

# The Primary Careers Tool


Embedding careers related learning  
from Early Years to KS2

**nustem**



**Northumbria  
University**  
NEWCASTLE

# Exploring Aspirations?



What did you  
want to be  
when you were  
older?

# What do children aspire to be?

The NUSTEM group collected careers-related aspirations from children in Years 3-6 from 4 primary schools in the North East.

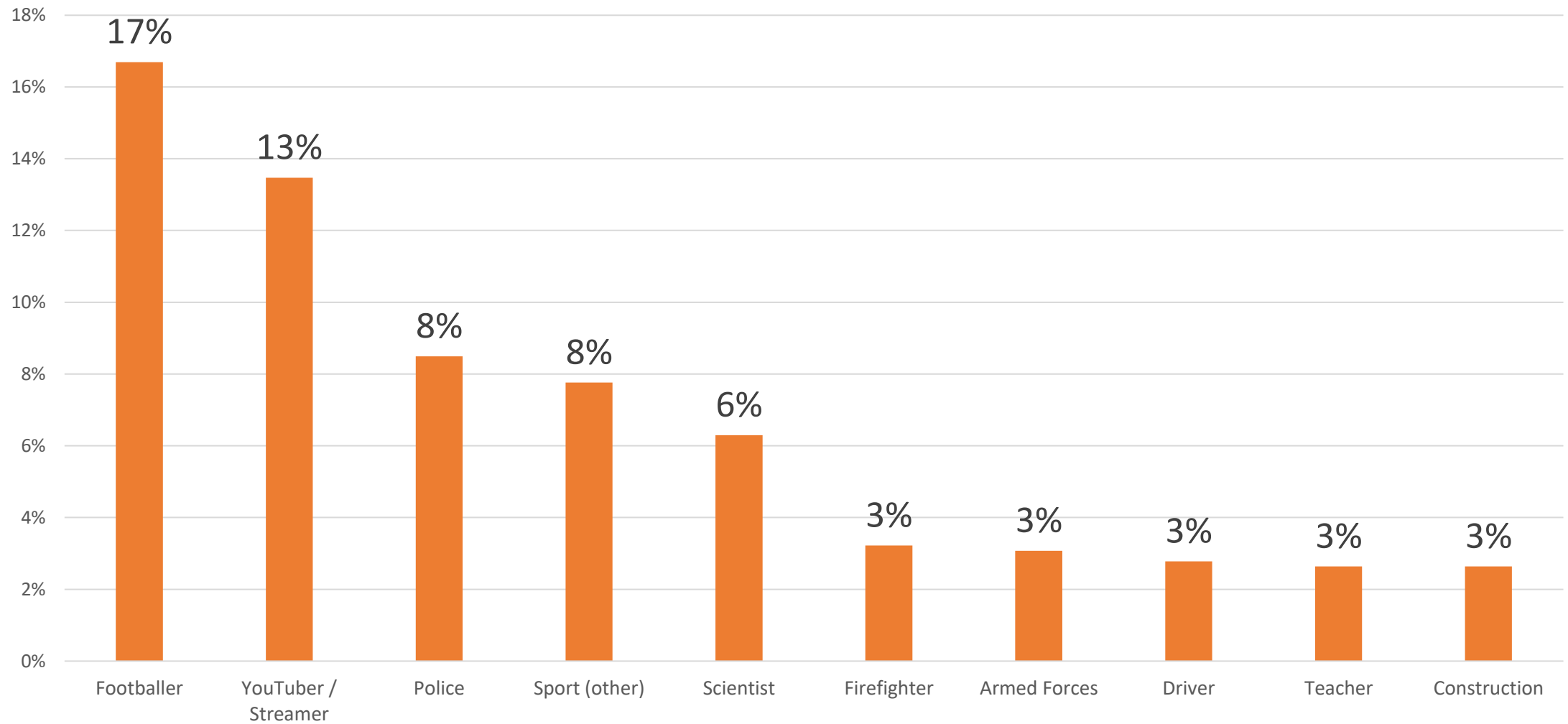
300 children answered the question:

