

# 10 ways to get involved with Climate and STEM at Home



Explore the Planets Diversity



Take Part in a Science Project



Support Nature



Innovate and Invent



Join an e-STEM Event



Learn or Improve Your Coding Skills.



Find Out More about Climate Change



Join The POD



Explore the FREE resources on STEM Learning



Discover Chemistry at Home



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## 1. Explore the Planets Diversity

### [Diverse Planet Activity Pack](#)

Designed for British Science week 2020, packed full of great activities for all ages. Separate packs for early years, primary and secondary age pupils.

### [Planet Earth](#)

Watch one of the amazing documentaries narrated by Sir David Attenborough

## 2. Take Part in a Science Project

### [Spotting spider monkeys](#)

British Science Week is calling on the public to help scientists tackle deforestation and habitat loss, from the comfort of their own sofa. In previous years, an armchair army tagged over 1.5 million pieces of plastics, spotted penguins and transcribed weather reports – all to save researchers 1000's of hours of time. This year's chosen citizen science project is encouraging members of the public to tag footage of endangered and vulnerable spider monkeys in Central America, which has been captured using drone-mounted thermal-infrared cameras.

### [Cricket Tales](#)

Citizen science project funded by the Natural Environment Research Council

This is the first long-term study on the behaviour of wild insects, run by the Wild Crickets research group at the University of Exeter. The results will tell us whether some crickets are more active in the morning, while others are more active at night. This tells us how flexible their lifestyles are, and how insects might cope as our climate changes.

### [Natures Calendar](#)

Want something a little more active, Natures Calendar by the Woodlands trust asks individuals to monitor the changes in wildlife near you contributing to a long biological record that dates back as far as 1736.

### [Wildlife Trust](#)

Or check out these suggestions from the Wildlife trust. Many can be done without leaving the garden.

## 3. Support Nature

### [Cornwall Wildlife Trust](#)

The wildlife Trust have put together lots of ways you can support wildlife at home

Don't have a garden?

### [Create a container garden](#)

Create a container garden. Recycled pots and containers are a great way of introducing wildlife. They are also perfect for small gardens or spaces like window ledges or roofs. Herbs, in particular, make good container plants and attract lots of wildlife, as well as being useful in the kitchen

## 4. Innovate and invent

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## [Kids Invent Stuff](#)

Kids Invent Stuff is the YouTube channel where 4-11 year olds have the chance to get their invention ideas built by real engineers. Kids are encouraged to submit their ideas for inventions to solve a different challenge each month. Ideas can be submitted as drawings or videos uploaded below and each month one idea is built and tested on camera, with hilarious consequences.

## [Bright Ideas Challenge](#)

What will cities look like in 2050? How will they be powered to be vibrant, healthy and clean places to live? That's the question put to students aged 11-14 by The Bright Ideas Challenge, Shell's cross-curricular schools' competition. Closing date for submissions- Friday 24<sup>th</sup> April 2020

## 5. Join an e-STEM event

### [Stemettes](#)

Stemettes are running online session to keep young people inspired, motivated and learning. Each week they will run 3 events across Zoom, Google Hangouts and Instagram.

## 6. Learn or Improve Your Coding Skills

### [Raspberry pi](#)

The Raspberry Pi website offers lots of coding projects. Some require a Micro: bit or Raspberry Pi but many just use software such as Scratch that can be loaded to a home computer or you can use the online version. Project range from beginner upwards.

### [Scratch Sushi](#)

A great starter project is to create a cool sushi game. You will need to down load the programming tool scratch or use the online version. The instructions below will show you how.

### [Scratch](#)

Scratch is a programming language which is easy to use and designed for beginners upwards. You can use Scratch to create interactive stories, animations and games. Scratch for Educators or Scratch for parents provides tutorials and coding cards which are step by step instructors for a variety of projects.

## 7. Find Out More about Climate Change

### [Thoughtbox – For Kids](#)

Thoughtbox have created a range of resources for young people to use in the classroom- many suitable for home learning.

### **Future Learn Online Courses – Climate Change – For Adults**

Climate change is a big issue which many of us are trying to navigate. Future learn alongside the University Exeter have developed some online course to deepen our understanding.

### [Climate Change: The Science:](#)

Learn about the science of climate change, the risks it poses and how human activity is changing our world.

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## [The Challenge of Global Water Security:](#)

An introduction to the challenges of water security on a local and global scale.

## 5. Join the POD

### [The Pod](#)

The Pod is an award-winning schools programme with curriculum-linked teaching resources focused around energy waste and biodiversity. There is a teacher and students' area which has lots of useful information, activities, movies and games for primary and secondary students.

### [Power the UK Game](#)

The "Power the UK game" is a great way to learn how we can use a variety of different energy sources to generate enough electricity to power all of the UK while ensuring CO2 stays low. The Pod also offer supplementary activities such as the Power the UK homework sheet and poster.

## 9. Explore the FREE resources on STEM Learning

### [Home Learning](#)

STEM learning are offering free resources for home learning. Subject experts have put together a selection of resources- completely free. In addition, subject experts are available 8.30 to 4.30 weekdays via webchat.

### [Family Activities](#)

They have also create a range family activities: Fun, hands on activities for young people of all ages to engage in STEM (Science, Technology, Engineering and Maths).

### [STEM CDP for teachers](#)

supported online courses. You can access real classroom footage, discuss lessons with colleagues from around the world, and learn from leading experts in their respective fields

### [Space resources to inspire](#)

ESERO-UK, the UK space education office, provides resources and support to enhance the teaching of science, technology, engineering and mathematics (STEM) using space as a context.

## 10. Discover Chemistry at Home

### [Royal Society of Chemistry](#)

The Chemistry in your cupboard resource series describes the chemistry that underlies nine well-known, household products. Learn about a range of real-life contexts for these chemical ideas through written material, and questions to encourage learning and test understanding

### [RSC's 'Chemistry in your cupboard' YouTube Series](#)

This YouTube series by RSC's Public Engagement Officer, Hassun El Zafar provides step by tutorials showing you how to make everything from Lava Lamps to Ice Cream!

### [Science Museum](#)

The science museum has produced this resource of easy experiments using common ingredients found at home. Please note that adult supervision required.