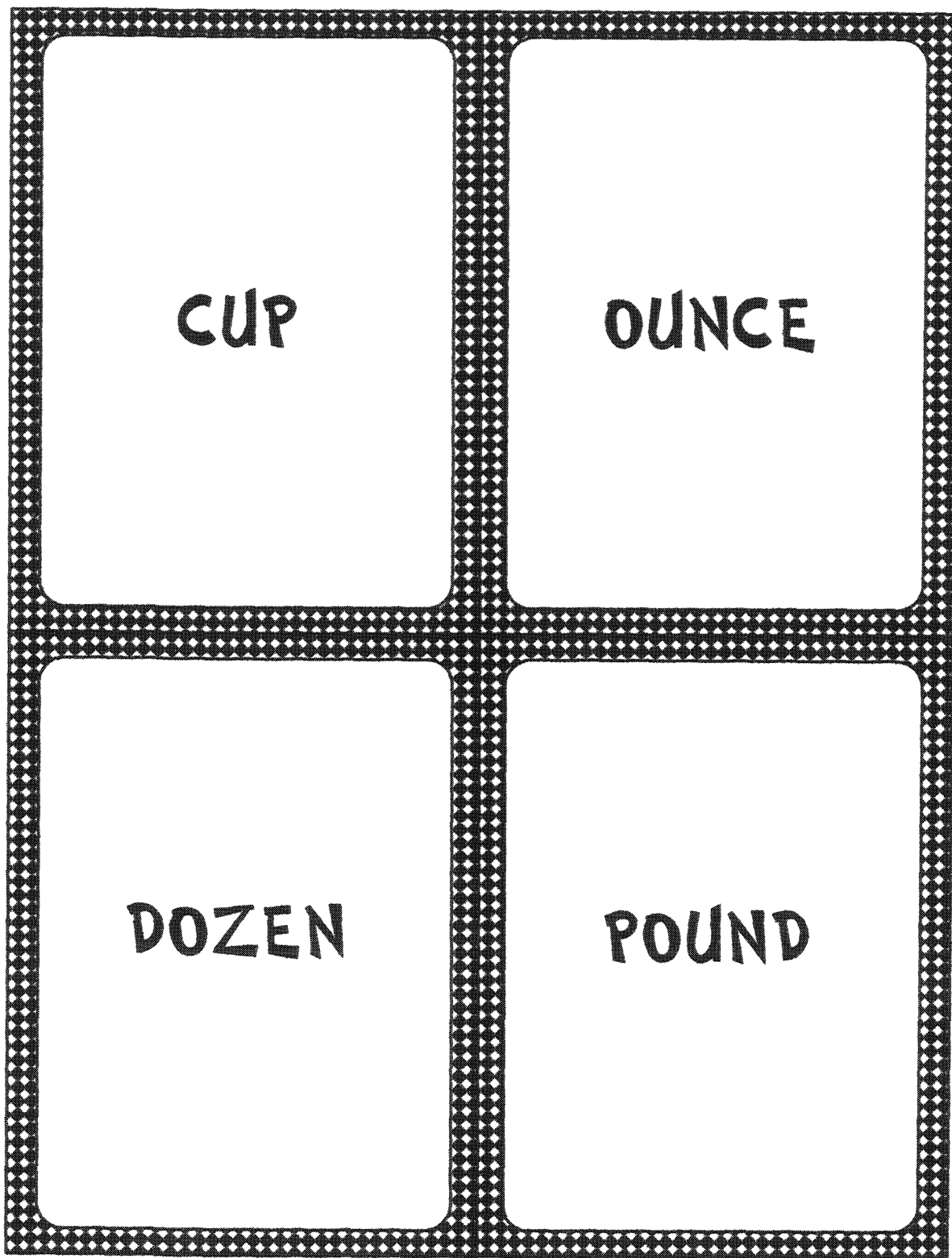


ABSENT-MINDED ABBREVIATOR GAME - PAGE 6



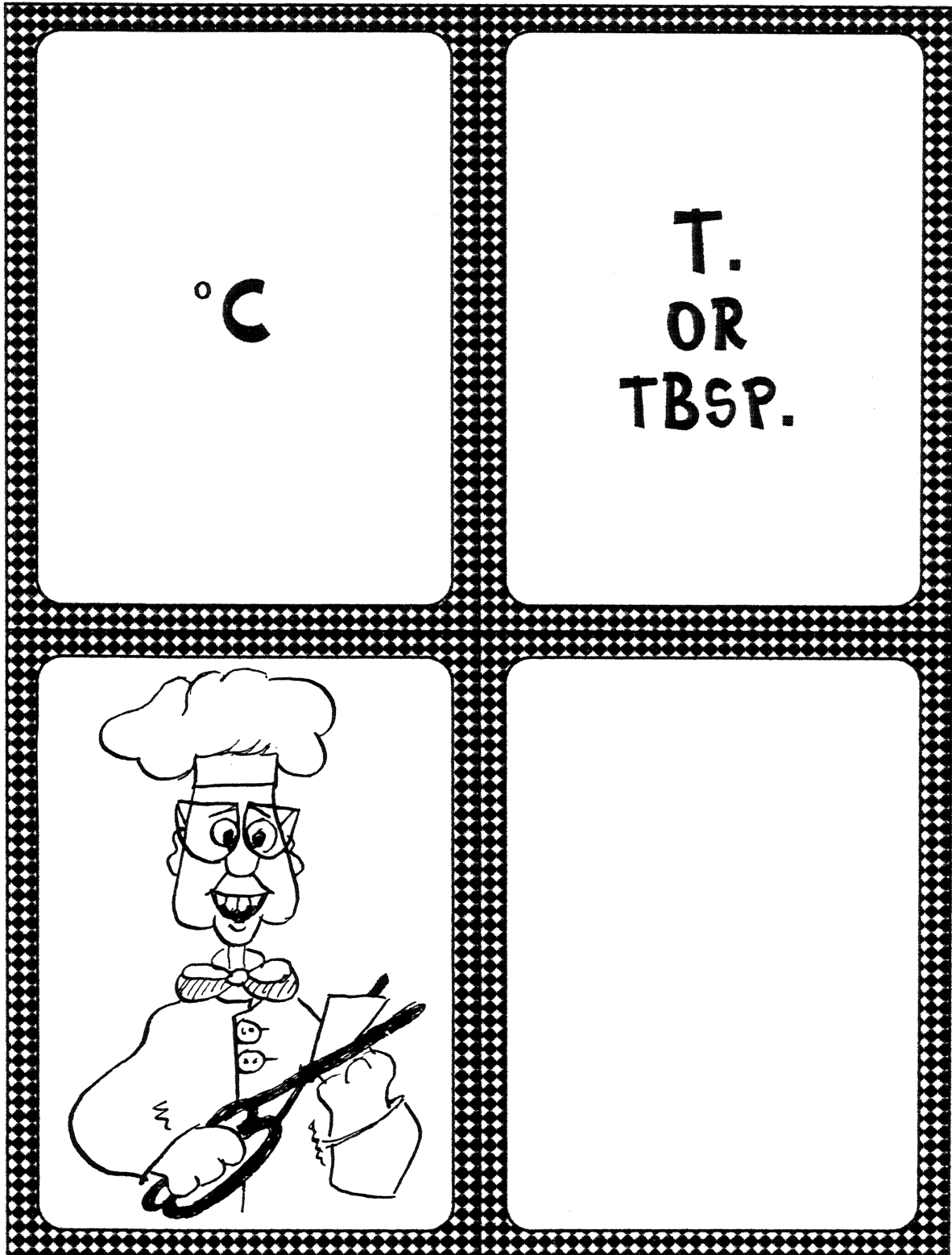


ABSENT-MINDED ABBREVIATOR GAME - PAGE 7



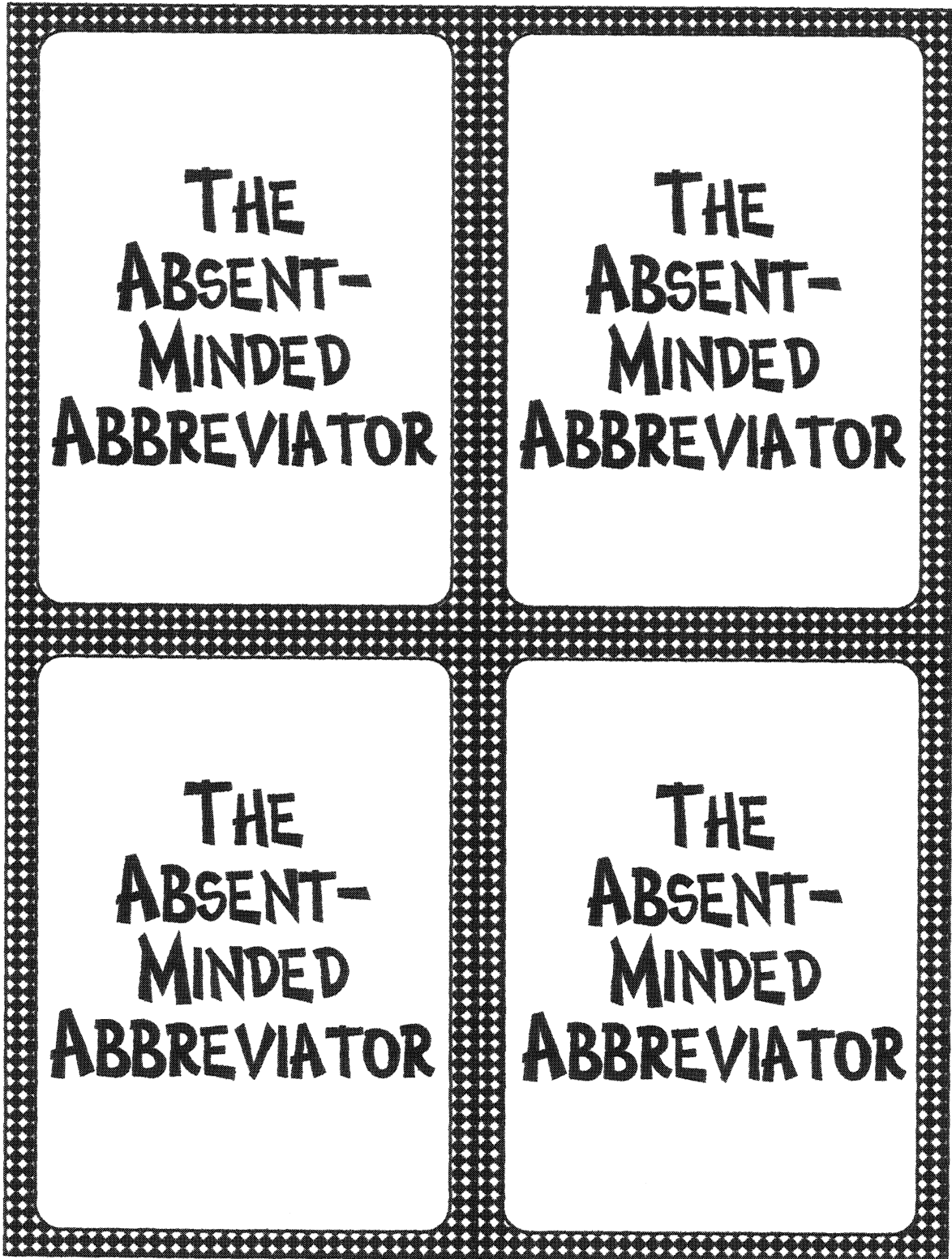


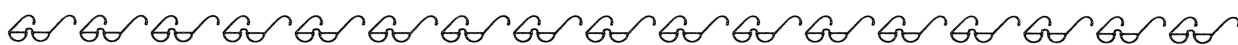
ABSENT-MINDED ABBREVIATOR GAME - PAGE 8





ABSENT-MINDED ABBREVIATOR GAME - PAGE 9





CAREER INFORMATION

COOK AND/OR CHEF: Cooks and chefs measure, mix, and cook ingredients according to recipes. They are largely responsible for the reputation a restaurant acquires because they are responsible for preparing meals that are tasty and presented attractively. Jobs are plentiful for chefs, cooks, and other kitchen workers.

