

INCLUSIVE APPROACHES TO TEACHING COMPUTING

EVIDENCE-BASED IDEAS TO IMPROVE REPRESENTATION IN COMPUTING EDUCATION IN FORMAL AND INFORMAL LEARNING SPACES



1 ENSURE INCLUSIVE TEACHING APPROACHES

- Encourage students to be creative with their digital skills through teamwork and projects.
- Use a range of tools and methods to engage all students, ensuring everyone can participate meaningfully e.g., interactive polls, collaborative apps and visual aids like mini white boards, to diversify expression, moving beyond the traditional hand-raising.
- Provide frequent, relevant and positive feedback, and set achievable tasks to build students' confidence.

2 CREATE RELEVANT CONTEXTS

- Students are more likely to engage in computing if they see how it relates to their lives and experiences.
- Connect their interests and values to real-world problems and opportunities, showing them how they can make a difference through computing.
- Discuss the ethical impact of computing and the technology industry in society. Work with students to co-create curriculum themes and topics that match their interests.

3 INCLUDE RELATABLE COMPUTING ROLE MODELS

- Increase the visibility of diverse and relatable role models in classroom resources, presentations and wall displays.
- Recognise the contributions of a range of people from different backgrounds in the computing curriculum to broaden students' perceptions of the field.
- Promote people who are using technology in fields outside of the tech industry, business and entrepreneurship.

4 ENCOURAGE FUTURE OPPORTUNITIES AND ASPIRATIONS IN COMPUTING

- Link computing lessons to various career pathways and industries.
- Make sure students are aware of computing jobs, including those outside the tech industry.
- Incorporate career guidance into lessons and offer opportunities to apply their learning to real-world issues.

5 BE AN ADVOCATE FOR CHANGE

- Advocate for an inclusive learning environment in computing by challenging stereotypes and addressing discriminatory language and behaviour.
- Educate students about social inequalities and their role in maintaining a safe and respectful learning environment.
- Work with colleagues to embed digital skills across subjects and advocate for general computing lessons for all students.

6 EFFECTIVE COMMUNICATION WITH FAMILIES AND CAREGIVERS

- Communicate with families and caregivers about the importance of digital skills for future job opportunities.
- Provide accessible career information on the school website and celebrate students' successes through newsletters and positive messages sent home.

7 CHALLENGE THE MYTH THAT ALL YOUNG PEOPLE ARE 'DIGITAL NATIVES'

- Challenge the myth that young people are inherently 'tech savvy'.
- Recognise different access needs and opportunities to use computers when not in school.
- Emphasise the importance of digital literacy for students' futures within your curriculum.
- Where possible, use free and open-source tools and resources so students can continue learning outside school.

8 ACCESSIBLE COMPUTING CLUBS AND EXTRACURRICULAR ACTIVITIES

- Ensure computing clubs and extracurricular activities are inclusive and accessible to all students.
- Clubs should offer a variety of computing-related topics, such as digital art, robotics and game design, to appeal to diverse interests.
- Encourage students to lead extracurricular activities, such as student subject leaders for computing, to build confidence and develop essential future skills.



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