

# Glenfield Infant School Knowledge Organiser



## Year 2—Autumn 1

## DT

## Structures- Baby Bear's Chair

### What should I already know?

I have experimented with making stable structures with card, tape and glue. I have learned how to turn 2D nets into 3D structures. I have begun to evaluate designs and look for ways to improve them.

### Vocabulary

<b>shape</b>	A geometric figure such as a square, rectangle or triangle.
<b>stable</b>	Something that is firmly fixed and unlikely to move or change.
<b>structure</b>	Something that has been made, put together and can usually stand on its own.
<b>strong</b>	Something that is not easily broken.
<b>weak</b>	Something that is easily broken.
<b>stiff</b>	A material or object that does not bend.
<b>test</b>	To find out if something works as it should.
<b>design criteria</b>	A set of instructions for a project.

### 1. What does stability mean? What makes a structure stable?

Some shapes are more stable than others.

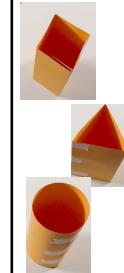


We tested these shapes:  
1. Sphere 2. Pyramid  
3. Cube

 Structures with wide, flat bases or legs are the most stable.

### 2. How can I make my structure strong?

Paper structures can be strengthened by:



Overlapping the paper to make it stiffer.  
Making them wider at the base.  
Making them lower.  
Not using shapes with corners.

 Materials can be manipulated to make stronger and stiffer structures.

### 3. How can I create a stable structure using paper, card and tape?



Baby bear needed a strong chair as Goldilocks broke his.

Paper, card and tape were used to create a strong chair structure.

 Structures can be linked or joined. The joints can be reinforced to make them stronger.

### 4. How can I create a stable structure using straws and pipe cleaners?



The pipe cleaner goes inside the straws to join them.



 Joints can be made using different materials.

### 5. How can I create a stable structure using recycled materials?



Is this a better chair for baby bear?



 Joints can be created in different ways. Using different materials.

### 6. How strong and stable is my structure?



Can you improve your chair?  
Is it strong and stable enough for baby bear?



 Strong means it will not easily break.

Stable means it will not topple over easily.