



Activity Content Planning Guide

Virtual Crawley STEMfest available via the STEM Hub website from Thursday 12th - Saturday 21st November. No password required. Age groups are a guide only.

Access Event Here

Pre-recorded STEM Shows

The Splendiferious Science of Roald Dahl – Most suitable for primary and families

"If you've ever wondered what's needed to get James' peach to fly, whether George is a genius scientist and how topsy turvy the Twits could really be, then this is the splendiferous science show for you. Join science presenter Jon Chase as he delves into the whoopsy waffling worlds of Roald Dahl."

Science Rapper's guide to the solar system – Suitable for all ages and families

"A tour of the solar system with a difference! Join science presenter Jon Chase as he explains just how extreme our Solar system can be, through the use of science-based raps that you can join in with at school or at home! He'll be answering questions like: How big is the solar system? How puny is Pluto? How cold is a crater? What's the smelliest planet?"

No resources required

Careers Fair

YR7-YR12 (45 mins approx.)

Take a virtual walk around the Career Show! Here, you will learn about some of the influential companies in the South East and hear about the important and exciting jobs our STEM professionals undertake. Find the Did you know? facts, watch films about different careers and see how far you can get in our scavenger hunt!

We recommend you download the scavenger hunt sheet and make notes of careers of interest

What's My Job?

YR6-YR12 (20 mins per room)

Guess the STEM Ambassador's role from the 3 items that are shown. STEM Ambassadors will show 3 items related to their work and provide some hints about what they do every day. Can you guess their job? Use the downloadable sheet and find the answers to the questions.

There is a worksheet to help you identify the STEM Ambassadors role. It can be found by clicking the resources link, top right of the screen

Desert Island Risk

YR6-YR12 (30 mins)

Students watch a selection of employers describing their skills and tools used in their job. Then decide who they want in their desert island team and complete a downloadable worksheet to explain their choices.

We recommend you download the desert Island risk worksheet and make notes during video clips

STEM Enrichment Activities/Workshops

Atkins Missions to Mars KS1-3

Journey to Mars (35 minutes)

Land on Mars (35 minutes)

Hotel on Mars (35 minutes)

Design and engineer the way for Zlod to journey, land and live on Mars!

Includes intro video and x3 downloadable PDF worksheets

Resources:

Household Items: Cereal boxes, tin foil, plastic bottles, yoghurt pots, lollipop sticks, sponges, bubble wrap, plastic bottles, straws, plastic bags, yoghurt pots

Crafting supplies: cardboard, coloured paper, glue and sticky tape, balloons, pipe cleaners, glitter, crayons, paint, fabric, foam, ruler, velcro, elastic bands

NB: these are suggested items

CGG Edible Geology Workshop KS 3

60 Minutes

CGG introduces a variety of geology concepts through the medium of cakes, sweets and tasty treats!

Includes Intro video and Edible Geology worksheet

Resources:

Porosity Sundae - various tasty toppings (nuts, mini mallows, choc peanuts, raspberries, Maltesers), chocolate sauce (melted choc) and whipped cream

Conglomerate Chocolate Slice - cherries, nuts, Maltesers, choc raisins., mini mallows, biscuits (digestives), butter, soft cheese, chocolate bar, mixing bowl, way to heat choc and butter in bain-marie, bread tin, fridge

Metamorphic Fudge - various types of choc chips, cranberries, walnuts, butter, condensed milk, slow cooker, Pyrex

Sedimentary Fossil Jelly - Different jelly flavours, toy dinosaurs, jelly sweets, large glass bowl, fridge

Edible Fossils and Footprints- biscuit dough, toy dinosaurs, oven for baking

Folding Pancakes - pancake batter, food colouring, frying pan and heat to cook, 2 dinner plates

Volcano Cake - 2 plain cakes, fondant icing, choc, food colouring

CGG Data Science Workshop KS4-5

52 Minutes

Follow Zee as she explains how you can use data science to track earthquakes in Japan

Includes activity video, Japan Earthquakes.csv file, data science workshop full notebook (be sure to save the notebook and .csv file in your google drive beforehand)

Resources:

Access to a laptop or computer with internet

NB: The entire activity is run through the video. No teacher participation required

CGG Environmental Science workshop KS 4

35 minutes

Workshop video led by Marco from CGG about our environment and greenhouse gasses

No resources required

Institute of Acoustics Structure-borne Noise Activity KS4 - 5

45 Minutes

Includes Intro video and activity worksheet

Resources:

Sponge, Tupperware container, noise source (eg. metal music maker, mini speaker)

Crawley College Hospitality Workshop KS 4

40 Minutes

Learn about density, volume and mass with different food items

Includes Intro video and activity worksheet

Resources:

A range of liquids from the kitchen (cream, milk, hot sauce, oil, syrupjuice etc.), food colouring mixed with water

Crawley College Carpentry Workshop KS4-5

40 Minutes

Use different parts of mathematics to build a sturdy staircase

Includes Intro video and activity worksheet

Resources:

Scientific calculator, paper and pen

Network Rail STEM Activity Pack

KS1 - 5

A range of times

A variety of STEM workshops accessible via links in workbook

Downloadable pdf

IMechE Cork Launcher KS 2 - 3

60 minutes

Create a launcher to and your very own version of 10 pin bowling

Includes Intro video and activity worksheet

Resources

Elastic bands, masking tape, pen/pencil, paper cups (optional), cardboard tube (Pringle container), 500ml bottle, foil (optional), paper, scissors

IMechE Flying Dragon KS 4 - 5

60 minutes

Use engineering, design and art to create your very own mechanical flying dragon

Includes Intro video and activity worksheet

Resources:

3mm crafting wire, cardboard box, needle nose pliers, blue tac, hole puncher, zip ties, glue, scissors, cardboard, coloured card, glue gun

IMechE Mechanical Hand KS4 - 5

60 minutes

Design and build your own mechanical hand

Includes Intro video and activity worksheet

Resources

ruler, string, pen/pencil, elastic 25cm, straws, cardboard, zip ties, scissors, cardboard, glue gun

IMechE Tower Activity KS2 - 3

60 minutes

Create a class or personal challenge to build the tallest and strongest tower

Includes Intro video and activity worksheet

Resources

Elastic bands, bulldog clips, lollypop sticks, cotton reels, blue tac, wooden dowels, straws, clothes peg