Chefs are the most highly skilled, trained, and experienced food workers and also have more responsibilities. Many kitchen workers begin as fast-food or short-order cooks and begin acquiring skills and/or training that allows them to advance to higher levels. A person can usually begin working at a minimum wage in the fast-food industry without a high school diploma. Chefs usually have completed two to four years of college plus served in an apprenticeship program by professional culinary institutes.

DIETITIAN: Dietitians, sometimes called nutritionists, are professionals trained in applying the principles of nutrition to food selection and meal preparation. They counsel individuals and groups, supervise food service systems for institutions, and promote sound eating habits.

A bachelor's degree with a major in foods and nutrition and an internship of 6 to 12 months are required to be a dietitian. Employment opportunities of dietitians is expected to grow faster than average through the year 2000.

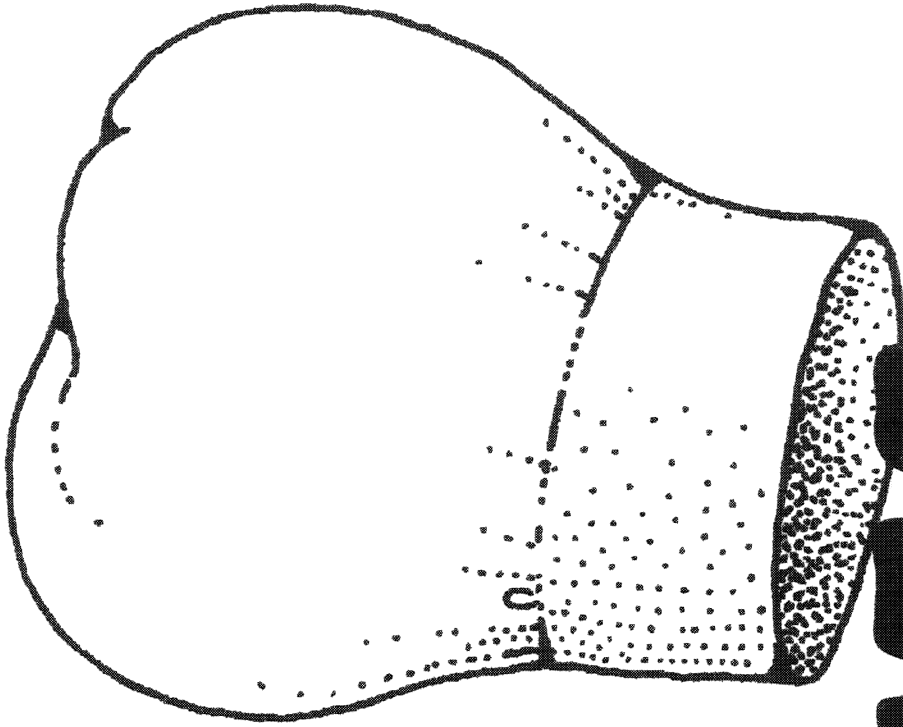
FOOD INSPECTOR: Health (Food) inspectors (compliance officers) work with engineers, chemists, microbiologists, and health workers to insure compliance with public health and safety regulations governing food, drugs, cosmetics, and other consumer products. Most inspectors specialize in one area and become an expert in that field. Food inspectors inspect meat and poultry processing, food and beverage processing and handling, and a number of other related conditions. People who enter this occupation should like detailed work and be able to express themselves well in writing and verbally.

Health (food) inspectors must have a bachelor's degree and must pass an examination for the Food and Drug Administration. Related experiences can also help to qualify a person for the job.



