

MATERIAL 2 • STEM CHALLENGE • GRADES 3-5

Build a Pumpkin Patch Clubhouse

A friendly haunted-house challenge — spooky decorations welcome, scary is optional, strong building is required.



The Challenge

Design and build a clubhouse for the Pumpkin Patch Crew. Your clubhouse must:

- Stand on its own for **30 seconds** without being held
- Be at least **20 cm tall** (about 8 inches)
- Have a **door a paper pumpkin character can fit through**
- Hold a **mini pumpkin (or a tennis ball)** on its roof for 10 seconds
- Include at least **one Halloween decoration** your team makes

You May Use

- Cardboard and card stock
- 20 craft sticks
- 10 straws or paper tubes
- Tape and a glue stick
- Scissors, ruler, crayons
- Construction paper for decorations

Rules

- Use only the materials above
- Plan before you build
- Everyone on the team gets a job
- If it falls, that is data — improve it
- Clean up your scraps when you finish

Build It in 5 Steps

1. **Ask (5 min):** Talk through the challenge. How will your clubhouse stand up and hold weight?
2. **Plan (10 min):** Sketch your design below and label the door, roof, and decoration.
3. **Build (20 min):** Build exactly what you planned first. Change the plan only as a team.
4. **Test (5 min):** Time the 30-second stand, measure the height, try the door, and test the roof.
5. **Improve (10 min):** Fix the weakest part, test again, and record what changed.

Our Sketch — label the door, roof, and decoration

Test	First Try	After Improving	What We Changed
Stands alone for 30 seconds?			
Height in cm			
Pumpkin fits through the door?			
Roof holds for 10 seconds?			

The hardest part was:

If we built it again, we would:
