

Diksha Moolchandani

Senior Research Scientist
Computer Architecture & Hardware Design

30-60
minutes

Image source

Starters



5-10
mins

Diksha Moolchandani is helping make the technology of our phones, computers and other devices better for the environment. Her research into multicore processors resulted in improving their efficiency by 17%. She also used game theory and game ideas to make drones fly in smarter, energy-saving paths.

Read this **information** – do you understand the difference between hardware and software?

What is a computer system? – Summary

A computer system comprises hardware (the physical parts) and software (the programs that tell it what to do).

Hardware can be inside or outside the computer, connected by wires or wireless. Different computer systems include laptops, tablets, and smartphones, each with unique features like touchscreens or built-in keyboards. Hardware in a computer system can either input information, like a keyboard or mouse, or output information, like a monitor or speakers.

Questions on Technology

- 1** How could creating more sustainable tech, like phones and laptops, make a lasting difference for our planet?
- 2** Have you ever imagined creating the phones of tomorrow? What incredible features would you design?
- 3** If you could help design a phone for the future, what amazing features would you add?



Your next adventure starts here! Meet inspiring role models like Diksha at a Stemettes Event.

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Main Course



20 mins 1 activity
40 mins 2 activities

Make

Design and create a model of an energy-efficient gadget.

You could choose a phone, computer, or anything you like! Make sure you use recyclable materials.

Ingredients:

- Paper
- Colouring pencils
- Glue or tape
- recyclable materials (e.g. cardboard, plastic bottles)

Explore

Talk about why it's important to conserve energy in your lives. Create **Energy-Saving Plans** to save energy at home or school.

For this challenge, you can draw or write about the actions you can take to save energy and have a look on the internet for ideas. When you're done, display the posters at your unit.

Ingredients:

- Paper
- Internet access

Dessert



5
mins

Show and Tell

Spread the fun and excitement by sharing the challenges you've been exploring with your friends and family.

Share

We would love to see how you're doing with the challenges. Remember to tag us on social media and use the hashtag **#GGSWExStemettes**