

The Wonderstruck

STEM in the **BOX**

Loudspeaker Workshop

What happens?

You build your very own, fully functional loudspeaker from an electric motor and learn a bit about sound and vibration along the way.

Who's it for?

KS2 all the way to adult!

How does this work?

We send you a box filled with all of the bits you need to build 30 loudspeakers plus pdf instruction sheets, a Powerpoint showing how to build the loudspeakers and covering the basic science. There are also teacher notes explaining how to run the workshop.

What don't we provide?

You'll need to provide basic stuff like scissors and tape. You'll also need to provide a selection of materials like yoghurt pots, plastic bottles and cereal boxes for speaker construction. Exact details of what you need to provide are in the teacher notes.

Different Kit Versions

Basic

All the bits you need to build 30 electric motor loudspeakers.

Super

As the basic version PLUS all the bits for 30 simple magnet and coil speakers as well.

Super Smashing

As the Super version PLUS a suitable stereo for testing your speakers and a sound meter!



'I didn't realise that loudspeakers were that easy to make. I was surprised how loud mine actually was!'

KS3 Student

Workshop format

The workshop starts with an introduction which covers the necessary science. This is included in the Powerpoint file accompanying the workshop. We can also organise a live intro via Zoom if you prefer. Participants can then build, test and modify their loudspeakers and you can even end with a competition if you like.

The science

The STEM topics covered in this workshop are:

- Sound & vibration
- Resonance (older/more able groups)
- Sound level and decibels (older/more able groups)

What's the cost?

Each kit contains parts for a whole class of 30 students!

Basic Loudspeaker STEMintheBOX kit £70.00 plus VAT

Super Loudspeaker STEMintheBOX kit £95.00 plus VAT

Super Smashing Loudspeaker STEMintheBOX kit £195.00 plus VAT

Discounts are available for additional boxes.

Duration

Exact workshop duration depends on exactly how you decide to run things and how many participants you have.

For a workshop with 30 participants we would normally allow 90 minutes.



WONDERSTRUCK
SCIENCE ON FIRE

www.wonderstruck.co.uk

T: 0845 5193 325

E: enquiries@wonderstruck.co.uk

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Wonderstruck Ltd. Brandize Hill Farm, Petrockstowe, Devon. EX20 3HW.
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