

STEM PERSON

OF THE

STEM Person of the
Week

THE WEEK

Children's understanding of 'scientists'

We asked 450 children from a school to 'write down 6 words to describe a scientist'.

What do you think were some of the common words that were used?
(write one or two into the chat window)

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What do you think were some of the common words that were used?
(write one or two into the chat window)

mad

brainy

clever

test tubes

white coat

nerdy

special glasses

boy or girl

careful

talented

funny

awesome

hard-working

observant

Expected stereotypical views

- Nearly half of all the words chosen were categorized as ‘Stereotypes’
- Of the Stereotypes words, 60% described some form of intelligence (clever, brain box, genius, etc.)
- Girls were statistically more likely to use positive sentiments to describe scientists (24% for girls, 15% for boys)
- Very few gendered words were used (0.5%)

What characteristics are useful to be successful in science (or STEM) careers?

- Collaborative
- Committed
- Communicator
- Creative
- Curious
- Hardworking
- Imaginative
- Logical
- Observant
- Open-minded
- Organised
- Passionate
- Patient
- Resilient
- Self-motivated

Changing stereotypes: Scientist of the Week

- 5 week teacher-led, whole school activity
- Carefully chosen role models to reflect the diversity in the skills needed in the science workforce, and the people who work in science
- Teacher discusses the scientist with their class, and praise students for showing the attributes during the week.



STEM PERSON OF THE WEEK | **James Hutton**
Geologist (1726-1797)

James was a doctor and a farmer but he is famous for his work in geology. He was **hard-working**, learning many disciplines, and going to university three times. He was **observant** and noticed that rocks near Eyemouth could not have been formed in the order they appeared. James was **logical**; once he had worked out that the layers in rocks were in the 'wrong' order, he worked out a reason to explain this fully.

Hard-working Observant Logical



STEM PERSON OF THE WEEK | **Mary Somerville**
Mathematician (1780-1872)

Mary, born in Jedburgh, was an astronomer, campaigner, writer and mathematician. She was **open-minded**: she explored new scientific ideas and campaigned for women's rights. She was **self-motivated** as she taught herself Latin. Mary was a good **communicator**: she wrote several important books and predicted the discovery of the planet Neptune.

Open-minded Self-motivated Communicator



STEM PERSON OF THE WEEK | **Margaret Dickinson**
Botanist (1821-1918)

Margaret, who lived in Norham, was a botanist. She recorded the range of wild plants which grow near us in this area. She was **creative**, and used her watercolour painting skills in her scientific work. She had to be **patient** as to record all the species she did took her 30 years. Margaret was highly **committed** to recording botany: she travelled widely to do this at a time when women didn't tend to.

Creative Patient Committed



STEM PERSON OF THE WEEK | **Cpt. Samuel Brown**
Engineer (1776-1852)

Sam Brown, who lived in Eyemouth, was an inventor and bridge engineer. He designed and managed the building of the Union Chain Bridge. He was **imaginative**, inventing lots of things and proving to the Royal Navy that iron rigging chains were better than hemp ones. He was **resilient** and bounced back well after his railway bridge in 1832 was not successful. Sam enjoyed being **collaborative** with people he respected and admired, such as John Rennie.

