1ˢᵗ– 5ᵗʰ Grade Challenge

Prompt: Design and engineer a futuristic backpack for kids.

The Challenge:
Explain to students that Rozzy Inc. wants to sell a futuristic backpack to kids. It is your students' job to design and engineer a backpack that is unlike any other. Students will also need to name their backpack and design a logo that can go on the backpack.

Backpack Criteria:
- 3 new features that current backpacks do not have (example: refrigerator, basketball hoop, TV) (Tip! Brainstorm as a group features that you would want to have)
- A way to carry the backpack (example: straps, handle)
- The only permitted supplies are recycled materials and common classroom art and building supplies. See page with list of suggested materials.
- Logo design must be hand drawn (see logo suggestions below)
- Paragraph (5-7 sentences) explaining their backpack design choices

Rules:
1. Adults can help provide guidance on projects, however we want kids to be in charge of creating! We expect all projects to look like children made them!
2. Adults must submit the entries by April 15 at 11pm EST.

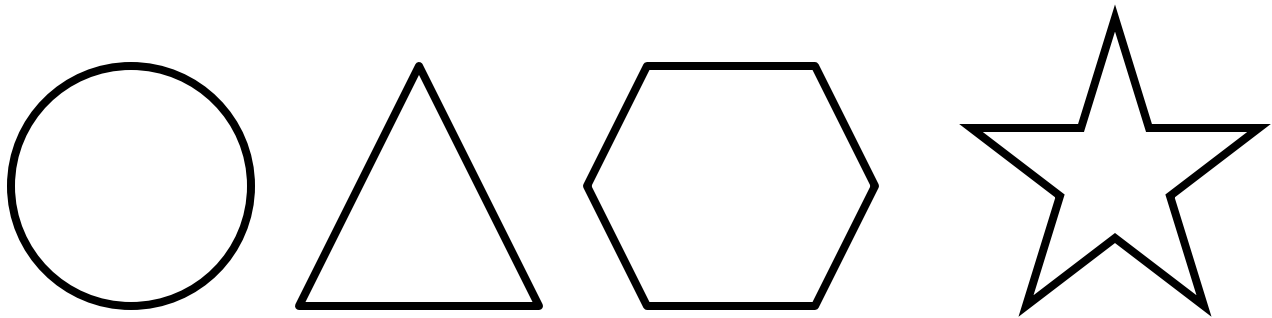## Entry must include the following:

1. Name of school and teacher OR parent who oversaw project
2. First name of child(ren) who completed the project
3. Up to 4 pictures of the project at different angles
4. 5-7 sentence description on their project (we want to understand what they made and why they made it)
5. Submitted on a Powerpoint slide (if submitting multiple entries, all entries must be submitted in one Powerpoint)

Rubric (50 points):

- 5 points (15 total) for each new feature
- 10 points for creative use of materials (used many different materials)
- 10 points for description of project
- 5 points for creative name of backpack
- 10 points for logo design

Designing A Logo

Step 1: Pick a shape for the logo. The shape can be simple (like the ones bellows) or reflect an actual product or item. For example, if you are designing a logo for a car company, your logo could be in the shape of a car or wheel.

Step 2: Decide what your message will be. Are you trying to get people to buy something? Are you trying to get people to laugh or feel good or happy? Write down what emotions and actions you are trying to get people to feel and do when they see your logo.

Step 3: Decide what colors and pictures need to go in your logo. If you are creating a logo for an aquarium, the colors should remind people of the sea and have fish and marine life in the logo.

Step 4: Draw out your ideas for your logo. Draw several versions and decided which you like best or even combine ideas!

General Supplies List

This is not an exhaustive list – please add your own supplies

Suggested Art Supplies:

- Pipe cleaners
- Tissue paper
- Colored construction paper
- Popsicle sticks
- Markers, crayons, colored pencils
- Glue and tape
- Straws

Suggested Building Supplies and Recycled Materials

- Tinfoil
- Cardboard
- Plastic cups
- Jars
- Loose parts! Nuts, bolts, PVC pipes, tubes
- Fabric
- Egg cartons
- Crazy items! Pool noodles, seashells, etc.