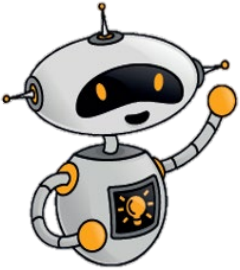


Rainbows Construction Interest Badge at Chelmsford Museum



Hi there. I'm Sparky from Chelmsford Museum.

Do you like making and building things? Chelmsford Museum is full of amazing things people have built. Come and visit and I'll show you around and help you earn your Construction Interest Badge.

Before you visit the museum:

Print out the activity sheets below. Cut the pages in half and staple them along the top to make your own 'Construction Interest Badge Booklet'. You will be able to draw and stick in pictures in your booklet as you do the activities and show your leaders and Rainbow friends everything you have done to earn this badge.

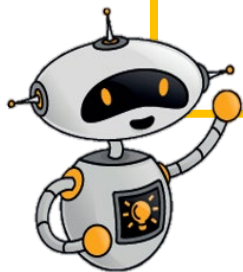
When you visit the museum:

Remember to bring your 'Construction Interest Badge' booklet and a pencil. You can borrow a **clipboard** and **Build it! box** for the construction challenge free from the Explorer Zone opposite the front door.

Sharing your stories and adventures:

You could ask the adult with you to take some photos as you do the different activities.

Come and have fun.



CONSTRUCTION INTEREST BADGE BOOKLET

Activity 1: Hunt for materials

The museum is full of materials people have used to build and make things with. Our Stone Age ancestors used natural materials like stone, wood and bone to make tools and buildings. Today we use lots of modern materials like plastic and glass.

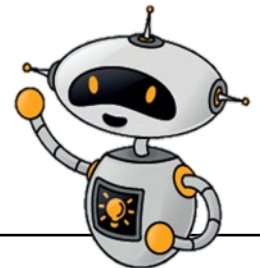
A-mazing materials challenge:

Look at the 'A-mazing materials maze' on the next page.

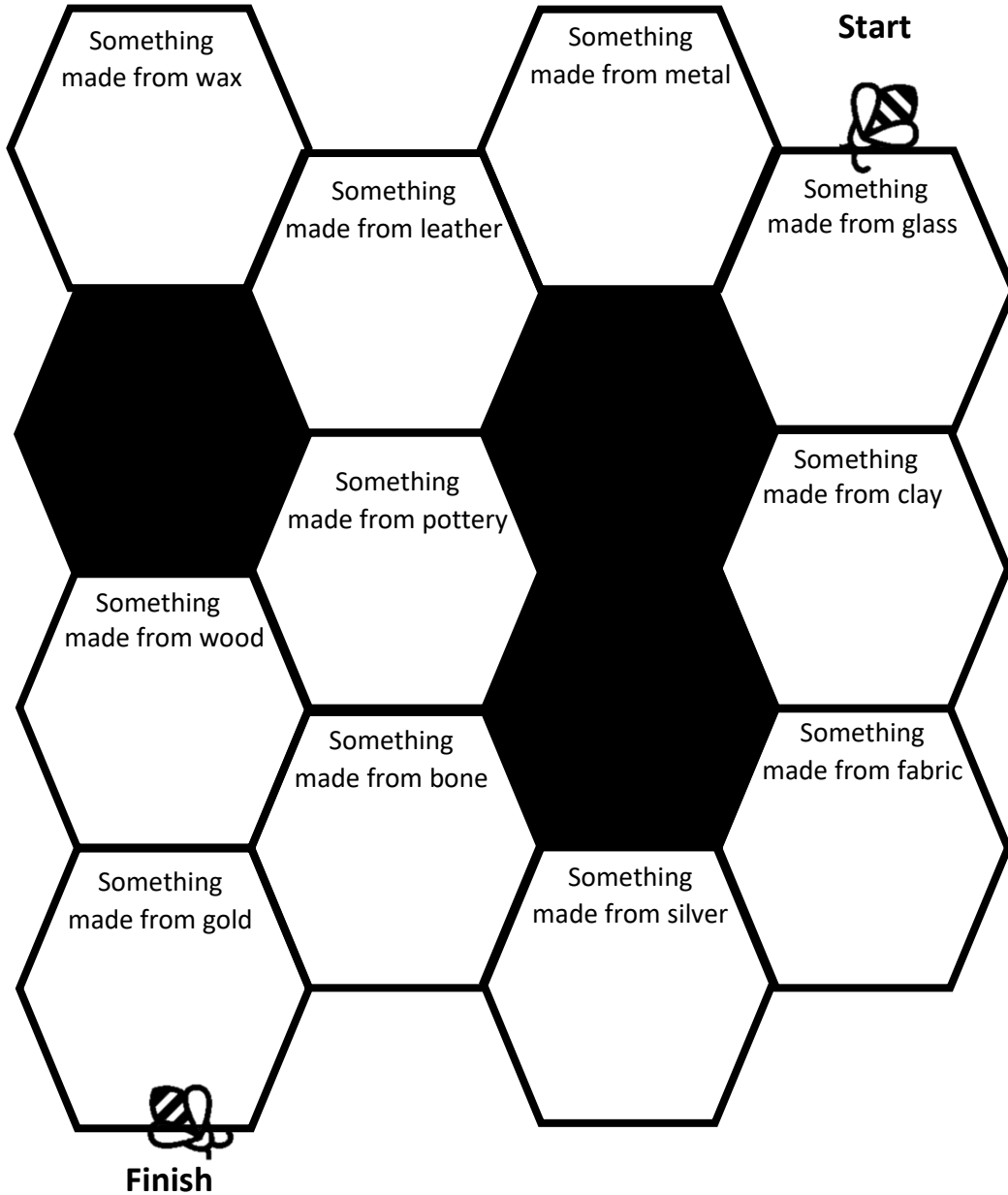
To cross the maze you will need to find objects in the museum made from different materials. As you find objects draw a picture of them or write what they are in the correct hexagon.

Can you make a chain from the 'start' to the 'finish'?

Watch out! You have to go around the black hexagons!



A-mazing materials challenge sheet



Activity 3: Strongest shapes



Can you find this object?
(look downstairs)

Can you see what it was used to bolt together?



Can you find this picture?

The tall posts in the picture were used to hold up an aerial wire to send radio signals. The aerial had to be high so the radio signal would travel further.

The posts were so tall they would bend in the wind. Look carefully for the wires from the post to the ground that stop the posts bending? Can you see the triangle shape they make?



Did you know?

Triangles are very strong shapes. Adding triangles to structures can make them stronger.

Building challenge:

Borrow the **'Build it!' box** from the Explorer Zone, opposite the front desk and find a quiet space to build.

What is the tallest free-standing tower you can build?

Remember to use triangles to make it strong.



Picture of my tower

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Activity 3: Be a town planner

150 years ago, in Victorian times, the Wells family and their servants lived in the old part of the museum building. It was called Oaklands House and the park was their garden!

Stand on the front lawn under the big fir tree.

Look carefully at the old photo of the Oaklands House and the museum building today.

Circle the differences you can you spot. What is still the same?



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Design time challenge

When the Wells family lived here the garden was designed with everything they needed. They had stables for their horses, a walled vegetable garden and flower beds and unusual trees to make the garden feel special.



Now it's your turn to redesign Oaklands park

What will you have in the park?

What will people need?

What would you like in the play areas?

What else will there be to do in the park?

Will there be a special place for wildlife?

Where will people park?

Draw your ideas on the next sheet, then try building a model to show some of your ideas.

Let your imagination go and have fun

Blank plan of the park

Pictures of my model

Pictures of my model