STEM ACTIVITY

Jesus Friend of Sinners

Total Time: 20 minutes
In Class Time: 15 minutes

You will need:

- Stack of index cards
- Small binder clip
- Picture frame with glass (5x7)
- Sheet of white paper
- Bright flashlight
- Markers

STEP 1: Use a binder clip to hold together the short end of a stack of index cards. This will be your flip book.

STEP 2: Remove the picture and cardboard backing from a picture frame, and tape a piece of white paper to the back side of the matte. Leave the backing off. This will be your light table.

STEP 3: Gather the children. TEACH: Joy was going to have Jolie over to watch movies. Why don't we make our own!

STEP 4: Remove the clip from your flipbook, and draw the first frame of your movie. (Keep it simple!)

STEP 5: Place the first frame card on the light table, then put a blank card directly on top of it, lining up the edges. Shine a flashlight on the back of the light table to see the first frame through the card. Then trace your second frame on the top card, changing whatever you want by small degrees to create the illusion of motion.

STEP 6: Remove the old frame and repeat step 5 with your new frame on top until you have all the frames you need for your movie. Then replace the clip and flip through the cards to show your movie.

STEP 7: Let the children make their own flipbook movies as your supplies allow. Not everyone has to draw their own. One's job could be to hold the flashlight while another holds the frame, another draws, and yet another organizes the finished cards!

EXPLAINING THE SCIENCE:

The Phi Phenomenon is a term used for the illusion created when a light goes off in one place as another comes on nearby. It looks as if the light 'moved' from one place to the next. Scientists call this persistence of vision, meaning that the images you see stay longer in your mind than they do in reality. Because of this, viewing a series of similar still images creates the illusion of movement as your mind focuses on the differences between the images while the similarities persist. These are the foundation of the process of animation.