

WALKING RAINBOW

Joseph and the Coat of Many Colors

(Genesis 37)



Introduction

Simple yet extravagant, this experiment is marvelously colorful. And, you know, it reminds me of a Bible story about something that was also marvelously colorful: Joseph's coat of many colors. Today you'll watch as color walks up white sheets of paper towel and becomes a stupendous display. We at Fizzlebop Labs call it the Walking Rainbow.



Fizzlebop Supply List

- 7 clear 8-oz (240 mL) glasses or plastic cups
- 4 cups (960 mL) water
- Food coloring (red, yellow, and blue)
- Roll of paper towels
- Scissors

FIZZ TIP: Paper towels that divide into half sheets and are highly absorbent work best.



The Experiment

- 1 Put all 7 clear cups in a row and fill the first, third, fifth, and seventh cups nearly to the top with water. Leave the others empty.
- 2 Add 10 drops of red food coloring to the first cup and the seventh cup.
- 3 Add 10 drops of yellow food coloring to the third cup.
- 4 Add 10 drops of blue food coloring to the fifth cup.
- 5 Rip 6 half sheets of paper towel from your roll. (If you have regular-size paper towels, rip off 3 sheets and cut them in half lengthwise.)
- 6 Fold each half sheet of paper towel in half lengthwise and in half again lengthwise.



7 Trim the paper towel sheets so they are about 8 inches (20 cm) long. Make sure the ends of the paper towels can reach the bottoms of each cup, from one cup to the cup next to it. If you use taller glasses, you may need to leave the paper towels full-length.

8 Place one end of your folded paper towel in the first cup and place the other end in the second cup. Then do the same with another paper towel from the second cup into the third cup. Continue this process (third cup to fourth, fourth to fifth, fifth to sixth) for all seven cups.

9 Observe what happens.



“Dr. Fizzlebop, what’s happening?”

While you should immediately see the colored water absorbed into the paper towels, what happens in the empty cups is the wondrous part. Check back every couple of minutes, and soon you will notice that the colored water has walked up each paper towel and is starting to walk down into the neighboring empty cup. A little longer and those empty cups will fill with colored water, and by the end of the experiment, all of the cups will end up with the same amount of water in them. Since the empty cups start with a different color on either side, the colors will blend together. Eventually you should see three new colors added to your lineup of cups. You have officially made a walking rainbow!

Devotional

I don’t know about you, but when we tried this experiment at Fizzlebop Labs, we had wide eyes and open mouths! God’s wondrous world is truly magnificent. God is so creative, and I just love all the colors he thought up!

Have you ever tried to come up with a new color before? It's a real brain-buster!

Colors are all around us, and there's a story in the Bible all about a colorful object. Take a minute and open up your Bible to Genesis 37.

Joseph was one of the twelve sons of Jacob, and Jacob gave him something very special: a colorful robe. That robe was definitely a fizztastic gift. But even though Joseph really liked the robe, his brothers were jealous instead of ecstatic for him.

Have you ever been jealous before? Jealousy is when you look at something someone else has and you wish you had it instead of them. God actually warned us about jealousy. In Exodus 20:17, God said: "You must not covet [or be jealous of!] your neighbor's house . . . or anything else that belongs to your neighbor."

But why would God warn us about jealousy? Well, jealousy is super sneaky. It starts like a little bit of color traveling through a paper towel until it reaches the other side, and suddenly you see jealousy everywhere! One minute you're doing swell, and the next minute you're feeling like nothing will be marvelous again until you have what belongs to someone else.

One time I got super jealous. It happened when I entered this huge science experiment competition. Each scientist was supposed to create his or her own special experiment, and then the judges would decide which one was the most magnificent. Well, my experiment went well, but my friend Dr. Swishpop had an experiment that honestly was better than mine. Her experiment was stupendous! But . . . I let jealousy get in the way.

And instead of being excited for my friend, I was jealous. In fact, I didn't talk to her the whole rest of the competition. But later I stopped and remembered this very story about Joseph and his brothers who were jealous. And so I went and congratulated Dr. Swishpop and asked God for forgiveness for my jealousy.

If you're feeling jealous of someone else, take a second and

thank God for that person. Thank God for the gift that he gave to them. And then thank God for the gifts and good things he's given *you*. You might be surprised at how many good things God has done for you that you can be thankful for!

Collecting Your Family's Data

What new colors did you see created?

Did any of the colors "walk" more quickly than the others?

Think of a time you were jealous of someone. How did you handle your jealousy?

Prayer Time

Amazing Creator, forgive us when we feel jealous of other people. Help us to be excited for them and help us to be thankful for all the good things you've done for us. Thank you for being a wondrous God who does wondrous things! Amen.