

Communicating science to young people

The importance of good science and mathematics understanding

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Why young people?

- Young people have an innate curiosity and enjoy science subjects at school.
- It is at primary age when children form ideas about their own identity. Research has shown that if young people cannot see themselves as a scientist by age 10, they are unlikely to by age 14. ¹
- The way that science and mathematics are presented to young people is likely to have a long and lasting impact on their attitudes to these subjects.



Why science and mathematics understanding is crucial

- Science and mathematics are important for understanding and addressing many global challenges, including water, food and energy supply, climate change and population growth.
- One million new science, engineering and technology professionals will be required by 2020. One in 4 employers currently have problems recruiting STEM skilled employees.
- Scientific and technological advancement will require people to be highly adept at analysing and handling data, including strong problem solving skills.
- Currently, only 13% of young people in the UK study mathematics beyond 16.



Scientific and mathematical understanding is fundamental to fostering an inclusive and effective democracy. Science and mathematics should be key components of education, igniting curiosity as well as encouraging confidence and creativity.



Meeting real scientists

- Our **Summer Science Exhibition**, brings large numbers of scientists together with pupils to showcase the breadth of science careers.
- In 2015, 700 scientists presented across 22 exhibits and as part of a week long events programme.
- In 2015, 130 school groups attended with 2248 students and 236 teachers
- 100% of teachers said that the exhibition provides their students with positive role models of scientists.



Meeting real scientists

- A longer term partnership allows young people to really understand what scientists do and how research works.
- **Partnership Grants** gives up to £3000 to schools to work with a STEM partner to run an investigative project with their pupils.
- Since it started in November 2000, the scheme has awarded over £1.3 million to over 770 schools and colleges.



Teachers have a crucial role to play in realising our Vision. Ensuring the UK has an adequate supply of science and mathematics teachers is dependent on supporting professionalism in teaching and raising its status.



Subject support for teachers

- Working with teachers reaches more young people.
- Some teachers are not specialists in their subjects, particularly in primary education.
- Support with their subject enables them to gain confidence in their teaching.
- Our **Associate Schools and Colleges** scheme is a nationwide network aiming to share good practice in science teaching.



Any questions?