Children's Discovery Museum of San Jose

The Wonder Cabinet Worksheets

Coffee Filter Painting

In this open ended activity, children are invited to drop liquid watercolors onto a coffee filter. The colors will spread, diffuse, and blend to create a design. Encourage your child to experiment with colors, make new colors, and create their own rainbows!

In *The Wonder Cabinet*:

Today's activity is an opportunity to create a work of beauty and to experience science in action. For younger children, it can be an exploration of colors. They can name each color and watch as colors join to create new colors.

Older children can explore how the process works. The coffee filter is made of tiny fibers woven together. The filter has long, narrow, tube-like spaces in between the fibers. Water travels up these tubes drawn by air pressure. As each water molecule travels, it sticks to other water molecules, dragging them along for the ride. This process is called capillary action. Capillary action explains how water can travel against gravity up the stem of a plant. It also explains how a sponge can absorb water.

At Home:

You can extend your child's learning at home. Children can experiment with mixing colors in a plastic ice cube tray. Simply fill each compartment half full with water. Place a few drops of yellow food coloring in one compartment; red into another; and blue into a third. Leave the rest of the water clear for your child to mix and explore

For more fun with capillary action, dip a long wet string into bowls filled with water and different colors of food coloring. Watch the colors travel along the string. Look at a sponge or coffee filter under a magnifying glass to see the tiny tubes.

Suggested materials:

- Plastic ice cube tray
- Paintbrush
- Water
- Food coloring
- string

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