**“What would you like to be when you grow up?”**

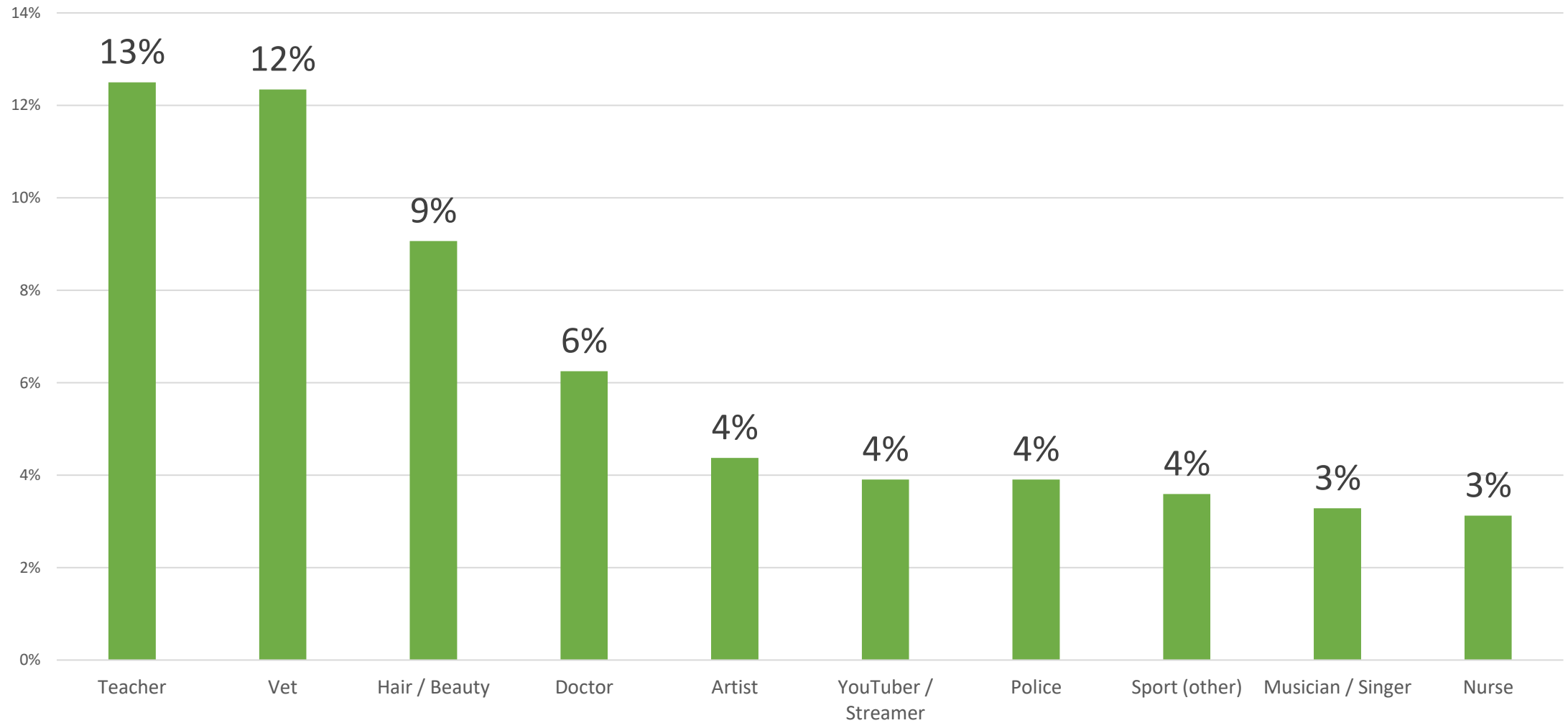
Girl's Aspirations	Shared Aspirations	Boy's Aspirations
Vet	Teacher	Footballer
Doctor	Youtuber / Streamer	Armed Forces
Nurse	Police	Scientist
Artist	Sport (other)	Firefighter
Hair / Beauty		Driver
Musician / Singer		Construction

