

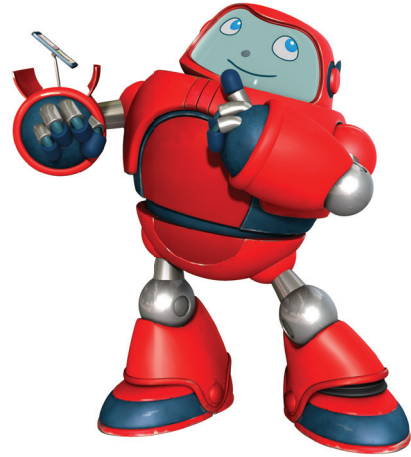
STEM ACTIVITY

JESUS FEEDS THE HUNGRY

Total Time: Approx 20 minutes
In Class Time: 10 minutes

You will need:

- Pencils — one per student
- Jesus Feeds the Hungry STEM Activity page 3—one copy per three students
- Scissors—one per student
- Tape—one roll for every two to three students



STEP 1: Make copies of the STEM Activity page three. Make one copy for every three children and cut apart on solid lines. Give one to each child.

STEP 2: Dispense scissors and tape to children. Each child should have one pair of scissors and may share tape.

STEP 3: Instruct children:

Today, we are going make empty baskets to into baskets full of fish and loaves and empty glasses into glasses full of wine.

STEP 4: Have children cut along dotted lines and fold on solid lines.

STEP 5: Start with the basket and fish. Instruct children to tape the open edge of the paper together, leaving an opening in the center.

STEP 7: Instruct children to slide the pencil into the opening and affix the paper to the top of the pencil using tape.

STEP 8: Instruct children:

Now, you may roll your pencil in your hands back and forth very quickly and watch as the two pictures blur together to become one. The basket will now look full of food as you spin your pencil back.

STEP 9: Repeat steps four through eight with the wine glass illustration.

STEP 10: Instruct children:

Next, you may draw two images of your own on the remaining papers. Remember, one side should be something empty and the other side should be something to go inside the empty object. Remember to make the outside object slightly larger than the inside object.

Suggest the following ideas:

Fish—Empty fish bowl

Cookies—Empty plate

Boy or girl (shoulders up)—Window

Boy or girl sitting—Swing

EXPLAINING THE SCIENCE:

OPTICAL ILLUSION

Optical Illusion: something that deceives the eye by appearing to be other than it is.

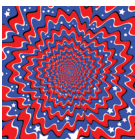
What we made today is called an optical illusion. An optical illusion is not what Jesus did when he turned water into real wine or two fish and five loaves into enough to feed thousands.

There are three types of optical illusions and they can be fun to try.

1. **Literal optical illusions** create images that are different from the objects that make them.



2. **Physiological optical illusions** affect the eyes and brain with a lot of brightness, color, tilt or movement.



3. **Cognitive optical illusions** cause the brain to fill in information that isn't really there.



When we began to spin the images, our brains tried to fill in the gaps of information or missing parts. Our eyes can only see images at a certain speeds, therefore, our brains merged the images together. This is an example of cognitive illusion.

