

# Learning through Science

## Colors Unit



by Paige Hudson

# Learning through Science Stage ~ Colors Unit

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# Learning through Science ~ Colors Unit

## Introduction

As an author and homeschool science curriculum writer, I have a lot of ideas that roll through my head. Some of them are realistic. Some — we'll let's just say that they don't make it to the printing presses.

In early 2013, I began to wonder — what if I could use science to teach my son all about his colors, shapes, and letters? You see at the time, my son was 3 years old and he was begging to do “school” with his older sister. I had learned from past experience that traditional worksheets and drills don't work for the younger crowd. Instead, I wanted to teach the preschool concepts he needed to know through activities and books.

Since I am a scientist at heart, I also wanted to find a way to increase his observation skills and to introduce him to the wonderful and amazing world of science. However, part of me wondered if that was really feasible for his age?

That's when the concept for *Learning through Science* entered the picture. My goals for these lessons were simple, I wanted to:

1. Increase a preschooler's powers of observation;
2. Introduce a student to the basic colors through science;
3. Initiate a child's desire to learn more the world around them.

In a nutshell, this unit was designed to be a very gentle introduction basic preschool concepts of colors and shapes within the backdrop of science. Some weeks you will accomplish more than others, but every week the students will enjoy learning foundational facts from the early years of education.

If you want to know more about my philosophy for teaching science to preschoolers, check out the following article:

☞ **Preschool Science** ~ <http://elementalblogging.com/preschool-science/>

## The Components

Each week you will find the following sections on the lesson plant sheet:

- ↳ Hands-on Projects;
- ↳ Read Alouds & Notebooking;
- ↳ Coordinating Activities;
- ↳ and Our Experience.

These sections are designed to give you the tools to introduce the main week's topic to the students.

Before I explain these sections in greater detail, let me tell you about the *Learning through Science Scrapbooking Pages*. These are not necessary for the success of this program, but they are definitely handy especially if you want to have all the pages ready to go for you. They are located at the rear of this unit after the Appendix. In any case, every time you see the  symbol, you will know that a suggestion for a page in the students scrapbook follows.

Now that we have that out of the way, let's look closer at the components.

## Hands-on Projects

The hands-on projects are designed to help the students see science in action. These projects will be a mixture of demonstrations and nature studies with a scientific bent. The goal of these projects is to allow the students to discover more about the world around them. Essentially, they will be pure observers of the science that is going on, while your job will be to point out to them any significant items of interest that pertain to the weekly topic.

To learn more about scientific demonstrations and nature study, please check out the following articles

-  **Scientific Demonstrations vs. Experiments** ~ <http://elementalblogging.com/science-corner-scientific-demonstrations-vs-experiments/>
-  **What is Nature Study?** ~ <http://elementalblogging.com/what-is-nature-study/>

## Read-Alouds & Notebooking

The books suggested in this section are meant to be read-aloud to the students. Each will reinforce the color being studied. The notebooking suggestions are ideas for how you can record what the student has learned for the week. If you choose to use the scrapbooking pages, there are notebook page templates already provided for you.

## Coordinating Activities

These activities in this section will help you to reinforce the theme color and shape. They include the following:

- ✂ **Art** — These activities are fun projects that tie in the color and/or shape studied for the week.
- ✂ **Math** — These activities will help the students learn to count from one to ten.
- ✂ **Fine Motor** — These activities will help the students work on their fine motor skills.
- ✂ **Movement** — These activities will help the students work on their gross motor skills.
- ✂ **Snack** — These activities are fun snack ideas that tie in the color and/or shape studied for the week.

Each of these coordinating activities are designed for you to pick and choose from based on what

the students are interested in doing for the week.

## Our Experience

Finally, I have included our experiences with each of the lessons to give you an idea of how it works in real life. As will see, some weeks everything went off without a hitch. Others — not so much, which is totally normal for life with a preschooler!

## A Final Word

As the author and publisher of this curriculum I encourage you to contact us with any questions or problems that you might have concerning *Learning through Science* at [info@elementalscience.com](mailto:info@elementalscience.com). I will be more than happy to answer them as soon as I am able. I hope that you and your preschooler will enjoy learning their colors through science!

~ Paige Hudson

# Learning Through Science

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Colors Unit

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## Colors Unit Overview

(7 weeks)

### Books Scheduled

#### Read-Aloud Suggestions

📖 See pg. 26-27 for a complete listing of suggested read-aloud books.

