

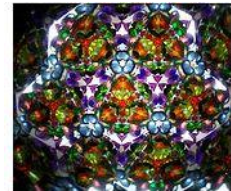
CRAFTY TUESDAYS



TOILET PAPER KALEIDOSCOPE

What a great way to create and learn about optical illusions! Girls can achieve the following programming by making a kaleidoscope:

- Guides: Beyond You – Try New Things
- Pathfinders: Everything Comes from STEM
- Rangers: Explore Your Creativity



MATERIALS

- Toilet paper roll
- Scissors
- Glue and Tape
- 4.5" x 4" piece of cardboard
- 4" x 4" clear plastic wrap
- 6" x 6" Aluminum foil
- Colourful construction paper
- Opaque beads of various colours
- Markers
- Hole punch

INSTRUCTIONS

1. Wrap up the 4.5" x 4" cardboard with the aluminum foil.
2. Fold the wrapped cardboard lengthwise into three segments to create a triangular tube.
3. Carefully insert the triangular tube into the toilet paper roll so that it sits snugly inside.
4. Cover one end of the toilet paper roll with the clear plastic wrap. Use tape to secure the wrap to the roll.
5. Cut out a circle from the construction paper. Be sure it is large enough of a circle to cover one end of the toilet paper roll, with extra paper to tape it securely in place on the sides.
6. Using the hole punch, punch a hole in the centre of the circle.
7. Fill the inside of the triangular tube with a spoonful of opaque beads. Be sure not to overfill. There needs to be enough room for the beads to move around.
8. Secure the construction paper circle with the hole punch to the uncovered end of the toilet paper roll. Use extra tape to make sure the paper is secured to the sides of the roll.
9. Cover the outside of the roll (not the ends) with more construction paper, and use tape to secure the wrapping in place.
10. Decorate the roll with markers.

ENHANCE THE LEARNING

Guiders! Ask your girls to consider what is happening inside the tube:

- What is causing the beads to reflect inside the kaleidoscope?
- Do you think that the triangle tube and light help make this illusion happen? How?