STEAM Challenge: Recycled Giraffe

Project Overview

Your challenge is to design and build a freestanding giraffe using primarily recycled materials. Your giraffe should resemble a real giraffe in appearance while demonstrating creativity, engineering, and problem-solving skills.

Project Requirements

Your giraffe must meet the following requirements:

- Height: At least 24 inches (2 feet) tall and no taller than 36 inches (3 feet).
- Construction: Must be made from mostly recycled or reused materials.
- Stability: Must stand on its own for at least 30 seconds without support.
- Features: Include a neck, four legs, a tail, two ears, two eyes, horns (ossicones), and a spotted pattern.
- Creativity: Use recycled materials in unique and innovative ways.

Suggested Recycled Materials

Choose materials you already have at home whenever possible.

- Cardboard boxes
- Paper towel or toilet paper tubes
- Egg cartons
- Plastic bottles
- Milk or juice cartons
- Cereal boxes
- Newspaper or magazines
- Brown paper bags
- Scrap fabric or felt
- Bottle caps
- Plastic lids
- Popsicle sticks
- String or yarn
- Aluminum foil
- Paper plates
- Small clean containers

Additional Supplies

The following supplies may be used to assemble your giraffe:

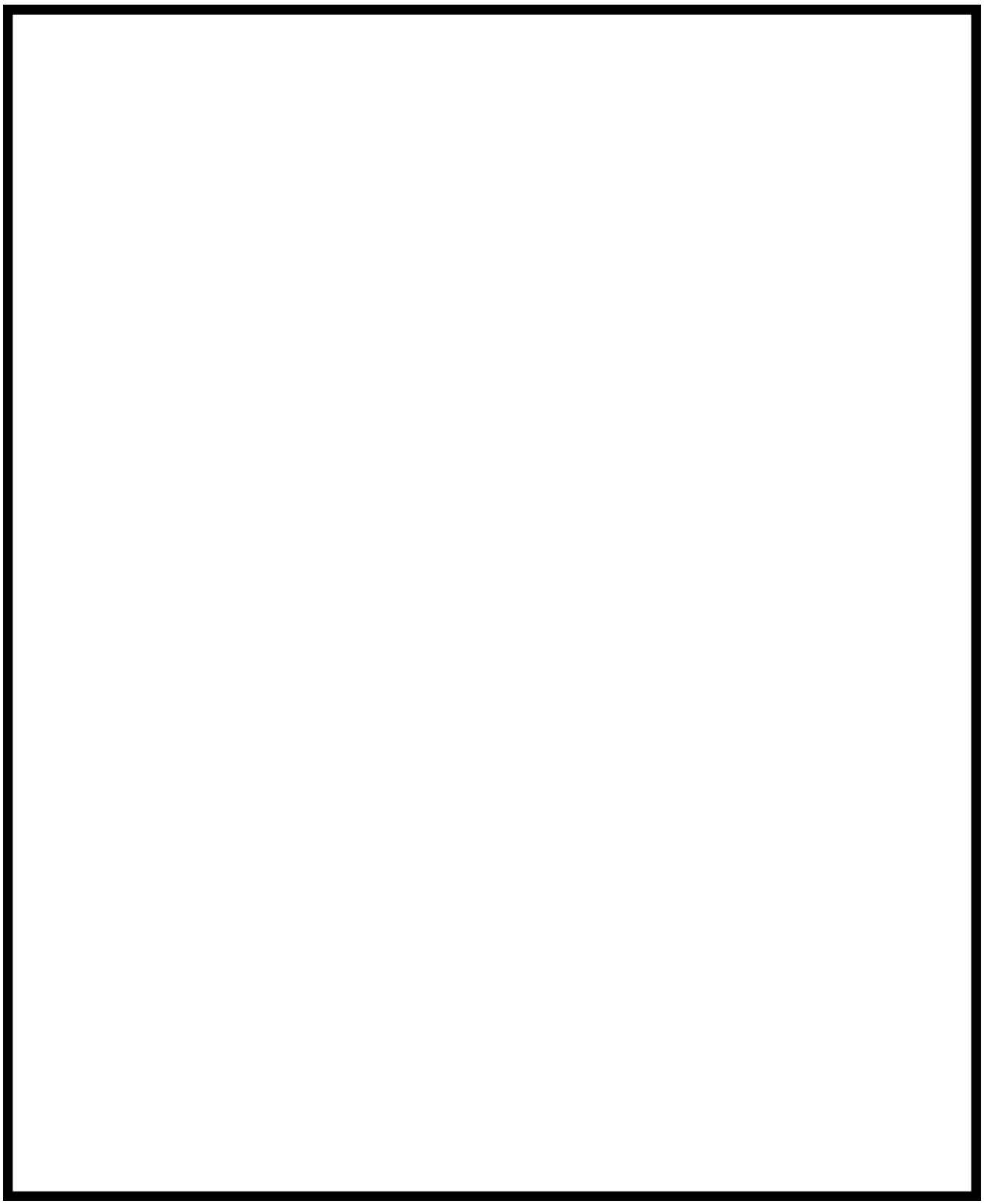
- Glue or hot glue (with adult supervision)
- Tape (masking, clear, or duct tape)
- Scissors
- Hole punch
- Paint or markers
- Construction paper
- Pipe cleaners
- Ruler or measuring tape
- Pencil

Design Process

- Research what a giraffe looks like and identify its key features.
- Sketch your design before building.
- Decide which recycled materials will work best for each body part.
- Build your giraffe, making sure it can stand independently.
- Test your design and make improvements if needed.
- Add color, spots, and finishing details.

Blueprint of Giraffe

Include labels telling what material you will use for each part.



Reflection Questions

1. Which recycled materials did you use?

2. What was the biggest challenge while building your giraffe?

3. How did you solve that challenge?

4. If you built your giraffe again, what would you change?

5. What engineering skills did you use during this project?