The Top 10 Aspirations for Boys and Girls in the NUSTEM Survey

## Top ten careers aspirations for boys aged 8-11



## The top ten careers aspirations for girls aged 8-11



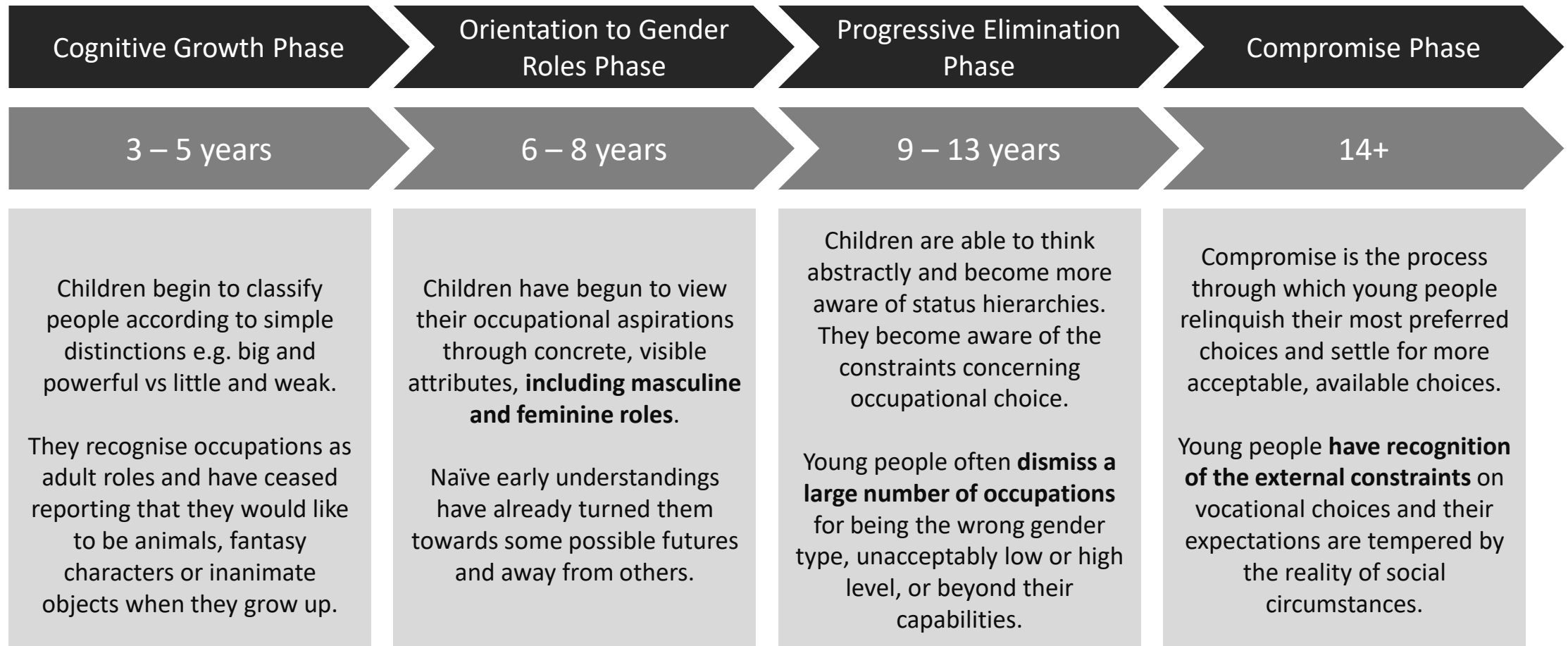
Rank	Aspiration (all)	%	Aspiration (male)	%	Aspiration (female)	%
1	Footballer	9%	Footballer	17%	Teacher	13%
2	YouTuber / Streamer	9%	YouTuber / Streamer	13%	Vet	12%
3	Teacher	7%	Police	8%	Hair / Beauty	9%
4	Vet	7%	Sport (other)	8%	Doctor	6%
5	Police	6%	Scientist	6%	Artist	4%
6	Sport (other)	6%	Firefighter	3%	YouTuber / Streamer	4%
7	Hair / Beauty	5%	Armed Forces	3%	Police	4%
8	Scientist	4%	Driver	3%	Sport (other)	4%
9	Doctor	4%	Teacher	3%	Musician / Singer	3%
10	Artist	3%	Construction	3%	Nurse	3%

# Findings

- Careers aspirations were generally limited to a small range of options – **Careers Aspirations are Narrow**
  - 81 different ‘types’ of role
  - Top 20 jobs accounted for 75% of those roles.
- **Careers aspirations are gendered** – aspirations fall into gender stereotypical roles.
- Boys gave a broader range of STEM aspirations than girls (28 vs 17)



# How are careers aspirations formed?



# Careers education in primary schools

**“This is not about providing “careers advice”** in primary schools but breaking down barriers, broadening horizons and raising aspirations, giving children a wide range of experiences of the world including the world of work. It is about opening doors, showing children the vast range of possibilities open to them and helping to keep their options open for as long as possible.”

