

Bridge building activity



We're building bridges which will make it easier and safer for people and wildlife to cross the road. We carefully design bridges to make sure that they are strong and work well for everyone that uses them. Now it's time for you to design and build your own bridge.

The challenge:

Build the strongest bridge possible only using the materials below. The bridge needs to be 30cm long. You can build one or you can work in teams and make different bridges to see who's is strongest. **Good luck building!**





1.

You will need:

- A4 sheets of paper
- Straws
- Spaghetti
- Pens or pencils
- Tape



2.

Rules:

1. Only use the materials listed.
2. You have **45 minutes to build**.
3. It can only be supported at both ends with nothing holding the bridge up in the middle.
4. It must be 30cm long.



3.

Top tips:

- **Good planning and design are important in bridge building.** Make sure you draw and plan out your bridge before you start building it!
- There are lots of different types of bridges. **Think about bridges you've seen when you design it.**
- **Each end of the bridge needs to be strong.** Think about how you can strengthen each end so it doesn't fall over.
- **Folding the paper in different ways can make the bridge stronger.** Try folding it to see what works best.



4.

Time to test:

After you've finished building your bridge you can test how strong it is. Try placing a small toy in the middle of the bridge. If the bridge stays strong, add another toy.

If you've built more than one bridge, place toys on each structure. **The bridge that can hold the most toys is the winner!**



5.

Thinking time:

This activity was about designing and building a strong structure. Now you've finished, think about how it went. Did your bridge work well? If it did, what was it that made it so strong? If it didn't work very well, **what would you do differently if you built it again?**