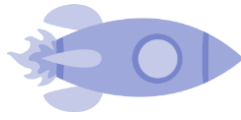




## Blessed Are Who?

**This is the Science Guide for Day Five.  
The complete Guide is available online at  
[bannerblue.org](http://bannerblue.org).**



## Day Four: Food is Fantastic

**Key Beatitude:** Blessed are **the poor in spirit**, for theirs is the kingdom of heaven.

**Story Character:** Tabitha

**Experiments Overview:** Today the kids will experiment with how milk can magically morph colors and then discover a surprise element in their breakfast cereal.

**Guiding Question:** Are there even secrets to the things we eat?

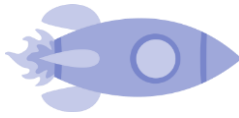
### Questions to ask the kids while you're exploring together:

- Has anyone ever told you that you should drink your milk to grow big and strong?
- Where does milk come from?
- What's the difference between milk and water?
- What do you think is hidden inside milk?
- Are there also surprising things hidden inside your cereal?
- How did those things get there?
- Do you eat the same breakfast every day?
- How did Tabitha's community count on her every day?
- How can you be like Tabitha for your community?

### First Experiment: Magic Milk

This experiment shows how the proteins and fats in milk are affected when their molecular structure is weakened.

**Learning Objective:** Even though the milk is becoming weaker it also looks more beautiful. Some people would have thought of Tabitha as weak because she didn't care about becoming rich or powerful but through Jesus we can see that it wasn't weakness. Tabitha had very little wealth but her community saw her as it's greatest treasure.



### Supplies Needed:

- Pie Plate
- Dish Soap
- Milk (at least 3 cups)
- Food Coloring

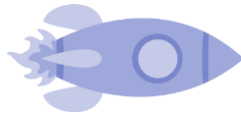
### Experiment Instructions:

1. Pour milk into the pie plate about halfway full.
2. Add a few drops of food coloring to different areas of the milk.



3. Put one drop of dish soap in the center of the milk and watch as the colors swirl around one another. You can also dab the soap into the milk using a cotton swab. The milk swirls around as the dish soap expands outwards breaking down the molecules of fat and protein in the milk, taking the food coloring with it. You can restart the experiment and allow the kids to drop the dish soap into the milk themselves or add more soap to the same milk to see what happens.





## Second Experiment: Eating Nails

This experiment shows kids the awesome elements hidden in our ordinary food.

**Learning Objective:** We eat cereal just about every day. Why? Because cereal is an excellent way to get a lot of the minerals and vitamins that our body needs. Tabitha was a regular person who had an extraordinary life because she devoted it to providing for others. From the outside Tabitha might have looked like nothing special but looks can be deceiving. When she suddenly wasn't there any more, the people were desperate to get her back. Our foods, like cereal, often hide something special too.

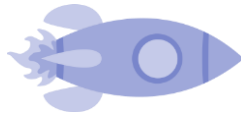
### Supplies Needed:

- Frosted Wheats Cereal
- Ziploc Bags (quart size)
- Strong Magnet
- Water Tap

### Experiment Instructions:

1. Give each kid a bag. Open the box of cereal and give each kid a small handful to place in their bag. Instruct the kids to use their fingers to break the cereal up into tiny pieces. Give each kid a magnet and ask them to see if they are able to attract anything in their cereal (they should not be able to at this point).
2. Next pour 2 cups of warm water into each bag of cereal crumbs and instruct the kids to break up the cereal even more.





3. Ask the kids to attempt to attract something with their magnet again. If they carefully move their magnet back and forth over the cereal crumbs they should be able to collect some bits of iron.



4. If you have extra time, float a few pieces of cereal in water and attempt to move them with the stacked magnets. The movement might be subtle but with practice you should be able to control the cereal.