“We need to stop children ruling out options because they believe, implicitly or explicitly, that their future career choices are limited by their gender, ethnicity or socio-economic background.”

[Education and Employers, 2020](#)

# A note on 'Raising' aspirations

The Education and Employers quote speaks of 'Raising Aspirations'.

Is Raising Aspirations appropriate for our children?

Who are we to decide which career path is a high or low aspiration?

What metrics would we use? Money, Influence, Worth, Happiness?

The Primary Careers Tool isn't designed to raise anything, but to broaden knowledge.

# Embedding Careers in Teaching

## The Primary Careers Tool

The screenshot shows the Primary Careers Tool interface. On the left is a sidebar with a list of topic areas: Animals, including humans; Earth and Space; Electricity; Everyday Materials; Evolution & Inheritance; Forces; Forces & Magnets; Light; Living Things & Their Habitats; Plants; Rocks; Seasonal Changes; Sound; and States of Matter. The main content area displays a grid of career cards. Each card includes a title, a brief description, and a 'Read more >' link.

Topic Area	Career	Description
Animals, including humans	<b>Sports Scientist</b>	Sports scientists require the ability to analyse physical and... <a href="#">Read more &gt;</a>
	<b>Zoologist</b>	Zoologists study the anatomy, behaviour, classification, evolution... <a href="#">Read more &gt;</a>
	<b>Vet</b>	Veterinary physiotherapists work alongside veterinary surgeons... <a href="#">Read more &gt;</a>
Living Things & Their Habitats	<b>Ornithologist</b>	Ornithologists are a type of zoologist who study ornithology.... <a href="#">Read more &gt;</a>
	<b>Nurse</b>	Nursing is generally regarded as a caring profession but the... <a href="#">Read more &gt;</a>
	<b>Marine Biologist</b>	Marine Biologists study all of the creatures that live in the... <a href="#">Read more &gt;</a>
Plants	<b>Herpetologist</b>	A herpetologist is a zoologist who studies reptiles and amphibians... <a href="#">Read more &gt;</a>
	<b>Animal Technologist</b>	Animal technologists work in research and development laboratories... <a href="#">Read more &gt;</a>
	<b>Herpetology Veterinarian</b>	Herpetology veterinarians specialise in the care of reptiles... <a href="#">Read more &gt;</a>
Seasonal Changes	<b>Surgeon</b>	A surgeon cuts the human body to remove diseased tissue or organs... <a href="#">Read more &gt;</a>
	<b>Geologist</b>	Geologists work to understand the history of our planet so they... <a href="#">Read more &gt;</a>
	<b>Surgeon</b>	A surgeon cuts the human body to remove diseased tissue or organs... <a href="#">Read more &gt;</a>

<https://nustem.uk/primarycareers>

The screenshot shows the Primary Careers Tool interface for mathematics. On the left is a sidebar with a list of topic areas: Algebra; Geometry - Position and Direction; Geometry - Properties of Shapes; Measurement; Number; Ratio and Proportion; and Statistics. The main content area displays a grid of career cards. Each card includes a title, a brief description, and a 'Read more >' link.

