

DESIGN CHALLENGE: TROPHY TRIATHLON

TROPHY TRIATHLON:

Can you design and construct a trophy for prize-winning sports equipment?



DESIGN!

As a team, choose a ball to design a trophy for and begin!

- 1 ASK:** Explore the properties of the chosen ball and the materials available. What materials could hold the most weight? What orientations and shapes are the strongest? Test some of the materials by applying weight and pressure to them. How do they perform?
- 2 IMAGINE:** Brainstorm different shapes and structures for your trophy. Think of many different possible solutions and discuss them with your team.
- 3 PLAN:** Pick one idea you would like to design. Determine which materials you will use and how large your design will be keeping in mind **design constraints** - - the rules your design must follow.

Bowling Ball Trophy: Must be at least **10** inches tall

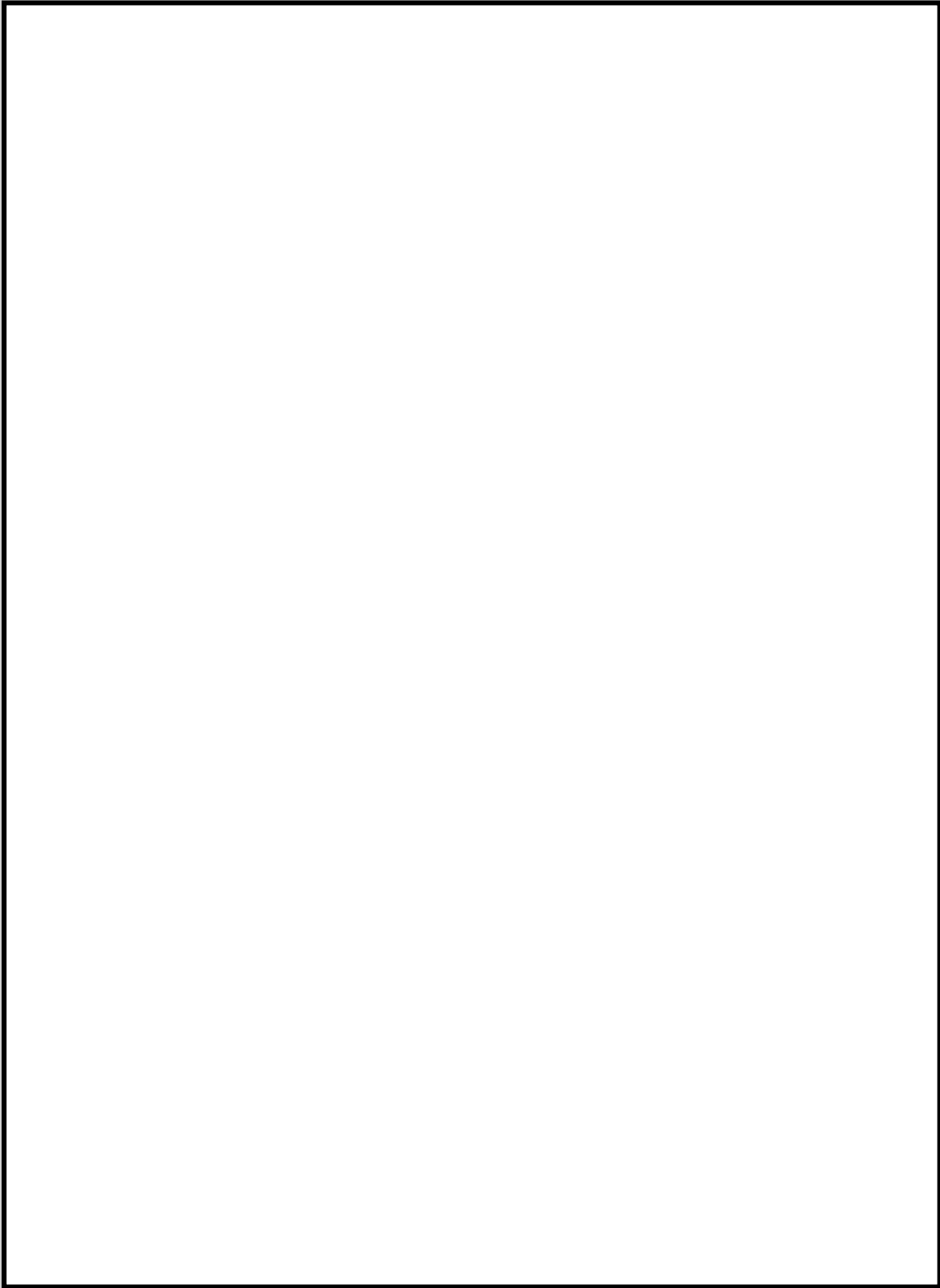
Soccer Ball Trophy: Must be at least **14** inches tall

Tennis Ball Trophy: Must be at least **18** inches tall

Sketch your design noting the materials from which you will build your design on the back of this sheet. Present your design and receive your materials!

- 4 CREATE:** Construct your design with the materials you have selected. Ask design challenges staff to help you test your design!
- 5 IMPROVE:** What could you do to make trophy stronger or taller? Make improvements to your design.

Draw Your Design Below!



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