

The world of STEM in Lincolnshire

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STEM
AMBASSADORS

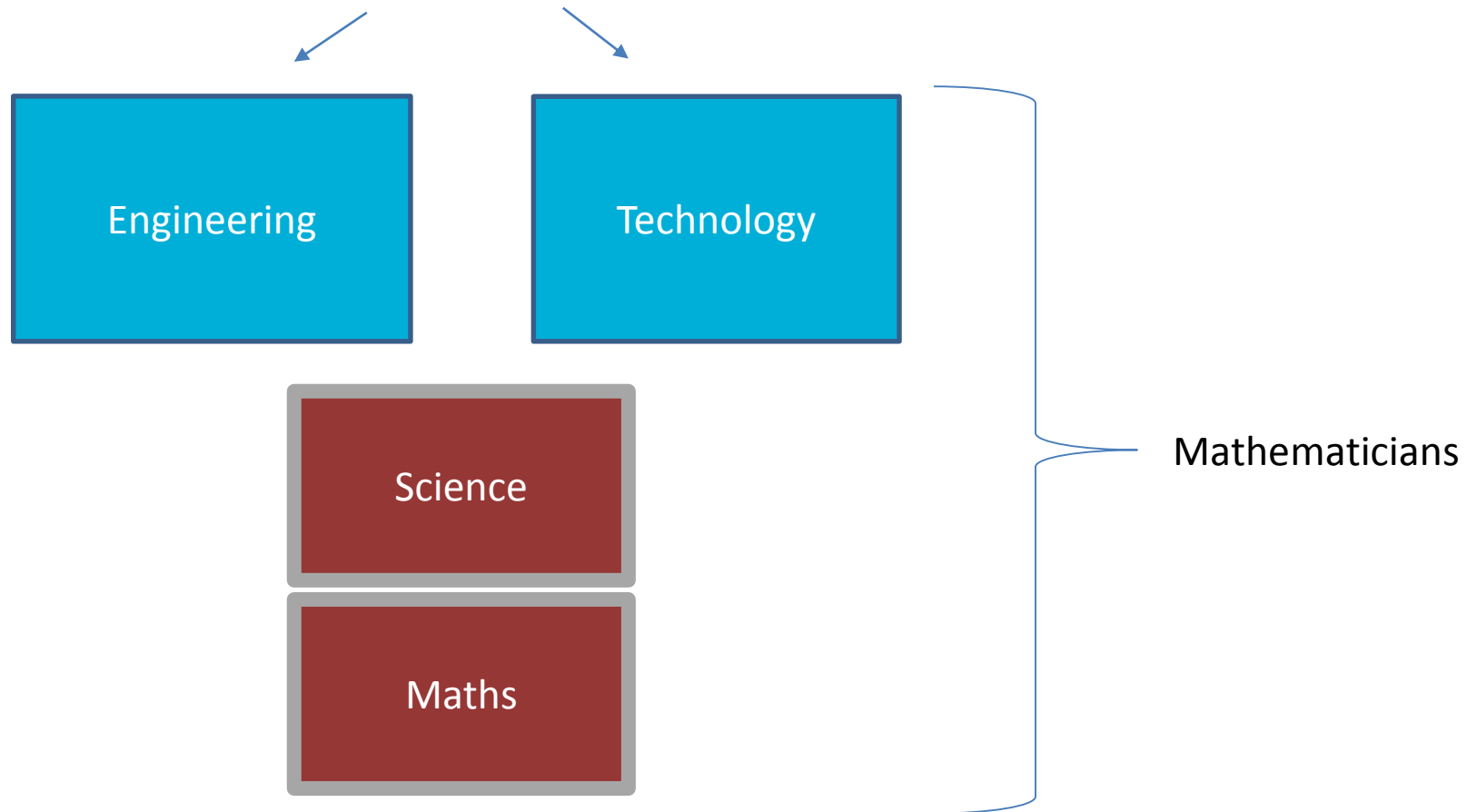
So what is STEM?

Engineering	Application of technologies using ones knowledge of science to solve problems
Technology	Application of science to create solutions to problems
Science	Description of the world around us, with the aid of maths
Maths	Language that describes relationships between quantities

