

# STEM, UKTram and you.

Yvonne Baker

Chief Executive, STEM Learning Ltd.



# What is STEM?

Science, Technology, Engineering and Mathematics

*“[Science] is more than a school subject, or the periodic table, or the properties of waves.*

*It is an approach to the world, a critical way to understand and explore and engage with the world, and then have the capacity to change that world...”*

President Barack Obama, 23 March 2015



# STEM Learning

Our vision:

*A world-leading STEM education for all young people across the UK*

A world-leading STEM education is one which:

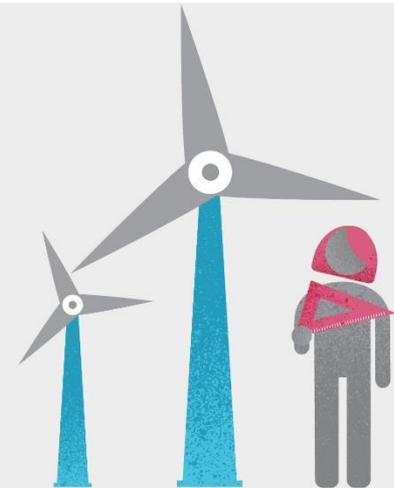
*combines knowledge-rich and effective teaching; thinking, investigative, creative and practical skills; with experiences which develop a lifelong love for STEM and where it can lead. A world-leading STEM education has economic, social, cultural & ethical value with positive impacts on social mobility, and promotes equality in future careers.*



Over 80% of teachers who work with us improve the quality of their STEM teaching



More young people pursue STEM careers as a result of our support



Disadvantaged students are even more likely to benefit from our support



Science teachers are 160% more likely to stay in teaching after participating in our CPD



(Source: STEM Ambassadors Impact Report, 2016)

# Good news ...

- Increasing numbers of young people, including girls, taking science GCSEs and A-Levels
- *Australia, Canada, Ireland, Portugal, Singapore, Slovenia and **the United Kingdom** are high performers<sup>[L]</sup><sub>[SEP]</sub> in science. Their 15-year-old students hold strong beliefs about the value of scientific enquiry, and larger-than-average proportions of students in these countries expect to work in a science-related occupation later on.*
  - *PISA 2015, OECD.*

# And not so good news

The Telegraph

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IMAGINATIVE MINDS GROUP

# TeachingTimes



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## Business | Ready and Enabled

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Productivity

Sustainability

Cost efficiency

Workforce

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### EDUCATION ZONES

- I-Wigt - What Is Good Teaching?
- Wigt - What Is Good Leadership?
- Project-Based Learning Resources
- Creative Teaching And Learning
- School Leadership And Management
- Every Child
- Professional Development Today
- Learning Zones

## New Report Shows UK STEM Skills Gap



Nearly six in ten employers of science, technology, engineering and mathematics (STEM) graduates think there is a skills gap in the workforce, according to a new YouGov study.

# the ENGINEER

News Policy & business

## STEM recruitment crisis costs UK industry £1.5bn per year

17th May 2018 11:41 am

**A recruitment crisis is looming with industry struggling to recruit sufficiently skilled scientists and engineers, while qualified applicants are refused visas.**

Home > Business > Ready and Enabled

## What is the UK doing about its STEM skills shortfall?

Brought to you by **brother** at your side



# Where do young people find careers information & advice?

- Parents / guardians – 70%
- Teachers – 57%
- Friends – 48%
- Relatives – 42%
- General internet searches – 32%
- Professional careers advisers – 27%

Source – “Careers Guidance; Guaranteed”,  
summary report of on-line survey, AoC January 2014

# So what do we need to do differently?

- **Young People** – engage directly with identifiable role models, and highlight a variety of routes into the sector
- **Teachers** – support them to understand the knowledge and skills required in STEM industry and how to embed this in their teaching
- **Schools** – build sustainable school-business links locally at all levels

