

# How do you build things like my classroom?



What are materials? Materials are important as they help us to make everyday objects.

During this Design Technology project, the children will explore everyday materials such as glass, wood, metal, stone, brick and plastic and know why different materials are useful for different things. The children will gain an understanding of where these materials come from such as wood from trees and metal from rock in the ground. Practical lessons will generate discussion and questioning about specific objects and the material, including how it is made, what it is made from, its features and its use in the object. By the end of the project, children will be able to identify and name what material an object is made of and why.



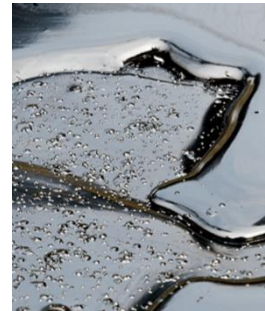
What would I use to build a house?  
What holds the bricks together?



Why can't I see through this glass?

They will understand how materials can be cut and shaped, but how do you cut or shape materials such as glass and metal? What can I make with plastic?

By asking scientific questions the children will be able to identify and describe materials using project related vocabulary such as hard or soft; stretchy or stiff; rough or smooth; opaque or transparent; bendy or rigid and waterproof or not waterproof. As the project progresses, the children will understand that the properties of a material determine its uses and choose the appropriate material for a specific design. For example, a transparent and waterproof material could be used for a windowpane. They will do this through scientific tests.



Within the project there will be lots of opportunity to work with these materials and become familiar with the processes that are needed to shape and join.

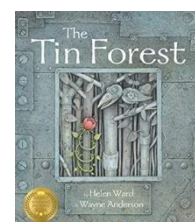
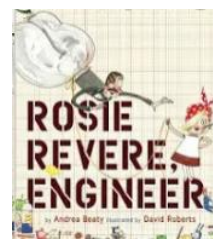
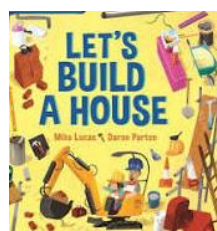
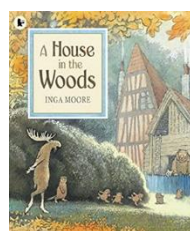
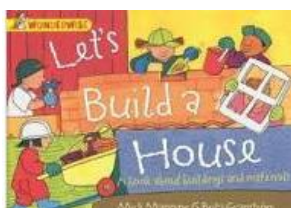


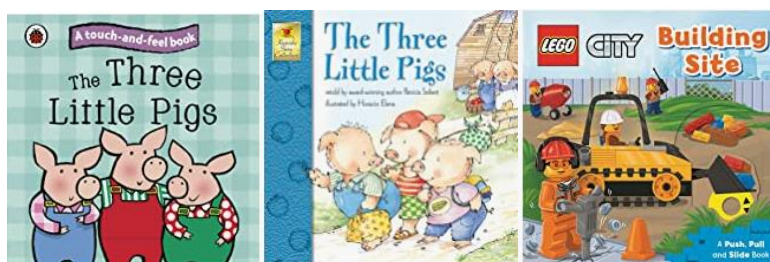
The children will plan, design and make a working structure of their own, selecting appropriate materials for the purpose and using saws, hammers, nails, screwdrivers, nut and bolts and glue to complete their project.



As always, we will immerse the children in the project's theme and the environment will inspire the children's imagination as they extend their knowledge and thinking in the workshop. The workshop will be equipped with different materials and tools, encouraging the children to test their understanding of materials and their properties.

In the book corner there will be a range of fiction and non-fiction books as well as our project stories:





Alongside Maths, Reading and Project Work, there will be opportunity for extra-curricular activities such as Music Therapy with Adrian, yoga, PE and Dance. Collaborative Friday will continue, providing opportunities for the children to develop their relationships with their "big friends" in Bats 2 and 3.

Nouns; stone, metal, plastic, glass, wood, brick, hammer, nails, screwdriver, join

Verbs; to make, to design, to plan, to change, to hammer, to join, to shape, to mould

Adjectives; hard, soft, rigid, stiff, bendy, rough, smooth, opaque, transparent,

Prepositions; in, on top, next to, inside, between

By the end of the project the children will have made a working structure, selecting the appropriate materials for its purpose.



At home you could support your child with this new project by:

Provide a range of resources and challenge your child to build a structure using the resources. Set challenges, such as 'How high can you build a tower?' or 'Which materials make the strongest bridge?' Take photographs of the structures so that we can then share with the class. Encourage your child to talk about their designs and describe the materials' properties.

Resources you could use: lollipop sticks, paper, pasta, toilet rolls, cereal boxes, foil, sticky tape, glue, scissors.

Take a look around your home. Can your child identify some of the materials we have been exploring at school? Talk to your child about why this material has been chosen. Go for a walk and look outside, identifying what structures are made from wood, plastic, glass, metal eg. guttering, tiles, greenhouses.

Encourage your child to build a den inside or outside, using questioning to prompt your child to explore how it can be made stronger, stiffer and more stable.

Visit an area where you know new houses are being built and talk about the different stages of building. Encourage questions about the materials chosen and why.

Visit the New Art Centre near Salisbury with its fantastic sculptures made from different materials <https://www.sculpture.uk.com/>

