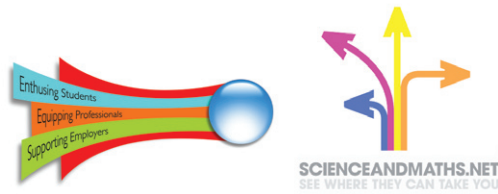


STEM Courses and Careers - Explore the Possibilities



Science and maths - where can they take you?

In this world of challenges and opportunities science and maths skills are vital for our future...but will there be enough young people with the skills needed?

Science and maths skills can open doors to a successful career...

What can families do to help young people make the right choices and keep their options open?

Our Top Ten Tips

- 1.** Talk to young people about the topics they are following in Science, Technology, Engineering (if they do it) and Maths (STEM) classes. Help them to make the link to the real world and to see the relevance to their future careers and to helping them develop their abilities and confidence.
- 2.** Take young people to science festivals, science and technology exhibitions and museums that explore the application of STEM subjects in innovative ways. Look out for science and maths related TV programmes like Bang Goes the Theory, Springwatch and Numb3rs or even Top Gear and the Discovery Channel.
- 3.** Encourage young people to explore the full range of opportunities in STEM. People in STEM careers can save lives, travel the world and often need good people skills. Good internet sources to start on are www.futuremorph.org and www.scienceandmaths.net and www.mathscareers.org.uk
- 4.** Talk to your school about opportunities for enhancement and enrichment activities that enable young people to enjoy STEM subjects and learn from real people working in STEM. These include After School Science Clubs, Computer Clubs for Girls, STEM Ambassador visits, CREST Awards. The numbers of girls choosing to study some of the STEM subjects after 16 is still small, but there are a number of schemes working to change things. Check out www.wisecampaign.org.uk and www.wiset.org.uk
- 5.** Support involvement in STEM related work experience that broaden horizons. Can you support a work placement or do you know someone who can? Remember that STEM related placements can be found in unexpected places.
- 6.** Talk to the school to make sure you are aware of any special events and extra –curricular careers activities for families that may be happening locally e.g. STEM careers events and Science and Engineering Week activities in March each year. www.britishtscienceassociation.org
- 7.** Make sure young people are aware of the value of STEM subjects in the world of work. The demand for STEM graduates will continue to rise. Research shows that chemistry, physics and maths graduates will earn on average 30% more in their working lifetime than other graduates. Girls should be aware that STEM careers have higher earning potential than more traditional careers often chosen by girls.
- 8.** Explore the wide range of education pathways and routes at Key Stage 3 and Key Stage 4 and post 16 to ensure young people do not rule themselves out

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of a career that draws on STEM subjects. The national Choices publications **Which way now?** and **It's your choice** guides are there to help on the full range of options 14–19. Ask at school about the option to take Triple Science. Remember information on the full range of courses available locally is included in the online 14–19 prospectus. (www.direct.gov.uk/14-19prospectus)

9. Help them investigate the wide range of routes available into STEM related careers. See www.futuremorph.org, www.connexions-direct.com/jobs4u, www.ingeniuty.org.uk and www.mathscareers.org.uk for more information on different ways into careers from STEM subjects.

Some useful websites

STEM careers information and resources at:

www.futuremorph.org

www.mathscareers.org.uk

Information for parents on careers and education at:

<http://www.connexions-direct.com/jobs4u/>

<http://www.connexions-direct.com/parentcarer/>

<http://www.direct.gov.uk/en/Parents/Schoolslearninganddevelopment/HelpingYourChildToLearn/index.htm>

<http://www.bbc.co.uk/schools/parents/>

Other STEM initiatives and careers information

Sites with a focus on girls

www.wisecampaign.org.uk, www.wiset.org.uk

and women in SET www.ukrc4setwomen.org

and Computer clubs for girls

<http://www.cc4g.net/>

Pharmaceutical careers

<http://abpi-careers.org.uk/giving-career-advice/parents-folder>

10. Keep the dialogue open – talk to young people after they have taken part in STEM activities. Young people may need encouragement and support to achieve in subjects they may find challenging. Take advantage of a number of schemes that provide residential opportunities for young people interested in STEM careers. Examples include Go4SET and Headstart run by Engineering Development Trust, Smallpeice Trust courses including Get Ahead with STEM and Salter Chemistry Camps.

Science information for parents

<http://www.planet-science.com/parents/>

A focus on engineering careers and pathways into engineering www.ingeniuty.org.uk

A wide range of courses to promote engineering www.etrust.org.uk and www.smallpeicetrust.org.uk

Chemistry residentials www.salters.co.uk/camps

Widening participation into STEM

www.getaheadwithstem.org.uk

Widening access to higher education:

<http://www.thelep.org.uk/home> and

www.stimulatingphysics.org, Chemistry for our Future and

More Maths Grads are combining into one scheme

www.stemprogramme.com

www.britishtscienceassociation.org – festivals, CREST

awards and science and engineering week

www.stemnet.org.uk –STEM ambassadors and after school science clubs

www.24hourmuseum.org.uk a site promoting museums and heritage sites across the UK