**Exploring the body**

**Exploring Support**

One of the functions of the skeleton is to provide support. In this activity you’re going to be finding out how a structure can support a load effectively.

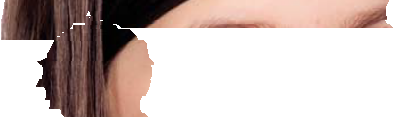
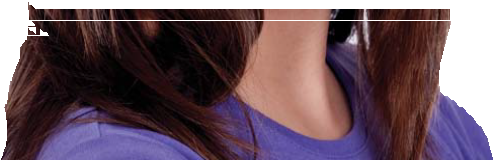
**Resources required**:

a tennis ball (or similar)

ten sheets of A4 paper (recycled is ﬁne)

a metre of sellotape

You will need to work in a small team. Your team will be provided with the resources listed above. These can be varied but should be the same for all teams.



**1. Your task is to design and construct a structure that will support the ball as high above the table top as possible. The structure should be stable and may not be fixed to the table.**

• What kind of structure do you think will work well?

• How can you use the materials to produce something strong?

• How can you make it stable?

**2. When you’ve made a structure, the class can then test and compare them.**

• Look at the structures that were more successful - what seemed to be true about them? What features did they have that worked well?

• Did they use tubes?

• Was the structure broader at the top where it supports the ball?

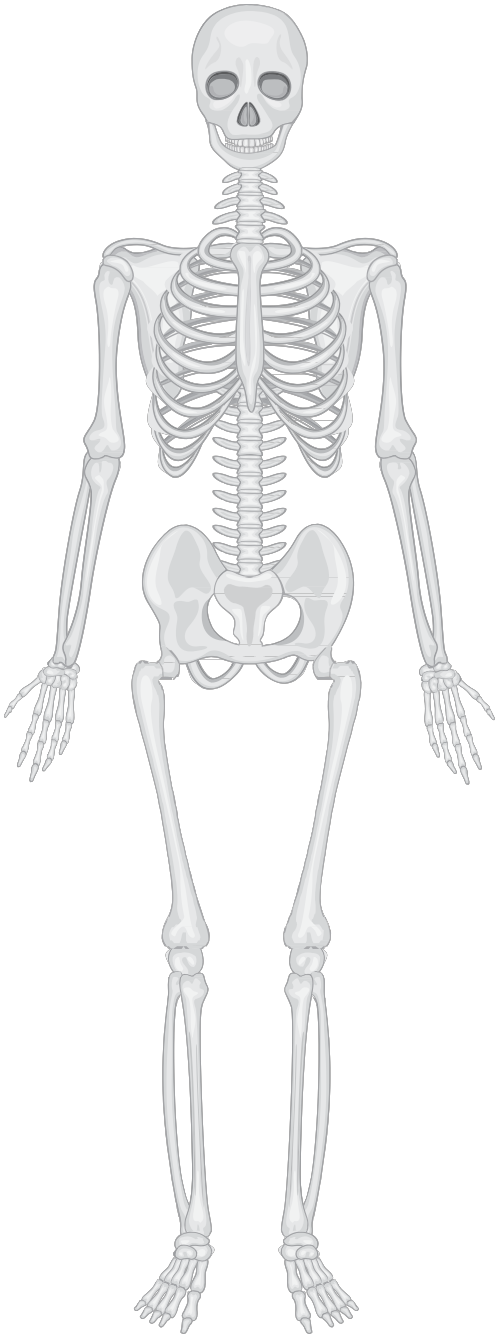
• How was it made stable?

**3. Now look at pictures of a skeleton and identify what makes bones such as legs, pelvis and backbone effective at support. Think about these features:**

• Tubular structure (such as the backbone) being light and strong

• Broader structure (such as pelvis and feet) providing stability

**The human skeleton**



? **Extension:**

Is building a structure like this a good way of seeing how a skeleton provides support?

• In which ways was your structure trying to do the same thing as a skeleton does in supporting a weight?

• In which ways was your structure not working as a skeleton does?