Imaginative Resilient Collaborative



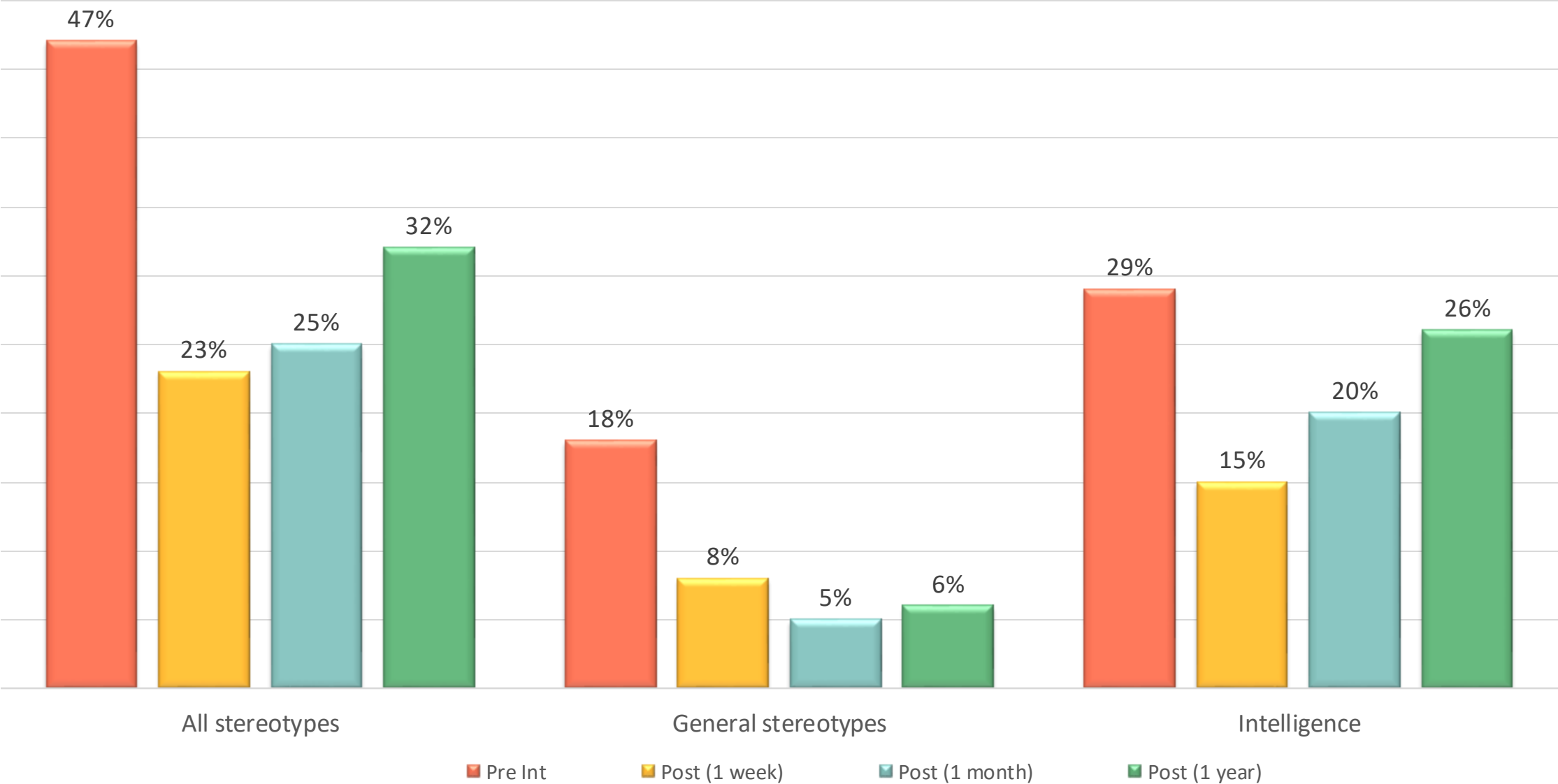
STEM PERSON OF THE WEEK | **John Rennie Sr.**
Stone Mason (1761-1821)

John Rennie, from East Lothian, was an expert stone mason who designed bridges, canals, docks and lighthouses. He was **passionate**: he often truanted school to go to work in an engineering workshop instead! He was **organised**: some of his projects were on an immense scale. John had to be **curious** to investigate new engineering solutions to problems.

Passionate Organised Curious




STEM Person of the Week: trends in stereotype vocabulary use



STEM Person of the Week in your school


- 5 STEM People over 5 weeks (October half term to Christmas)
- 1 poster of each STEM person to display in every class
- A postcard of the STEM person for every child each week
- PowerPoint presentation slides (at the end of this powerpoint) with teacher guidance to introduce the STEM people to their class at the start of the week.
- Throughout the week encourage children to note down when they have shown the skills that the week's STEM person has used.



