

HOME ECONOMICS GUIDE



Published by the University of Missouri-Columbia
Extension Division
College of Home Economics

Learning Is Child's Play

MAY 12 1980 R

Learning Squares

Ginny Braden
Area Child and Family Development Specialist

Marilyn Coleman
Child and Family Development Specialist

Whether we think about it or not, surrounding us are many different shapes, sizes, and colors that we usually take for granted. It's normal to be less aware of surroundings as you get caught up in everyday living. But, as parents of young children who are learning about shapes, sizes, and colors for the first time, you should be instrumental in helping them.

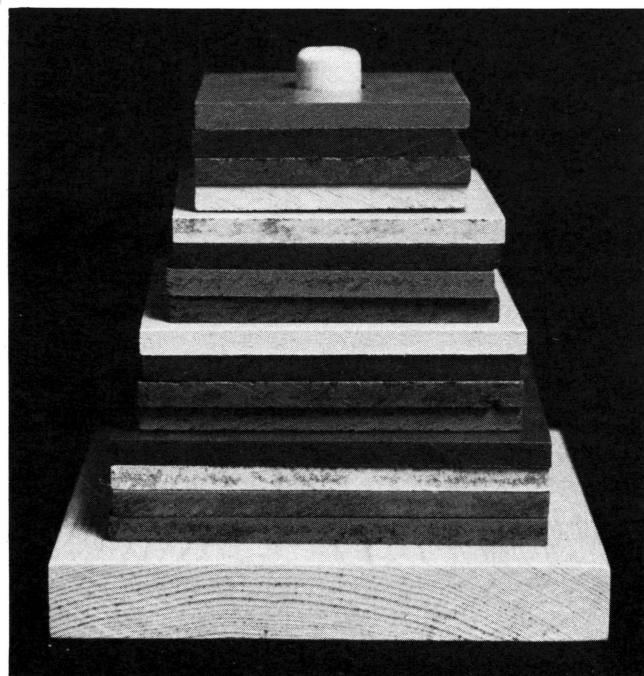
Look around the room you are sitting in right now. What are the *different shapes*? For example, are the doors in the room single doors, making a vertical rectangle or double doors, making more of a square shape? What circles can be seen—a clock perhaps? Triangles may be a little harder to find, but if there's a coat rack in the room, what shape are the hangers? Many shapes may be identified by looking at or thinking about common things.

Looking around the same room again, what different colors do you see? What colors are you and the others around you wearing? And consider sizes; look for the big things like doors or windows or tables. Look for small things like books, or tiles in the floor.

When talking with children about sizes, remember the perspective with which they look at things. Children are small themselves, so what they consider "big" or "little" may not seem that size to you.

These activities help children organize what they see in their surroundings into their own understanding. First, they learn to recognize and identify objects according to shape, size, and color; then they begin classifying or grouping things on the basis of their similarities and differences. Being able to group or classify makes it possible for children to deal with much more information than they could otherwise.

For example, they learn to classify dogs, cats, and cows as being in a group called animals. This saving in



Learning Squares

thought process can be compared to having one silverware drawer in your kitchen instead of having a separate drawer for forks, another for knives, one for spoons, etc. Knowledge can be unmanageable just as a kitchen can be if it isn't classified.

Classifying, being able to group things on the basis of their similarities and differences, requires skill in observation. If children do not learn to notice, study, and compare and contrast objects in their surroundings, they will be unable to sort, arrange, and classify objects according to their properties or characteristics.

It is easier for children to learn the meaning of things if their parents talk to them and use toys or other objects to demonstrate the ideas. If children learn, for example, the

meaning of “big” and “little,” they need to talk about and handle objects or toys so they can compare and contrast. They learn through eyes and hands what would be hard to describe using only words.

Just remembering to talk to children about all these things—shapes, sizes, and colors—will improve their awareness of the world around them.

Description

A toy that you can use to teach a child the concepts of same and different and the grouping that is an early step in classification skills is the *Learning Squares*.

The toy consists of 16 wooden squares that fit in order on a special wooden post. The squares must be stacked in the right order, by size, or they will not fit. The four largest squares (one red, one blue, one green, and one yellow) go on the bottom. The four smallest squares (one of each color) go on the top. There is one of each color in each of the four sizes.