### Sequence for Study

- 📌 Week 1: The Color Red
- 📌 Week 2: The Color Yellow
- 📌 Week 3: The Color Blue
- 📌 Week 4: The Color Green
- 📌 Week 5: The Color Orange
- 📌 Week 6: The Color Purple
- 📌 Week 7: The Color Brown (Optional - Black and White)

### Supplies Needed for the Unit

Week	Hands-on Project Supplies	Coordinating Activities Supplies
1	Red apple	Red paint, 10 Red circles, 12 Red pom-poms, Egg carton, Red tongs
2	Banana, Blunt knife, Sheet with a rectangle on it	Glue, Glitter, 10 Yellow rectangles, Pasta, Yellow string, Yellow streamers
3	Blue food coloring, Several cups of warm water, A clear square container	Sponge, Blue paint, Paper, 10 Blue squares, Flour, Liquid dish soap, Blue food coloring, Milk, Blueberry muffins
4	Shaving cream, Plastic baggie, Yellow food coloring, Blue food coloring, Pencil	Yellow paint, Blue paint, 10 Green jellybeans, green play dough, Several green circles, Green food coloring, Eggs

Week	Hands-on Project Supplies	Coordinating Activities Supplies
5	Camera, Plastic Baggie	Salt, Yellow food coloring, Red food coloring, Wax paper, Glue, 10 Orange diamonds, Water, Eye dropper, Oranges, Goldfish
6	Milk, Liquid Dish Soap, Red Food Coloring, Blue Food Coloring, Shallow Dish	Purple paint, Green paint, Purple grapes, Elmer's glue, Liquid starch, Red food coloring, Blue food coloring, Purple shirt, Purple juice
7	Dirt, Water	Brown paint, Chocolate pudding, Brown crayon, Paper, Chocolate milk

# Learning through Science ~ The Color Red

## Weekly Topic

Focus: The Color Red

✦ You can also tie in the shape of a circle as you work through the week's material.

### Hands-on Project: Red Apple Observations

Supplies Needed

✓ Red Apple

Purpose

This purpose of this demonstration is to have the students explore and observe the different parts of an apple while highlighting the color red.

Instructions

1. Let the student observe an apple. Ask questions like:
  - ? How does it feel?
  - ? Is it soft or hard?
  - ? Is it smooth or rough?
2. Next, cut the apple in half width-wise, so that the seed pods create a star in the center. Show the students the different parts of the apple (*the skin, flesh, seeds, stem*).
3. Talk about how an apple is a fruit that protects the seed, which has the ability to make a new plant. You can also point out to the students how the shape of an apple is a circle.
4. Let them trace the outside of the apple to see if they can make a circle.
5. Once they are done observing the apple, let the students take a bite of the flesh of the apple (not the seeds) and ask them how it tastes.

Take it Further

Have the students observe, examine, and compare other red fruits, such as a tomato, a cherry, a strawberry, and rhubarb.

### Read-Alouds & Notebooking

Read Aloud Suggestions

- 📖 *The Little Red Hen* by Diane Muldrow
- 📖 *Llama Llama Red Pajama* by Anna Dewdney
- 📖 *Big Red Barn* by Margaret Wise Brown

Notebooking Ideas

- ✓ Have the students place stickers or pictures that match the color red.
- ✓ Have the student stamp red circles on their color red page. Then, once the circles are dry, use a marker to add a stem and leaves to make stamped shapes look like apples.
- ✍️ Use SP 3 for the notebooking page.

## Coordinating Activities

These following ideas will help you to reinforce the theme color and shape.

- ✂ **Art** — Make apple prints with red paint using one half of the apple you cut up.  
     📖 Use SP 2 for this project.
- ✂ **Math** — Cut out ten red circles and use them to practice counting to ten.
- ✂ **Fine Motor** — Have the students move at least twelve red pom-poms from a bowl to the cups in an egg carton using a pair of red tongs if possible.
- ✂ **Movement** — Play the Stop/Go game using a big red circle to signal “stop” for the students.
- ✂ **Snack** — Eat red foods such as strawberries, tomatoes, cherries or red jello.

## Notes

### Our Experience

*Our son is three and a half at the time of writing this unit. The highlight of his week was when we played the Stop/Go game, which really surprised me. He did enjoy examining the apple closer with a magnifying glass, but painting the apple was more up his alley. He also love making a page for the color red. We used stickers, stamps, and made little red fingerprint ladybugs.*

*Although he can count to ten, when he feels like it, having him count with circles did not go over well at all. On the other hand, he was very happy to count the pom-pom balls as he put them in the egg carton. I will never completely figure out the preschooler psyche!*

# Learning Through Science ~ Colors Unit

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Scrapbooking Pages

SP 2

## Red Apple Prints

# The Color Red