

Mathematical Scrapbook – A Math Problem Solving Project

6th - 7th Grade Summer 2013

Math is everywhere, even in the summer! It's your turn to find a math moment, capture it on a scrapbook page, and write a math problem about it.

There are three pages attached that give you instructions for your Mathematical Scrapbook. First is a list of math topics and types of media you will use to illustrate and explain your topic. Second is an example with a topic of fractions illustrated with a recipe from a magazine. Third is a template that gives the details of what must be included on your scrapbook page.

Your scrapbook pages can be done digitally or in print. You can even choose a few of each type. For digital pages, your media will be inserted digitally onto your page, and your problem, solution and explanation must be typed onto your page. For print pages, please use a standard size sheet of paper. Your media will be attached directly onto your paper, and your problem, solution and explanation can be either neatly written or typed. Papers should be **stapled** together. You may choose to create a cover sheet, but no actual scrapbooks, photo albums or any other type of binding (other than staples) are allowed.

Whichever type of page you create, refer to the template to make sure you include the required elements. Notice how the example follows the template and includes all requirements. Use the following checklist for each individual scrapbook page to make sure your page is complete and follows directions.

Mathematical Scrapbook

For each topic below, create a math problem and worked-out solution. Each math topic must be illustrated with a different type of media. This means that each topic and each media type must be used once.

Math topics

1. Fractions
2. Percents
3. Area and Perimeter
4. Calculate statistics from a data set (mean, median, mode, range)

Media

1. Newspaper
2. Magazine
3. Travel related item (map, ticket, brochure)
4. Your own digital picture of hands-on activity (shopping, home project, gardening, cooking, etc.)

Summer Strawberry Crumble Math

Topic: Fractions
Media: Magazine

Original Ingredients

2 pints fresh strawberries
1/3 cup granulated sugar
1 tablespoon cornstarch
1 teaspoon vanilla extract
1/2 cup all-purpose flour
1/2 cup old-fashioned oatmeal
6 tablespoons light brown sugar
4 tablespoons butter, melted

Half Ingredients

1 pint
1/6 cup
1/2 tablespoon
1/2 teaspoon
1/4 cup
1/4 cup
3 tablespoons
2 tablespoons



My yummy strawberry crumble recipe serves 4. There are only two of us, and we don't want any leftovers. How much of each ingredient should I use when I make this delicious dessert?

To solve this problem, I need to multiply each ingredient by half. Multiplying by $\frac{1}{2}$ is the same as dividing by 2, so I can figure it out either way!

TEMPLATE FOR SCRAPBOOK PAGE

Title of page

Topic: _____

Media: _____

Main part of page. Arrange neatly and legibly.

Make your page visually appealing and interesting.

Include these required elements:

Describe problem

Insert or attach media

Solve problem; explain solution clearly