



3D MASK

Grade Level: 4th
Duration: 60 minutes

PROJECT DESCRIPTION

Students will create a 3D panda mask, applying basic geometry and measurement concepts in a fun and engaging way.

STEM & ACADEMIC CONCEPTS



SCIENCE



ENGINEERING



MATH



WRITING

OBJECTIVES

- Students will create a 3D panda mask, applying basic geometry and measurement concepts in a fun and engaging way.

MATERIALS (INCLUDED)

- Panda Mask Template
- Ribbon

MATERIALS (NEEDED)

- Tape
- Ruler
- Pencil

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Engage (Duration: 10 minutes)

- Begin with a brief discussion about masks and their uses in various cultures and contexts.



Explain (Duration: 20 minutes)

- Introduce the project – creating a 3D panda mask – and explain the basic steps involved.

Distribute Materials

- Hand out the Panda Mask Template and other materials to each student.
- Shapes and Angles:
 - Identify Shapes: Ask students to identify different shapes in the mask template (e.g., circles for the eyes).
- Measurement Activity:
 - Measure and Cut: Students will use their rulers to measure and cut out the mask, ears, and eye holes. Emphasize precision in measurement.

Activity (25 minutes)

- Assembly Instructions:
 - Step 1: Carefully cut out the mask, ears, and eye holes.
 - Step 2: Glue the middle panels together and secure on the back with a little masking tape
 - Step 3: Stick the two side panels together as shown.
 - Step 4: Attach a length of ribbon to either side of the mask, using glue and masking tape for a firm hold.
- Math Integration:
 - Measure Ribbon Length: Have students measure and cut the ribbon to specific lengths.

Conclusion (5 minutes)

- Review: Summarize the steps taken to create the mask and the basic math concepts applied.
- Showcase: Allow students to present their completed masks.

Reflection Exercise: Have students reflect on the activity and discuss what they enjoyed the most.

Discuss how precision in measurement and geometry is essential in real-world applications.



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Assessment

- Observe students during the activity to ensure they are accurately measuring and assembling the mask.
- Review their masks for precision and neatness.



Extensions

- Advanced Geometry: Introduce more complex geometric shapes and angles for higher grades.
- Math Art Integration: Have students design their own mask templates using various geometric patterns and shapes.