Useful websites

Developed with teachers, the RAEng has produced a suite of engineering based resources for teachers and volunteers.
http://www.raeng.org.uk/education/schools/teaching-and-learning-resources

Engineering Development Trust EDT, provide hands-on STEM activity days, STEM family challenges, skills development courses for girls, Headstart summer schools, Go4SET competition, Engineering Education Scheme and the Year in Industry.
http://www.etrust.org.uk/educators

Details of the Faraday Challenge days, the First Lego League competition, the grant information plus teaching and careers resources can all be found here.
http://www.theiet.org/resources/teachers/

The Institution of Chemical Engineers brings you the Top 10 Flash Bang demos. Instruction sheets plus important health and safety information.
http://www.whynotchemeng.com/wnce_home/Teachers/Top-Ten-Flash-Bang-Demos.aspx

Activity packs introduce engineering principles and challenges with activity sheets, resource lists, instructions and information on further activities.
http://www.tomorrowsengineers.org.uk/Careers_resources/Engineering_activities/

IOP Institute of Physics

This site has loads of resources for teachers including the intrepid cat and dog team, Marvin and Milo, and ideas for fun experiments for clubs.
http://www.iop.org/resources/

Royal Society of Biology

Teacher resources including SciberMonkey and Gopher Science for primary schools, competitions and careers resources for secondary schools.
https://www.rsb.org.uk/teachers

ROYAL SOCIETY OF CHEMISTRY

Chemistry Olympiad, Top of the Bench, the global experiment and much more.
http://www.rsc.org/campaigning-outreach/outreach/educators/

nrich

Nrich Maths aims to help teachers embed problem solving in the curriculum. Lots of great on-line resources http://nrich.maths.org/teachers

MURDEROUS MATHS

The website contains some excellent ideas, resources, and videos to support innovative and practical maths demonstrations in the classroom.
www.murderousmaths.co.uk

Nuffield Foundation

Resources for practical learning in biology, chemistry and physics.
http://www.nuffieldfoundation.org/practical-work-learning

online competitions for post 16 students designed to challenge students' extended knowledge of physics, biology and chemistry with opportunities to progress to International competitions. www.physics.ox.ac.uk/olympiad/
http://www.ukbiologycompetitions.org/british-biology-olympiad/
http://www.rsc.org/campaigning-outreach/outreach/educators/uk-chemistry-olympiad/

The Biotechnology and Biological Sciences Research Council have a number of teaching resources to download including information on school-scientist links.
http://www.bbsrc.ac.uk/engagement/schools/

239 tried and tested experiments which would engage and inspire any audience.
http://www.thenakedscientists.com/HTML/experiments/

FREE education resources for 5-18 year olds encompassing biology, environmental science, and conservation. www.arkive.org/education/

You can find a demonstration of pretty much anything you want; just make sure the clips are short, relevant and fun.
http://www.youtube.com/channels/science_education

STEM challenges and resources for science and technology, focussing on global issues including energy, climate change and disaster risk reduction.
http://practicalaction.org/schools

the British Science Association's flagship programme for young people, providing science enrichment activities to inspire and engage 5-to-19-year olds.
http://www.crestawards.org/about-crest-awards/

the world's largest and most popular platform for people-powered research.
https://www.zooniverse.org/about

BP educational service provides free resources for schools and clubs, plus the Ultimate STEM challenge. http://bpes.bp.com/

Engineering boxes, challenge cards and on-line classroom resources all free at
http://www.jamesdysonfoundation.co.uk/teachers/secondary/

A wide range of great activity ideas for STEM Clubs, from one-off challenges to short and long projects. http://www.stemclubs.net/activity-categories/

The adapted STEM Challenge resource packs are free to download, for use in the classroom or as part of your extra-curricular STEM Club.
http://www.stemchallenges.net/challenges/

The RSC's Spectroscopy in a Suitcase is a FREE kit available to schools on loan, delivered by trained university students. Equipment is also available for short-term loan. http://www.rsc.org/learn-chemistry/collections/spectroscopy/spectroscopy-in-a-suitcase

FREE STEM resources KS4 /KS5 bringing real, up-to-date science into classrooms across Europe. Resources, videos and lessons plans for running engaging relevant STEM debates with your students http://www.engagingscience.eu

is a free online event where students get to interact with scientists in an X Factor-style competition between scientists, where the students are the judges. Also I'm an engineer and I'm an astronaut. http://imascientist.org.uk/
http://imanengineer.org.uk/ http://imanastronaut.uk/

The UK's largest collection of STEM teaching and learning resources, for teachers.
https://www.stem.org.uk/resources