You can make your own *Learning Squares*. The wooden post and base can be made out of an inexpensive wood such as pine. The squares themselves can be cut out of $\frac{1}{4}$ ” thick masonite (or even cardboard). The base and post can be kept natural color, but the squares will need to be painted bright red, blue, green, and yellow. Be sure to use a nontoxic paint on the squares.

Purpose

It is fun to think of all the games that can be played with the *Learning Squares*. These games help your child learn:

- To understand the concept of *same* and *not the same* as it relates to color and size.
- To recognize patterns in groups of things and to eliminate those items that do not belong. (This is called classifying).
- To recognize patterns and how to extend them.

Some game ideas follow to help you get started, but when children want to make up games, let them. Children have amazing ability to come up with their own games. Allowing children to do this encourages their creativity and self-expression—both of which are extremely important in the development of a preschool child.

Game I

The first game might be one that teaches children that some colors are the same and some colors are not. Using this toy will reinforce the child’s knowledge of the four colors of red, blue, green, and yellow.



Spread the squares out in front of the child. Let the child play for awhile to become acquainted with the parts of the toy. During this time it will be interesting for you to observe. Does the child stack the squares, or group them in any way? Does the child use the wooden post, or ignore it and only play with the squares?

To begin the actual game, gather up the squares and remove any that the child put on the wooden post. Give the child the eight largest squares and keep the other squares in front of you.

Pick up one of your own squares and say, “Please pick up one of your squares that is the same color as this red (blue, green, or yellow) square.”

If the child does not pick up a red square, say “That color is green (or blue or yellow). Please pick up a red square like mine.”

If the child does pick out a red square, say, “Yes, both of these squares are red. Put your red square on top of my red square.” If the child does not know what “on top of” means, demonstrate it.

Continue the game in the same manner, using the other three colors, until the child’s eight squares and your eight squares are matched.



Game II

Another game technique teaches sizes and their relationships. For example, place all of the green squares in front of the child and leave the others in front of you. Pick up any square of your own and say, "Show me one of your squares that is the same size as this square."

If the child picks up one that is a different size, place your square next to it. Wait for the child to discover that they are not the same size. If the child doesn't seem to see the difference, simply say they are not the same. Encourage your child to try again to find a square that is the same size as the one you are holding. Do this until all four of the child's squares are matched with squares of your own, or until the child is tired and does not want to play anymore.

Game III

The object of this game is to help a child to recognize patterns in groups of things and to learn to eliminate those things that do not belong.

If your child wants to play the game, first spread the squares out for the child to play with alone. Watch the child play. What does he or she do with the squares?

When the child seems ready to actually play a game,

sort the squares so there are three small squares and one large square in front of the child. Start with a statement like this: "Please point to all the squares in the group that are the same size;" or "Please point to the square that is different than all the rest."

As you are discussing those squares that are different and those squares that are the same, tell how they are different, such as: "Yes, that square is bigger or larger than the others;" or "Those squares are the same size—they are all smaller than the large one."

By using these words appropriately in many situations, a parent can teach a child the correct meanings and concepts.

Recognizing patterns in colors as well as patterns in sizes is another way to teach patterning or classification skills. For example say: "Please pick the colored square that is different from the other three;" or "That square is yellow. There are other yellow squares in the group. Try again to find the square that is a different color from all the rest."

Game IV

Learning patterns and how to extend them is the object of these games.

After the child has shown interest in playing the game and has had experience with Game III, let the child play with the squares briefly in any way he or she chooses.

Then, gather up all the squares. First, place all the largest squares in a row. Then take the remaining yellow squares and stack them in order.

Do this as the child looks on. Then say to the child, "What goes on the green square?" If the child does not understand, stack up the squares in order in the green unit.

Once the child has this particular pattern learned—demonstrate a different pattern while the child watches:

1. Take the largest red square, the
2. next-to-largest yellow square, the
3. next-to-smallest red square, and the
4. smallest yellow square.

Then say: "I will start another stack and you can try to finish it."

1. Take the large blue square, and the
2. next-to-largest green square. Then, the child is encouraged to finish with the last two steps.
3. Take the next-to-smallest blue square, and the
4. small green square.

If the child does not know how to finish it—do step number 3 yourself (the next-to-smallest blue square) and say "What color square goes on the top?"

Every time you do something, give children time to respond, but when you help them, explain exactly what you are doing in clear, concise language. Though it may seem easy and obvious to you, it's a difficult task to them. Simple, clear directions help children master the task. If directions are not clear and concise, children will become confused.