

STEM from Home Pack 8

Science

Science forms the world around us, allowing our lives to advance and quality of life to improve. Biology allows us to learn about living organisms such as animals, plants and even humans! Chemistry tells us what things are and how they work, why does a cake rise in the oven? How does my stomach digest food? Chemistry helps to answer these questions. Physics looks at forces and how and why things move. Physicists will help to design rollercoasters, making sure that they are safe for people to ride.

This week, you will test your brain with the online game 'Memory', put your chemistry skills into action by cleaning coins and learn the meaning behind important scientific words in the Big Science Crossword!



This week's Technical Activity - Memory!

Introduction

In this project, you will create a memory game in which you have to memorise and repeat a random sequence of colours! [Access this activity](#).

What you will need

A computer capable of running Scratch and Scratch 3 software (either [online](#) or [offline](#)).

What you will learn

In this activity, you will learn how to add sound to your Scratch project, how to create and use lists to store data and how to create and use custom blocks for repeating code.



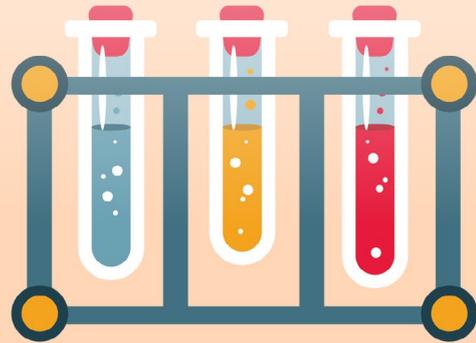
Week 8 Activity - Coin Cleaning

Coins change colour over time, becoming a darker brown and sometimes even green, but why is this?

In this activity, you will learn why coins change colour as they age and how to restore them to the former colour, making them much shinier!

Access the [guidelines for this activity](#).

Ask your parent/Guardian to upload pictures of your STEM creations to [Twitter](#), [LinkedIn](#) or [Facebook](#) using [#STEMfromHome](#) and [#ExperienceCGI](#), remember to tag us!



This week's game - The Big Science Crossword

This crossword teaches children all about the fascinating world of science!

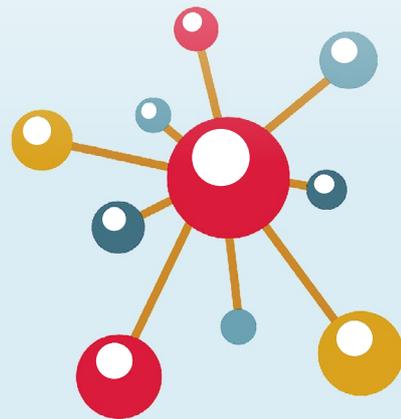
From biology to baking, the crossword teaches children some key science terms and their meaning.

What is a crossword?

A crossword is a puzzle in which you have to use clues to fill in the missing words across and down.

Use books or the internet to help you!

Access the [template for this activity](#).



Bonus Activity - Flower Generator

Introduction

You will create hundreds of flowers of different sizes, shapes, and colours. You can export the flower pictures and use them as wallpapers on your phone or computer, or as backdrops in other Scratch projects.

[Access this activity](#).

What you will need

A computer capable of running Scratch and Scratch 3 software (either [online](#) or [offline](#)).

What you will need

You will learn how to stamp a sprite, how to make your own Scratch blocks, how to use block inputs and how to create random numbers.

For more information or additional support with STEM activities when working remotely, contact enquiry.uk@cgi.com

The materials in the program were made available by the [Raspberry Pi organisation](#). The program uses Scratch 3. Use of the materials in this program is licensed under the Creative Commons Attribution-Share Alike 4.0 International Public License. You should use the materials in compliance with the License. A copy of the License is available [here](#). The materials in the package are shared with you on an "as is" basis, without warranties or conditions of any kind, either express or implied. CGI accepts no responsibility nor liability for damages, costs or expenses of any kind incurred or resulting from the use of the materials in this program.

Thank you for reading this note. We hope your children enjoy our STEM at Home Programme.