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Open-minded Self-motivated Communicator



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Open-minded

Self-motivated

Communicator



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STEM PERSON OF THE WEEK

Mary Somerville

Mathematician (1780-1872)

Like Mary, I am...



Open-minded

I am willing to listen to new ideas and respect other people's views and opinions.



Self-motivated

I like to do things for myself without being told how to do them.



Communicator

I am good at sharing information and ideas with other people.

Each card has a description of the STEM person and their chosen attributes on the front.

On the back of the card is space for children to write (or draw) examples of when they've used the skills in lessons during the week.

At the end of the week they could take the cards home, or stick them into science books.



SPOTW in your setting

- Take 5 minutes to plan what you need to do to organise SPOTW in your school.
- We'll make this full presentation available so that you could run a short staff training if needed.



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James Hutton

Geologist (1726-1797)

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Hard-working

Observant

Logical

James Hutton

Geologist (1726-1797)

Hard-working

Hard-working people put all of their effort into finishing things.

Observant

If you are observant you are quick to see things, you are able to spot fine details and are you good at paying attention.

Logical

Logical people can solve problems by thinking through them in a sensible order. They understand how one action can lead to another.



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Open-minded

Self-motivated

Communicator

Mary Somerville

Mathematician (1780-1872)

Open-minded

Open-minded people are willing to listen to new ideas and respect other people's views and opinions.

Self-motivated

Self-motivated people like to do things for themselves without being told how to do them.

Communicator

Communicators are good at sharing information and ideas with other people.



STEM PERSON
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Margaret Dickinson

Botanist (1821-1918)

Margaret, who lived in Norham, was a botanist. She recorded the range of wild plants which grow near us in this area. She was **creative**, and used her watercolour painting skills in her scientific work. She had to be **patient** as to record all the species she did took her 30 years. Margaret was highly **committed** to recording botany: she travelled widely to do this at a time when women didn't tend to.

Creative

Patient

Committed

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Margaret Dickinson

Botanist (1821-1918)

Creative

Creative people make new things and have original ideas.

Patient

If you are patient, you are able to stay calm when faced with problems.

Committed

Committed people stick with a project until the end.



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Cpt. Samuel Brown

Engineer (1776-1852)

Sam Brown, who lived in Eyemouth, was an inventor and bridge engineer. He designed and managed the building of the Union Chain Bridge. He was **imaginative**, inventing lots of things and proving to the Royal Navy that iron rigging chains were better than hemp ones. He was **resilient** and bounced back well after his railway bridge in 1832 was not successful. Sam enjoyed being **collaborative** with people he respected and admired, such as John Rennie.

Imaginative

Resilient

Collaborative

STEM PERSON
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Cpt. Samuel Brown

Engineer (1776-1852)

Imaginative

If you are imaginative, you can think of new and interesting ideas.

Resilient

Resilient people can quickly recover from difficult or challenging things.

Collaborative

Collaborative people work together to do things.



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John Rennie Snr.

Stone Mason (1761-1821)

John Rennie, from East Lothian, was an expert stone mason who designed bridges, canals, docks and lighthouses. He was **passionate**: he often truanted school to go to work in an engineering workshop instead! He was **organised**: some of his projects were on an immense scale. John had to be **curious** to investigate new engineering solutions to problems.

Passionate

Organised

Curious

John Rennie Snr.

Stone Mason (1761-1821)

Passionate

Passionate people have strong feelings about things that interest them.

Organised

If you are organised, you like to plan and prepare for the future.

Curious

If you are curious, you want to learn new things.

W P E R R S O N

Learn more about this set of STEM people using the links below.

W O F T H E

James Hutton

<https://www.edinburghgeolsoc.org/edinburghs-geology/geological-pioneers/james-hutton/>

<https://www.agnesscott.edu/lriddle/women/somer.htm>

Margaret Dickinson - <https://victorianweb.org/science/botany/10.html>

Samuel Brown

<http://unionchainbridge.org/bridge-story/captain-samuel-brown/>

T W I F F K

John Rennie Snr.

[https://www.gracesguide.co.uk/John_Rennie_\(1761-1821\)](https://www.gracesguide.co.uk/John_Rennie_(1761-1821))