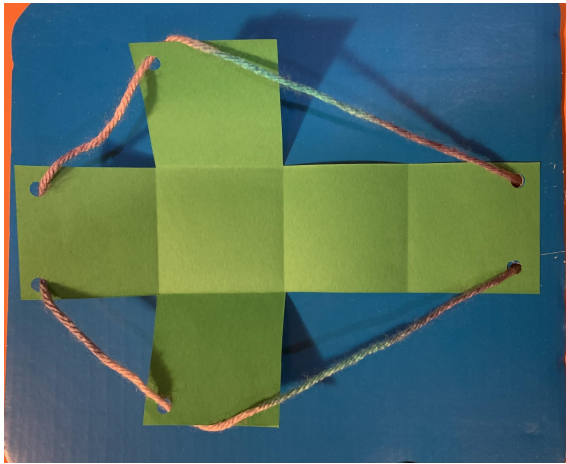


PULL-UP POLYHEDRA • CUBE

GRADES PREK+



MATERIALS

- Paper
- Scissors
- Yarn/string
- Child-friendly needle or single hole puncher
- Recycled cardboard



OBSERVE

Allow children to observe how the polyhedron transforms from a 2D net to a 3D cube.



CREATE

Use the materials from the list above and the tutorial video link below to create a pull-up polyhedron.



PLAY

After creating the pull-up polyhedron, have children pull the strings and observe the transformation.

KEY CONCEPTS

- **Geometry**
Comparing 2D with 3D shapes. Polyhedra, cube, faces, edges, and vertices.
- **Engineering**
Follow a set of instructions and consider how a design meets a desired purpose.
- **Art**
Vertical shapes communicate excitement and energy.

QUESTIONS TO ASK

- What shapes do you see in the flat net?
- How does the shape change when the strings are pulled?
- What shapes do you see in the cube?
- Have you seen something like this before?

THINGS TO NOTICE

- What words do children use to describe what they are seeing?
- What shapes does the child recognize?
- Do they make any connections with something they have seen before?
- How accurate are children in following instructions?

RESOURCES

- [Video Tutorial](#)