Topic Area	Career	Description
Algebra	<b>Colour Technologist</b>	A colour technologist uses the science and technology of colour... <a href="#">Read more &gt;</a>
	<b>Civil Engineer</b>	Civil engineers are responsible for the designing and building... <a href="#">Read more &gt;</a>
Geometry - Position and Direction	<b>Mechatronic Engineer</b>	Mechatronic engineers combine aspects of both mechanical engineering... <a href="#">Read more &gt;</a>
	<b>Structural Engineer</b>	Structural engineers are focused on all aspects concerned with... <a href="#">Read more &gt;</a>
Geometry - Properties of Shapes	<b>Robotics Engineer</b>	A robotics engineer is responsible for creating robots and robotic... <a href="#">Read more &gt;</a>
	<b>Robotics Technician</b>	Robotic technicians work with a team of robotics professionals... <a href="#">Read more &gt;</a>
Measurement	<b>Astronaut</b>	Astronauts are trained by different space agencies such as NASA... <a href="#">Read more &gt;</a>
	<b>Crystallographer</b>	Crystallographers study atomic and molecular structures. They... <a href="#">Read more &gt;</a>
Number	<b>Astronomer</b>	Astronomers are a type of scientist that study objects in space... <a href="#">Read more &gt;</a>
	<b>Robotics Engineer</b>	A robotics engineer is responsible for creating robots and robotic... <a href="#">Read more &gt;</a>
Ratio and Proportion	<b>Automotive Engineer</b>	Automotive engineers are involved with the building, designing... <a href="#">Read more &gt;</a>
	<b>Satellite Communications Engineer</b>	Satellite communications engineers work with the satellite systems... <a href="#">Read more &gt;</a>
Statistics	<b>Geologist</b>	Geologists work to understand the history of our planet so they... <a href="#">Read more &gt;</a>
	<b>Surgeon</b>	A surgeon cuts the human body to remove diseased tissue or organs... <a href="#">Read more &gt;</a>
Statistics	<b>Taxidermist</b>	A taxidermist stuffs and mounts deceased animals to be displayed... <a href="#">Read more &gt;</a>

<https://nustem.uk/primarycareersmaths>

Topic Areas

- 🐾 **Animals, including humans**
- 🌍 Earth and Space
- ⚡ Electricity
- 📦 Everyday Materials
- 🔗 Evolution & Inheritance
- ➡ Forces
- 🧲 Forces & Magnets
- 💡 Light
- 🐾 Living Things & Their Habitats
- 🌱 Plants
- 🪨 Rocks
- 🌡 Seasonal Changes
- 🔊 Sound
- 🔬 States of Matter

**Sports Scientist**  
Sports scientists require the ability to analyse physical and...  
[Read more >](#)

**Ornithologist**  
Ornithologists are a type of zoologist who study ornithology,...  
[Read more >](#)

**Herpetologist**  
A herpetologist is a zoologist who studies reptiles and amphibians,...  
[Read more >](#)

**Zoologist**  
Zoologists study the anatomy, behaviour, classification, evolution...  
[Read more >](#)

**Nurse**  
Nursing is generally regarded as a caring profession but the...  
[Read more >](#)

**Animal Technologist**  
Animal technologists work in research and development laboratories...  
[Read more >](#)

**Vet**  
Veterinary physiotherapists work alongside veterinary surgeons...  
[Read more >](#)

**Marine Biologist**  
Marine Biologists study all of the creatures that live in the...  
[Read more >](#)

**Surgeon**  
A surgeon cuts the human body to remove diseased tissue or organs...  
[Read more >](#)

**Herpetology Veterinarian**  
Herpetology veterinarians specialise in the care of reptiles...  
[Read more >](#)

## Structural Engineer

0 Comments / Categories: committed, observant, tenacious; Primary, Year 1, Year 2, Year 3, Year 4, Year 5, Year 6; Maths (Primary), Science (Primary); Forces, Maths - Algebra, Maths - Geometry - Position and Direction, Maths - Geometry - Properties of Shapes, Maths - Number; Addition and subtraction, Algebra, Forces, Fractions, Geometry, Multiplication and division, Number, Number and place value, Position and direction, Primary, Properties of shapes, Science;

Upper Key Stage 2 level careers description

Three attributes

Image search link

Structural engineers are focused on all aspects concerned with buildings and built structures, such as houses, hospitals, office blocks, bridges, oil rigs, ships and aircraft. They work to understand, predict and measure aspects such as the strength, stability and how rigid buildings are. They also work to develop new designs or modify the designs of buildings or structures which are to be constructed and are responsible for choosing the appropriate materials, such as concrete, steel, timber and masonry, to meet design specification.

**Attributes:** observant, committed, tenacious

- [Google Image Search link](#)

# Exploring the Primary Careers Tool

Science: <https://nustem.uk/primarycareers>

Maths: <https://nustem.uk/primarycareersmaths>

Choose a topic in science or maths that you have taught recently.  
Look at the jobs on the PCT for that topic.

How could you have included one of the jobs into your lesson?  
Eys aimed Question.

# Image use and e-safety

- Each career contains a link to an image search
- The link is for a counter-stereotypical image search  
e.g “structural engineer AND female”, “nurse AND male”.
- Always follow good e-safety practices: you should never do a live image search in front of a class as you have no control over the results that could be displayed

# Creating a presentation slide

