#STEMGlasgow

Tangrams

Your challenge is to complete a series of tangrams. The same pieces are needed for each shape they just fit together differently.

This is a great maths activity for encouraging critical thinking, spatial awareness and problem solving.

I enjoy investigating objects and shapes and can sort, describe and be creative with them.
MTH 0-16a

I have had fun creating a range of symmetrical pictures and patterns using a range of media.
MTH 0-19a

I can explore and discuss how and why different shapes fit together and create a tiling pattern with them.
MTH 1-16b

I have explored symmetry in my own and the wider environment and can create and recognise symmetrical pictures, patterns and shapes.
MTH 1-19a

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Play Dough Elephants

Your challenge is to try and create an elephant out of play dough only using the commands ‘push’, ‘pull’ and ‘twist’.

Learners first develop an understanding of how forces can change the shape or motion of an object, considering both forces in contact with objects and those which act over a distance.

Through everyday experiences and play with a variety of toys and other objects, I can recognise simple types of forces and describe their effects.
SCN 0-07a

By investigating forces on toys and other objects, I can predict the effect on the shape or motion of objects.
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Tinfoil Towers

Your challenge is to use tinfoil to try and build the tallest free standing tower that you can.

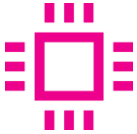
Many people think that technology must have a plug or run on electricity, however this is not always case. Technology is simply the practical application of science.

Within real and imaginary settings, I am developing my practical skills as I select and work with a range of materials, tools and software. **TCH 0-12a**

Through discovery, natural curiosity and imagination, I explore ways to construct models or solve problems. **TCH 0-14a**

I explore materials, tools and software to discover what they can do and how I can use them to help solve problems and construct 3D objects which may have moving parts. **TCH 1-12a**

Through discovery and imagination, I can develop and use problem-solving strategies to construct models. **TCH 1-14a / TCH 2-14a**



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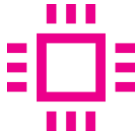

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Paper Helicopters

Your engineering task is to make a paper helicopter. You'll be given a few resources and will need to investigate what you have and try and make a working model.

Engineering is all about understanding how things work and creating your own models.

I explore materials, tools and software to discover what they can do and how I can use them to help solve problems and construct 3D objects which may have moving parts. **TCH 1-12a**

Having evaluated my work, I can adapt and improve, where appropriate, through trial and error or by using feedback. **TCH 1-14b / TCH 2-14b**

By applying my knowledge and skills of science and mathematics, I can engineer 3D objects which demonstrate strengthening, energy transfer and movement. **TCH 2-12a / TCH 3-12a**

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