

**Age Level:**

Third grade and up

**Subjects:**

Art  
Language Arts  
Math

**Time:**

45 to 60 minutes

**Materials:**

- One 12 x 18-inch and two 8 1/2 x 11-inch sheets of varied colored paper for each student
- Scissors, stapler, tape, glue
- Felt markers, crayons
- (Optional) Copy of the Vocabulary Review and Reflection for each student

**Learning Objectives:**

- To gain an understanding of the design process
- To develop a solution to a problem using pre-determined criteria

**Design Professional:**

This is a good activity for the architect to present if time allows. If not, discuss the presentation of this activity with the teacher so it can be presented in the best way to indicate the design process. At the beginning of your next session with the students, have them tell you about their process and solution.

**Teacher:**

Since each of the activities in the program will build on the previous one and will lead to the final culmination, it is important that the students keep all their work together. Designing a folder provides an excellent opportunity for them to experience the design process. With some previous discussion with the architect, you should be able to conduct this activity quite easily.

**Rationale:**

Students are accustomed to producing a response to assignments with only one correct answer.

Seldom are they required to take time to plan ahead and to consider alternative solutions to a problem. Producing creative and varied solutions within limits that meet specified criteria is a new and valuable experience.

**Presenting the activity:**

Typical dialogue might be...

*“Since you will be doing a number of activities that will help you learn more about your community, such as sketching, designing, planning a project, etc., it will help you keep your materials together if you have a folder to put them in. Of course, you could just fold a piece of paper and put the things in it. However, making this folder is a special project to help you understand what is meant by designing something.*

*“When architects or other artists are asked to design something, they have to find out several things before they can start. They need to know what it will be used for, what materials will be needed, how long it needs to last, what size it should be and what the design theme is. All of these things are called the design criteria. When they know what the criteria are, they try to think of the most creative solution they possibly can to the design problem. Going through this design process gives us much more exciting things to look at and work with than just doing the same things that have been done before.*

*“Designers don’t just start out on the finished paper, either. They think about it, make sketches of ideas and often a small model to be sure how it is going to look. That way, when they start on the real materials, they will know just what they are going to do and won’t spoil it. By planning ahead this way, the result is usually much more interesting and attractive.*

*“How about trying this out on your folder? Here are some criteria for the design of your folder.” (List on a chart for later reference)*

**Criteria:**

"The folder is to hold 8 1/2 x 11 inch handouts, your drawings, a ruler, pencil and scissors in some manner so they won't fall out.

"It must be strong enough to last for several weeks."

**Design theme:**

"The cover design must picture something about architecture in your school or your community, buildings, parks, play grounds, works of art, etc.

"The picture must fill the whole piece of paper. When you draw your picture, be sure that you look at your whole folder and design the picture to fill the whole space – no little pictures down in one corner.

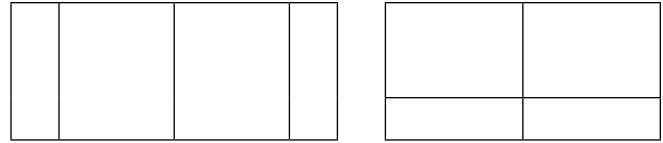
"However, you will want to have the folder designed and put together before you do the drawing. Sketch some ideas on scratch paper first. When you come to a design that you like, sketch it out on your folder very lightly in pencil so you will be able to make changes. Be sure it looks the way you want it to before you draw with your crayons or felt pens."

**Materials:**

"Select a nice combination of colors for your three sheets of paper. You may cut the paper, fold it, make cutouts, then staple, tape or glue the pieces you have cut out in different places. However, you are to use only these three pieces of paper. If you make a mistake, you will have to figure out a way to work it out. You will not have any more paper."

**Limits:**

"It is very important to remember – the only thing you can't do is fold it like a PEECHEE (teachers and architects may need to explain what this is to students) or similar purchased folder. That has been done too many times before.

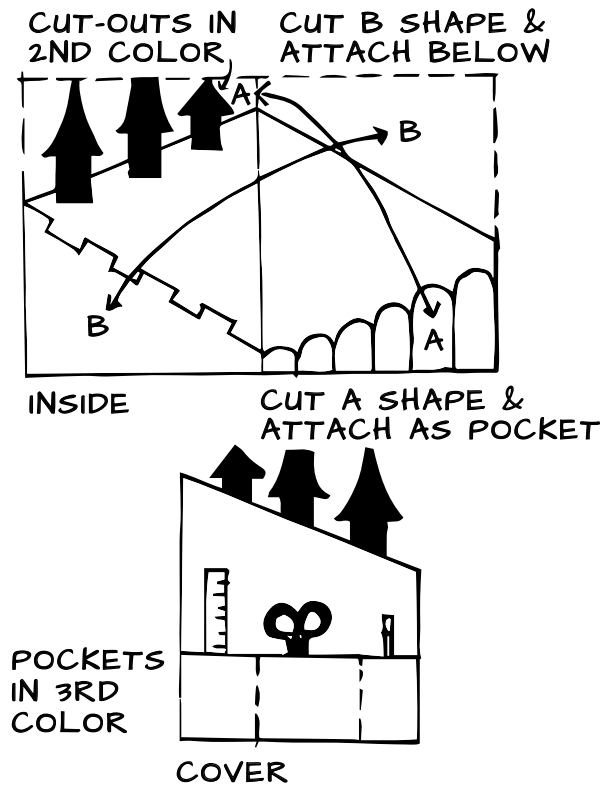


"It would be a good idea to try folding some scratch paper into a small model before you do anything to your colored paper."

**Conclusion:**

As some of the students complete their folders, have them tell the class how their design has met the design criteria, using the chart as a guide. This will encourage others to finish, and give them some ideas.

The students should keep all materials used in the program in the folder as a reminder that the activities are related and will help increase their awareness of the community in which they live. The architect and teacher should review the folders at the end of the program as a reference for class discussion about what they have learned.



**VOCABULARY REVIEW AND REFLECTION****2.11***How to Design a Functional Folder*

NAME

DATE

**Vocabulary**

Please write definitions to the following words:

|                 |             |
|-----------------|-------------|
| design          | <hr/> <hr/> |
| solution        | <hr/> <hr/> |
| problem         | <hr/> <hr/> |
| criteria        | <hr/> <hr/> |
| design criteria | <hr/> <hr/> |
| design process  | <hr/> <hr/> |

**Question:**

How does making design criteria help you when you design something?

|                                     |
|-------------------------------------|
| <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> |
|-------------------------------------|