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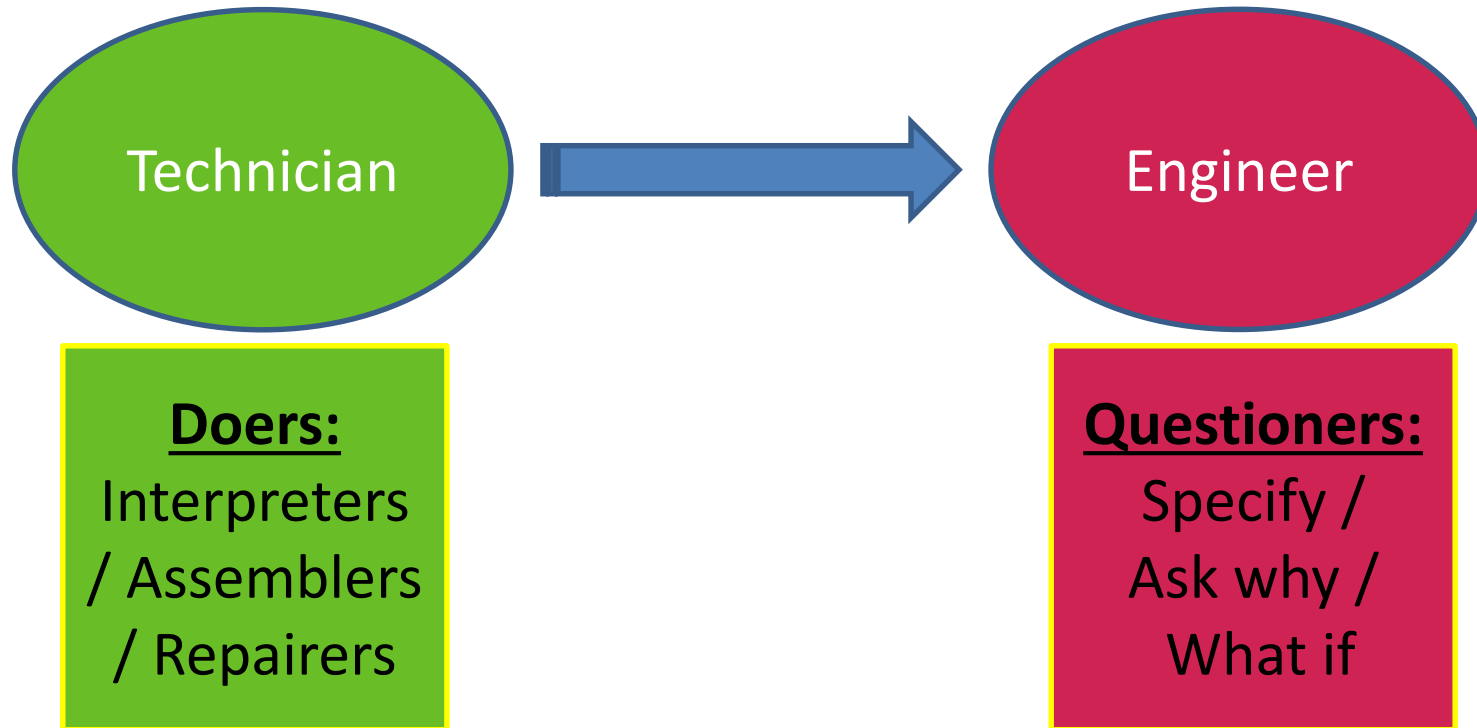
Science and Maths are the building blocks for Engineering and Technology

Engineers & Scientists



A deeper dive into Engineering

There are two kinds of people:



A deeper dive into Engineering

In Engineering, Doers and Questioners are required throughout every phase.

<u>Phase</u>	<u>Description</u>	<u>Examples in industry</u>
Operations & Maintenance (O&M)	User	Greencore, Eon, EDF, County Councils, Anglian Water, RAF, Dong Energy, Phillips 66, Novartis, ABP
Projects	Creator	Siemens, Arup, Dong Energy, Engie, BAE, GAME Engineering, Farmers
Research & Design (R&D)	Inventor	Siemens, BAE, British Steel, Raytheon, Park Air Products, Universities, Limagrain

A deeper dive into Engineering

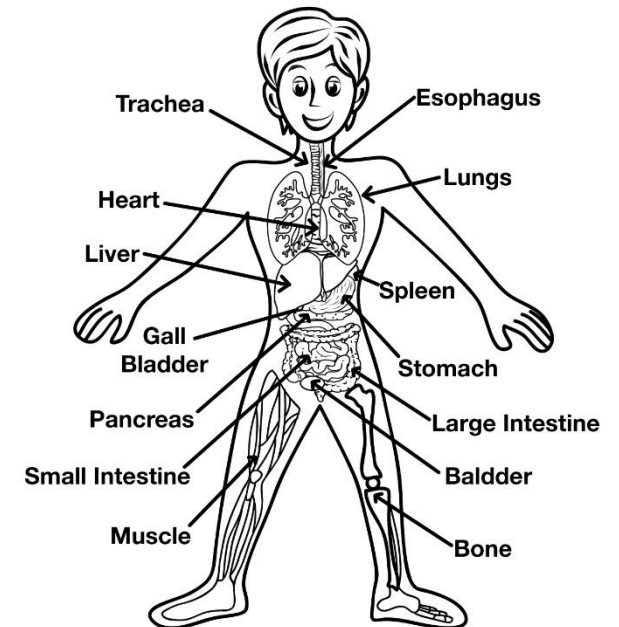
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A deeper dive into Engineering

Each of the following areas could be the main focus of an engineering business. Engineers could have **broad** knowledge, or **deep** knowledge with one main focus, within an area.

Electrical – blood vessels of the machine
Electronics – nerves & muscles of the machine
Software – the brain of the machine
Networks – communication – voice!
Structures – load bearing – bones!
Mechanical – mechanisms – organs of the machine
Civil – interaction with the earth – the feet!



Opportunities for employment

There is a huge skills gap, and the UK needs more people to pursue STEM careers.


In Lincolnshire there are many STEM industries including, but not limited to:

- Defence
- Process Industry
- Food
- Energy



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Why a STEM Ambassadors programme?



“The UK’s economic future lies in high value, innovative and knowledge- intensive activities. To pursue this course, a highly skilled science, technology, engineering and mathematics workforce is essential.”

UK Commission for Employment and Skills (2015)

“The government is committed to ensuring the UK remains at the edge of science, research and innovation. The STEM Ambassadors programme is an important part of our efforts to increase the supply of people with STEM skills in the economy.”

BEIS, 2016

Process for becoming a STEM Ambassador

1

Register and DBS check

2

Approved status

3

ID card, photographs, badge

Examples of STEM Ambassador activities



Classroom



STEM Club activities



Careers talks



Speed networking



Online mentoring



Site visits and hosting work experience



Large science festivals and fairs



Non-school group

Contact details

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STEM Learning operates the STEM Ambassador Hubs, the National STEM Learning Centre and Network, alongside other projects supporting STEM education www.stem.org.uk