



## Element 1 – Structures & Uses of Materials

### What is a structure?

Structures are all around us – houses, churches, schools, bridges, tables, chairs, climbing frame and many more. Remember, they are basically something that has been built and can support itself on its base or foundations.

### Planning a structure

Before a structure is made/built, designers must think carefully about how it will stand up (even if it is able to stand up by itself, or if it needs support), what shape it needs to be, how will it be joined together and which materials will be best for the job.

### Uses of Materials:

**Metals:** There are so many different types of metals used in the world for so many different reasons: Cars, tin cans, bridges, keys, jewellery, money and many others. They each have different properties and the best for each 'item' is chosen.

**Plastics:** Just like metal, there are so many different types of plastics used in the world and you will see these everyday: Chairs, pens, toys, bottles, food packaging and many more. More or being chosen as they can be recycled and used again which is better for the environment.

**Buildings:** There are lots of different buildings and homes all around us and different materials are used to suit the building type. Have a look at the picture below and think about the materials that have been used and why:





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### **Element 1 – Closed Test**

- 1) Can you name 5 different types of structure?
- 2) What do you need to think about before building a structure?
- 3) Can you name three different objects that are made out of metal?
- 4) Why is using plastic that can be recycled a good thing?
- 5) What materials might be used in the building of a house?

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### **Element 2**

Can you make two different homes out of materials you have at home? The challenge here is to make each home out of different materials and write a sentence, or two, saying why you have chosen that material.

Don't forget to take a picture and send it into school for us to see.

