DEVELOP SKILLS FOR LIFE THROUGH STEM WITH POWER UP

skillsupply
LEARNING THROUGH EXPERIENCE

Sizewell C
POWER UP

HOW IT WORKS

LEARN THROUGH FOUR THEMES

01 **DRONE CODING & ENGINEERING**

02 **SPHERO CODING**

03 **CRUMBLE CODING & ENGINEERING**

04 **PNEUMATICS & HYDRAULIC ENGINEERING**

CPD FOR TEACHERS

After the workshop, we will show teachers the resources we are providing and how to use them.

THIS IS A FULLY SUPPORTED PROGRAMME FROM SIZEWELL C!

YOUR SCHOOL WILL RECEIVE...

- ✓ at least four different workshop days of in-school activity.
- ✓ one day per term for 30 students in Year 7 or 8.
- ✓ same cohort of students each term.

FOUR FOLLOW-ON ACTIVITIES

The school will receive a box of materials and all the resources for another four follow-on activities based on a similar theme to the workshop - this will either be to leave with the school or a lend box for the term. These activities could be shared with other classes, or a STEM club, for example.

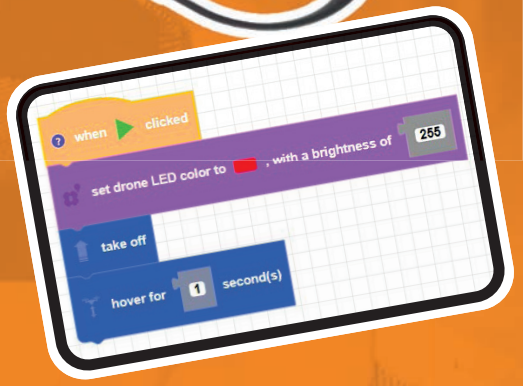
CELEBRATE AT SIZEWELL C

Each school will be invited to a celebration where pupils can:

- ✓ show off their makes and achievements.
- ✓ take part in additional STEM activities.
- ✓ have a look around Sizewell C and hear from the employees.
- ✓ find out what the next workshops will be!

DRONE CODING

- A half-day of overcoming challenges by coding drones and learning how the use of drones is linked to Sizewell C.
- A half-day learning engineering habits and building structures related to Sizewell C.
- The follow-on activities for this session include materials and CPD training to build bridges, pylons, towers and tetrahedrons.



SPHERO CODING

- A full-day workshop of learning how to code these amazing Sphero Robots around our Sizewell C Challenges.
- The follow-on activities include a set of Sphero Bolts and tablets to loan for one term.
- Resources and CPD to run sessions to code maze navigation, make and race ‘junk’ earthmovers, sense the environment and develop driving skills.

CRUMBLE CODING

- A full-day workshop on learning how to wire the Crumble Microcontroller to your engineering creations, then bring them to life with code.
- The follow-on activities include a class set of Crumble Kit, CPD and teacher access to our online Crumble coding course, for one term.
- The activities include learning how to code and engineer a buggy, a sonic sensor servo barrier and an anti-theft device.

PNEUMATIC & HYDRAULIC ENGINEERING

- A full-day workshop of engineering using TechCard and learning the science and forces behind their creations.
- The follow-on activities include all the resources to make a TechCard Winch, Pneumatic Hoist, Marble Run and Balloon Car.

CURRICULUM LINKS

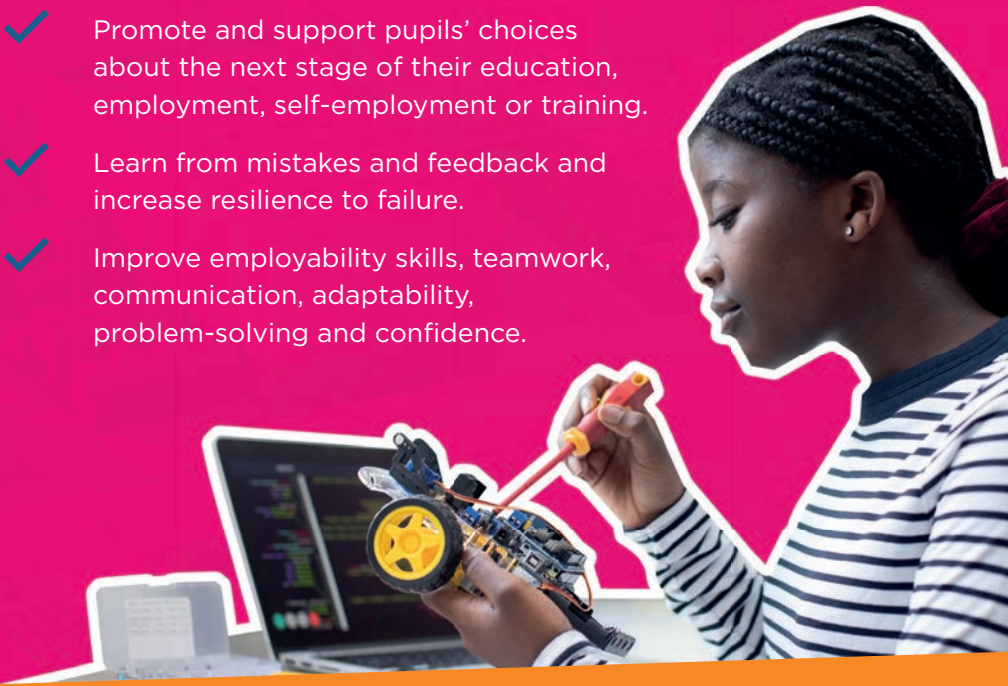
- **Computing:** Improve digital literacy. Prepare pupils for the increasingly technological world. Analyse problems in computational terms, use programming to understand abstraction, logic, and algorithms, design and develop and solve problems.
- **Maths:** Understand properties of 3D shapes, angles, and geometrical constructs, collecting and analysing data to apply their maths understanding and skills across the curriculum. To be able to reason mathematically and solve problems.
- **D&T:** Investigate new technologies, apply computing and use electronics to embed intelligence in products that respond to inputs e.g. sensors and control outputs, actuators, using programmable components and microcontrollers.
- **Literacy:** Use accurate and appropriate technical language to be able to discuss, elaborate and explain ideas so pupils can participate in debate.
- **Science:** Use technological applications of science; test hypotheses, make measurements and records. Understand the impact of STEM on everyday life. Be equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

GATSBY BENCHMARKS

- **Benchmark 2: Learn from career and labour market information.** Develop strong digital skills and practical examples of how subjects are used in the workplace.
- **Benchmark 3: Address the needs of each pupil.** Access to positive role models, personal stories, extra-curricular activities, all with assured equality and addressed gender bias.
- **Benchmark 4: Linking curriculum learning to careers**. Partake in enrichment activities that are strongly connected to the curriculum for vital hands-on experience. Engage in more STEM guided learning with career-relevant subject teaching.
- **Benchmark 5: Encounters with employers and employees.** Learn what work is like and what it takes to be successful with well-planned and meaningful STEM encounters.
- **Benchmark 7: Encounters with further and higher education.** Understand the full range of learning opportunities that are available.

OFSTED TARGETS

- Engage and motivate children, promote a sense of achievement and a commitment to learning.
- Develop an understanding of people beyond their experience, and challenge stereotypes.
- Develop curious, interested learners, creative and critical thinkers.
- Promote and support pupils' choices about the next stage of their education, employment, self-employment or training.
- Learn from mistakes and feedback and increase resilience to failure.
- Improve employability skills, teamwork, communication, adaptability, problem-solving and confidence.



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GET IN TOUCH TO BOOK YOUR WORKSHOPS

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