



Lesson Plan: Making a Hat from a Paper Cup Using STEM Principles

<https://www.youtube.com/watch?v=tx93QehDvPk>

Grade level: Upper Elementary (7-10 years old)

Duration: 1 hour

Objective: Students will learn how to create a simple hat from a paper cup, developing their fine motor skills, creativity, and ability to follow instructions. This lesson plan will help students develop crafting skills, foster creativity, and enjoy a fun and interactive activity.

Materials needed:

- Paper cups (one per student)
- Colored construction paper or craft foam
- Scissors
- Glue sticks or liquid glue
- Markers, crayons, or colored pencils
- Decorative items (e.g.: stickers, glitter, ribbon)
- Tape
- Ruler (optional)

Preparation:

1. Gather all materials and prepare the workspace.
2. Set up a demonstration area where you can show the steps to the class.
3. Optional: Prepare templates for decorations to help students who might need extra guidance.

Lesson Procedure

Introduction (10 minutes):

1. **Introduction to Craft:** Explain to the students that they will be making a hat from a paper cup. Show a sample hat and discuss how it can be customized with different decorations.
2. **Objective:** Share the objective of the lesson and what they will be learning and creating.

Activity steps (40 minutes):

1. Preparation (5 minutes):

- Give each student a paper cup.
- Distribute the colored construction paper or craft foam, scissors, glue, markers, and other decorative items.



2. Cutting and shaping the hat (10 minutes):

- **Step 1:** Instruct students to cut the top rim off the paper cup, creating a cylinder shape.
- **Step 2:** For the hat's brim, have them cut a circle of construction paper or craft foam that is slightly larger than the diameter of the cup.
- **Step 3:** Glue the brim to the bottom edge of the paper cup cylinder, ensuring that it's centered and secure.

3. Decorating the hat (15 minutes):

- **Step 4:** Allow students to use markers, crayons, or colored pencils to decorate the outside of the hat. They can also add stickers, glitter, or any other decorative items.
- **Step 5:** Encourage creativity by having them design patterns or themes for their hats (e.g., party hats, animal hats).

4. Finishing touches (10 minutes):

- **Step 6:** If desired, students can add additional features such as a ribbon or bow to the hat using glue or tape.
- **Step 7:** Allow time for the glue to dry, if necessary.

Conclusion (10 minutes):

1. **Showcase:** Have students present their hats to the class. Discuss the different designs and creative choices made by each student.
2. **Reflection:** Ask students to reflect on what they learned and enjoyed about the activity. Discuss how the skills they used could be applied to other crafts.

Assessment:

- **Participation:** Observe students' participation in the activity and their ability to follow instructions.
- **Creativity:** Assess the creativity and effort put into decorating the hats.
- **Completion:** Ensure each student completes their hat and applies the skills learned in the lesson.

Multiple choice questions:

1. What is the first step in creating the hat from the paper cup?

- A) Decorating the cup with markers
- B) Cutting the top rim off the cup
- C) Gluing the brim to the cup
- D) Adding a ribbon

2. Which material can be used to make the brim of the hat?

- A) Construction paper
- B) Markers



- C) Glue sticks
- D) Tape

4. **What is the main objective of this lesson?**

- A) To learn math skills
- B) To create a simple hat and learn to follow instructions
- C) To learn the history of hats
- D) To practice writing skills

True or False:

- 4. **True or False:** The students should glue the brim to the top of the paper cup.
- 5. **True or False:** Students are encouraged to add decorations like glitter and stickers to make their hats unique.

Fill-in-the-Blanks:

- 6. In Step 2, students create the hat's ____ by cutting a circle of construction paper or craft foam that is larger than the cup.
- 7. In the final steps, students can add additional features like a ____ or a ____ using glue or tape.

Extension activities:

- **Creative Prompt:** Imagine your hat is magical. What powers does it have and how would you use it?
- **Math Extension:** Use a ruler to measure the diameter of the brim and the cup, calculating the difference.

To encourage students to think critically about the STEM fields involved, you could ask:

Which STEM fields do you think were used in making a hat from a paper cup, and how did each field play a role?

This question helps them recognize:

- 1. **Science** – Understanding material properties of paper, glue, or paint.
- 2. **Technology** – Using tools for cutting or decorating.
- 3. **Engineering** – Thinking about structure and design to ensure stability and wearability.
- 4. **Math** – Measuring dimensions and planning layout for symmetry or decoration.