# STEM Ambassadors



**33,000 active volunteers  
from over 3000 companies**

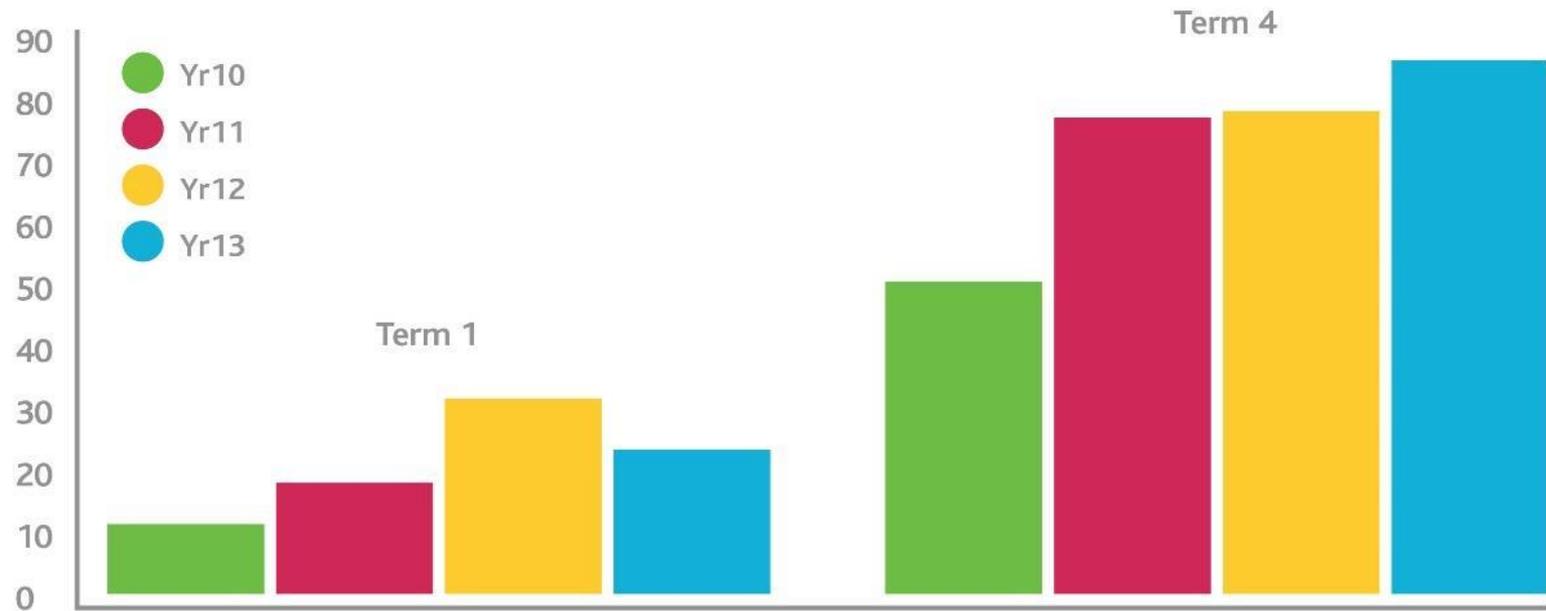
Demystifies young people's views of STEM jobs and roles

Supports motivation and skills development in the volunteers

Showcases employers and their opportunities to the future workforce

# Teacher Placement with Crossrail

Awareness of career opportunities



Source: David Sandall, participant 2014

# ENTHUSE Partnerships

Two year partnership of 6-8 schools working in collaboration with a local employer.

Improves young people's and teachers' awareness of career opportunities and increasing their enthusiasm for STEM subjects



# How you can get involved

Find out more information at  
**[www.stem.org.uk](http://www.stem.org.uk)**

Get in touch with our employer engagement team:  
**[employers@stem.org.uk](mailto:employers@stem.org.uk)**



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