

SEW + GLOW KIT

DESIGN BADGES
THAT LIGHT UP WITH
ELECTRO THREAD

TECH
WILL
SAVE
US

WORKSHOP GUIDE

Explore Sew + Glow through this series of progressive 50 minute sessions using the Tech Will Save Us online MAKE platform.

01 : HISTORY OF TECH

02 : THINGS THAT USE ELECTRICITY

03 : FIRST CIRCUIT

04 : FIRST DESIGN (TEMPLATE)

05 : NEW SEWING SKILLS

06 : DESIGN A CLUB PATCH - IDEAS

07 : CLUB PATCH - PLAN & STITCH

08 : SEW THE FINAL DESIGN

09 : GROUP SHARE & REVIEW

Meets UK Statutory Curriculum:

YEAR 4 Electricity
KS2 Design & Technology

8+



SESSION OVERVIEW



01: HISTORY OF TECH

Explore different technological inventions of the 20th/21st century. Understand how technology is changing at a fast rate.

02: THINGS THAT USE ELECTRICITY

Explore different electrical sources. Understand the difference between mains and battery power. Identify common appliances that run on electricity.

03: FIRST CIRCUIT

Explore the Sew + Glow components. Understand how to put them together. Light up your first circuit.

04: FIRST DESIGN (WITH TEMPLATE)

Explore badge design using templates. Understand how to turn templates into stitchable designs. Stitch your own badge design.

05: NEW SEWING SKILLS

Explore Different stitching styles. Understand how they can produce different effects and ways of fixing. Try out the new skills on a blank badge.

06: DESIGN A CLUB PATCH - DESIGN IDEAS

Explore the badge design process. Understand that having more than 1 idea to choose from is good. Create 4 designs and choose 1 to make.

07: PLAN & STITCH

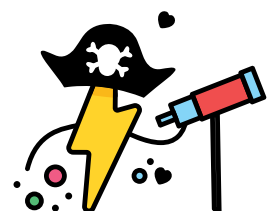
Explore how to bring an idea to life. Understand how to stitch a circuit that will work. Create a pattern template and sewing circuit plan.

08: SEW THE FINAL DESIGN

Select your own materials to sew your design. Understand how to use your plan to complete your project using the kit. Sew your final design.

09: GROUP SHARE & REVIEW

Share your work with others. Understand how to give and receive feedback. Have a group share.



This collection of 50 minute plans uses Makes from the Tech Will Save Us archive. It aims to progress Makers through making with Sew & Glow. They are by no means exhaustive and deviation in response to your groups interests is encouraged!

Makes

The sessions refer to Makes, which are online step by step tutorials on the Tech Will Save Us Make platform. Click on the images to access them directly. We are constantly adding new Makes to the online archive, all of which are free to use. There are loads more online than are used here, and these are great extension or alternative activities.

If there is a Make that doesn't exist that you think should, let us know. If you want it, others probably do too.

make.techwillsaveus.com

Make Account

All Makers can set up their own free Make account to help them track their making progress.

Resources

Every session requires that Makers have access to:

- Clear workspace
- Sew and Glow Kit
- a shared tablet to follow the Makes

Additional resources needed are listed at the bottom of each session.

KEEP THE SEW & GLOW BOXES,

they can be used to store students work between session!

Creativity

Every Make has the potential to be unique and we aim to provide space for Makers to explore their creativity. We celebrate risk taking and failure as much as success.

When things go wrong...

We embrace the fact that Making can be as frustrating as it is rewarding, and we hope this is something you can communicate to your Makers too. Making mistakes is a critical part of how we learn, and often allow that 'Ureka' moment to happen. Allow the physical and emotional space to make these mistakes.

Cross Curriculum

The very nature of these sessions means that they encompass STEAM through coding, maths, design, physics and cardboard engineering.

Sharing

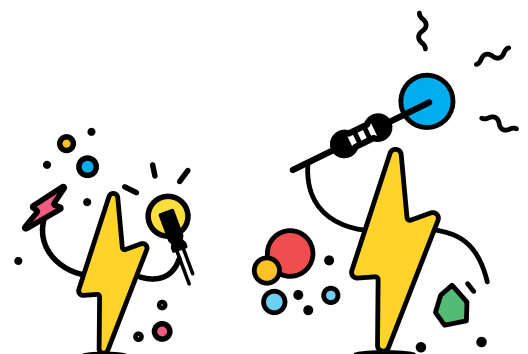
Celebrate your Makers work by sharing with your community.

We always love seeing what people Make, so why not send us a photo of your finished projects for us to share online with our own global maker community at:

make@techwillsaveus.com

Enjoy

Making is fun!





Design & Technology Key Stage 2

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world

Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]

- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]

- apply their understanding of computing to program, monitor and control their products

Science

Electricity (Lower KS2)

- identify common appliances that run on electricity
- construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery
- recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
- recognise some common conductors and insulators, and associate metals with being good conductors.

Electricity (Upper KS2)

- associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
- use recognised symbols when representing a simple circuit in a diagram.

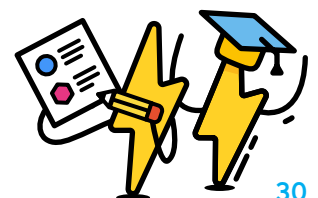
*These areas are not covered within this scheme of work

Art & Design Key stage 2

Pupils should be taught to

- develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design.
- to create sketch books to record their observations and use them to review and revisit ideas
- to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]
- about great artists, architects and designers in history

*These areas are not covered within this scheme of work





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