CAREER INFORMATION - PAGE 2

- BAKER OR PASTRY CHEF:** Bakers or pastry chefs produce baked goods for restaurants, institutions, and/or retail bakery shops, and only supply the customers who visit their establishment.
- Their wages are basically the same as a cook and/or chef with training, experience, and responsibilities determining their wages.
- FOOD TECHNOLOGIST:** A food technologist studies the chemical, physical, and biological nature of food to learn how to safely process, preserve, package, distribute, and store it. Some develop new products and others insure quality standards. They generally work regular hours in offices, laboratories, and research stations.
- A bachelor's degree is the minimum required to work in this field, and a master's degree is usually necessary to do research or teach in this field.
- FOOD SCIENTIST:** A food scientist is a person who studies the chemical, physical, and biological nature of food to learn how to safely process, preserve, package, distribute, and store it. Some food scientists develop new food products and others insure quality standards. They generally work regular hours in offices and/or laboratories. They perform many scientific experiments on various types of foods, and they do a lot of research work, which often includes quite a bit of writing. They do not work with the public very often.
- Many food scientists work for the government in different departments. Many companies that produce food products also hire food scientists. All food scientists must have a bachelor's degree, and a master's degree is required in most jobs. Some jobs also require a doctoral degree. Job security is usually very good and salaries increase with the number of years experience, the level of responsibilities, and the amount of education.



COOK

OR CHEF



**BAKER
OR
PASTRY CHEF**

A large, stylized illustration of a chef's hat, also known as a toque. The hat is white with a black outline and features a band around its base. The band is filled with a stippled or dotted pattern. The hat is positioned at the top of the page, with the text 'BAKER OR PASTRY CHEF' written in large, bold, black, sans-serif capital letters across its front.

