INSTRUCTIONS FOR MAKING PINHOLE CAMERA

The teacher should go through the instructions once with the children and provide assistance when the children are building their own pinhole camera.

Supplies Needed:

- $_{\circ}$ 2 Toilet rolls
- $_{\circ}$ Wax paper
- \circ Stapler
- Black paper
- \circ Scissors
- Rubber bands
- ∘ a pin
- o tape

Instructions for making Pinhole Camera

Step 1:

Cut one of the cardboard tubes along the length, so that it opens out into a rectangle. Re-roll it into a cylinder (just like the way it was before) but this time overlap the ends so that the roll is a smaller cylinder. Tape the ends together and staple to reinforce it. It should be able to fit into the other toilet roll. You have just constructed tube 1.

Step 2:

Cut out a square of wax paper (bigger than the circumference of the tube) and cover one end of tube 1 with the wax paper. Push the sides of the wax paper that are sticking out from the hole, down against the tube. Use the rubber band to secure the wax paper to the tube, ensuring that the hole is entirely covered by the wax paper when you do this. Make sure that this tube with the wax paper and rubber is still able to fit tightly into the the other toilet roll.

Step 3:

Cut out a square of black paper bigger than the circumference of the second toilet roll and cover one end of the toilet roll the black paper. Push the sides of the black paper that are sticking out from the hole, down against the tube. Use the rubber band to secure the black paper to the tube, ensuring that the hole is entirely covered by the black paper when you do this.

With a pin make a small hole in the center of the black paper. This is tube 2.

Step 4:

Insert tube 1 with the wax paper into tube 2. The end with the wax paper should go head first into the open end of the other tube.

You now have a pinhole camera! You can decorate it if you like. Look through the open end of tube 1 so that you can see the wax paper. Aim it towards a light source like a bulb, the sun or even a window and look at the wax paper. Move tube 1 in and out of tube 2 to focus the image you see. What do you notice?