

**Age Level:**

Kindergarten on up

**Subjects:**

Science

Art

**Materials:**

- 9 x 12-inch construction paper
- Tape
- Grid Sheet for each student
- Pencil

**Learning Objectives:**

- To provide students with a method for separating individual objects from a complex environment and to record what is seen in a visual manner.

**Teacher and Design Professional:**

This activity may be done many times, but a good place to start is after the drawing lessons. It is a good involvement for the design professional because the students have fun doing it.

**Rationale:**

The cone is a tool for the students to use as you would a telescope, which makes it fun, but serves a useful purpose. By having the students focus on a single object and record it by sketching a picture of it, they are learning a method for visual imaging and data recording items.

**Presenting the Activity:**

Give each student a sheet of paper to roll into a cone shape with an opening big enough to see through easily. Have them tape it firmly together.

If the activity is to be done in the classroom, make the opening about 1/2-inch. If it is to be used outside, make the opening 1/4-inch. Have the students locate these dimensions on a ruler.

This activity was tried with a piece of cardboard with a pinhole opening, simulating a camera. This does not work, because the eye needs to be a little distance from the opening to narrow the focus on small details.

*“Close one eye and look through this telescope with the other. Move it around the room slowly and pick out things in the room.”*

Give the students a few minutes to look around without comments.

*“Tell me something that you just saw that you have never noticed before.”*

After a short discussion, hand out the Grid Sheet or have the students fold a sheet of paper into 16 rectangles.

*“You will notice that this sheet has 16 spaces on it. You will see one thing already drawn on your sheet. Would you have noticed an electric plug?”*

*“Slowly move your telescope around the room, going from the ceiling to the floor, and see if you can find something that maybe no one else will find.”*

*“As you notice each thing, make a quick sketch of it in one of the spaces on your grid sheet. Try to fill in all of your spaces.”*

**Closure:**

Have the students compare their sheets in small groups and report on their three most unusual items.

**Extension:**

Repeat the activity in some other area of the school or school yard. On neighborhood walks, this is an excellent way to focus on and record architectural details.



CONE TELESCOPE

**GRID SHEET**

**2.35**

*What Do I See Through My Telescope?*

NAME

DATE



			