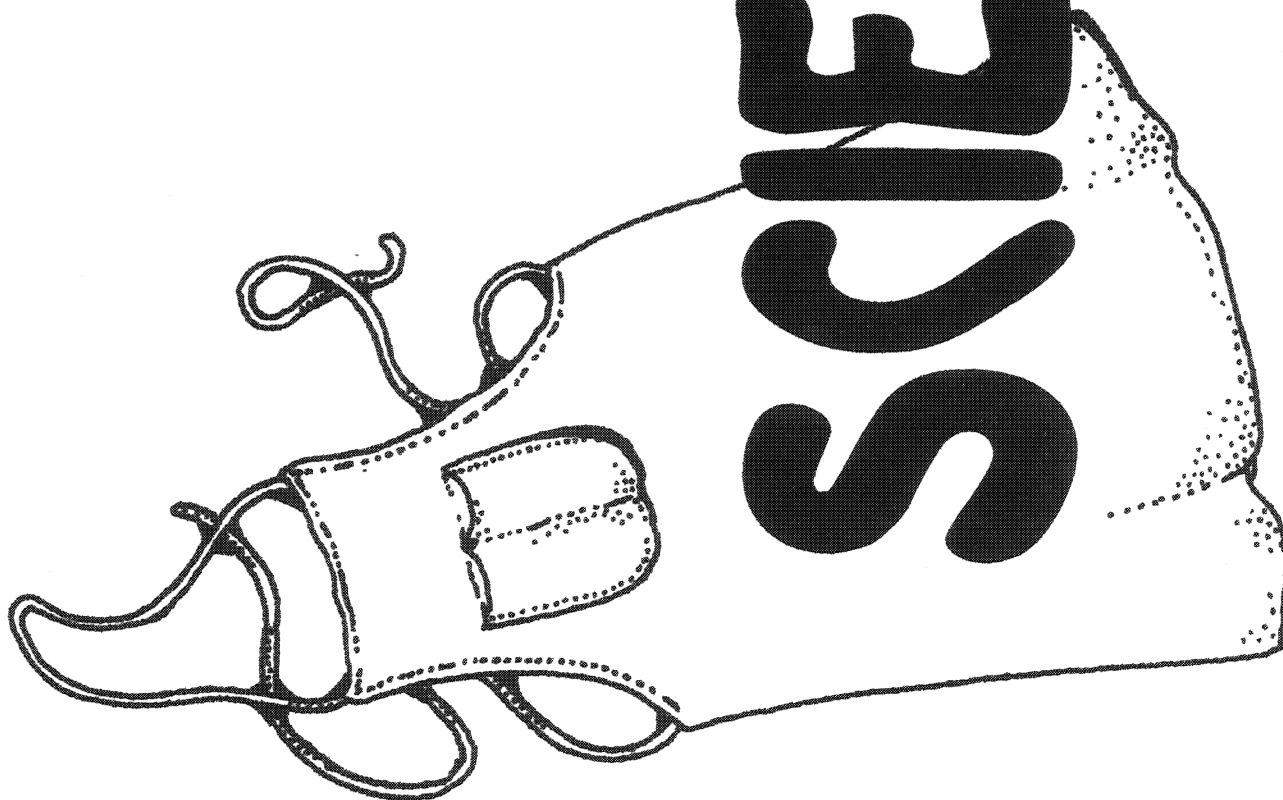


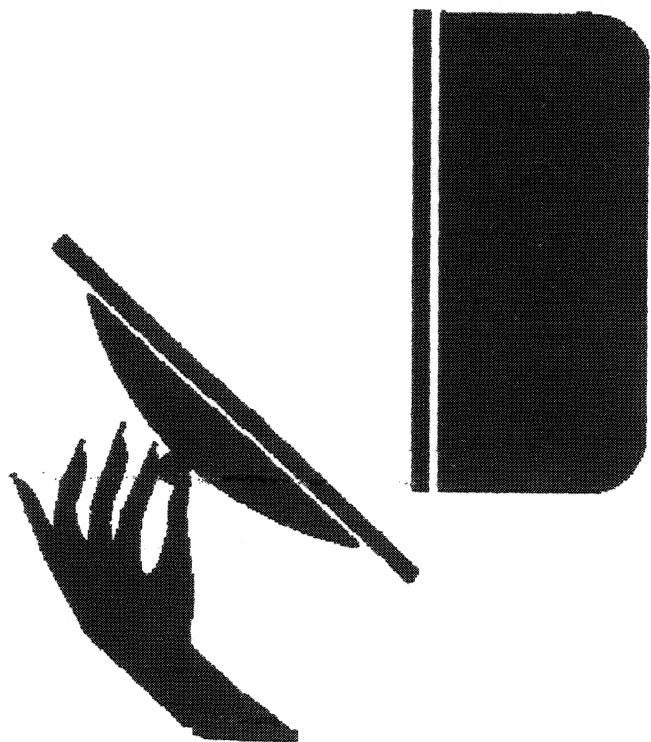
DIETITIAN



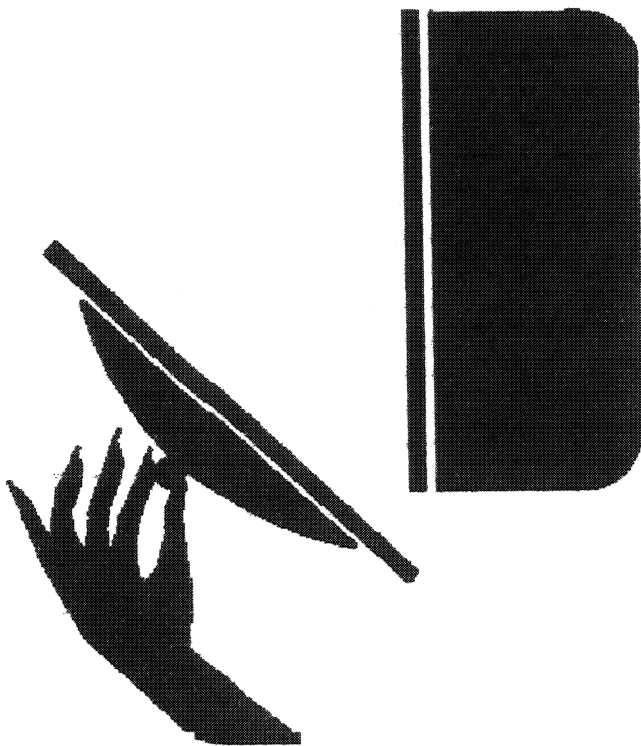


FOOD MEASUREMENTS





FOOD FACTS



FOOD

TECHNOLOGIST