# Westminster Abbey

# Learning





**N is for Nave**Roof building challenge

The nave ceiling is an incredible 31 metres high. With the development of the Gothic arch and the buttresses, churches could be built even taller than before allowing plenty of light into the building. Most importantly, the shape of the arch made sure that the weight of the heavy roof could be supported.

## Can you make a strong roof out of paper?

It's time to get competitive with your family. Who can build the strongest roof?

#### You will need:

- Scrap paper or newspaper
- Sellotape
- Two tables or chairs close together to act as the 'walls', with a six-inch gap in-between you can make it wider if you fancy a challenge!
- Small weights (could use things like pebbles or coins etc)

#### **Instructions:**

- 1) Get into two teams. Agree a time for how long you should be allowed to make your roof.
- 2) Collect your paper and Sellotape and start building a roof to stretch across the gap between the two chairs/tables. You are not allowed to test with weights on your roof in this time.
- 3) When the time is up, it's time to put your roofs to the test. Place them across the gap between your two chairs/tables.
- 4) Measure to see how many weights your roof can hold. If the weights are too heavy, try with penny coins. Whichever roof can hold the most weight is the winner!

### **Other Challenges:**

- Build a tall tower using whatever you have at home.
- If you've got any building blocks, see if you can build an arch over a gap between two surfaces



"I'm very impressed" said Livingstone the lion, "I wonder if your roof is strong enough to hold the weight of a lion – or even a pride of lions! What do you think?"

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