

Meaningful Learning Experiences

Strategic Commitment	✓	Part of a Derby Opportunity Area careers initiative
Curriculum Provision	✓	Working scientifically and learning about 'Identity'
Employer Partnerships	✓	With a biomedical scientist from the local NHS trust
Reflective Young People	✓	Evaluated as part of the 'Our Future Derby' programme
Informed Career Choices	✓	Highlighting the range of roles within the Health Service

Biomedical Scientist inspires year 6 to work scientifically and learn about Identity

A brief from Village Primary Academy in Derby identified the topic of 'Identity', '*... looking at the science behind genetics and the body ... it is a complex scientific area that many of the children are interested in, linking to becoming doctors, scientists and biologists ... We would love the children to be able to meet any employees in this industry and produce something to showcase to parents.*'

Joinedup Careers Derbyshire brings together local partner organisations to support the current and future health and social care workforce. An approach to their programme lead proposed their involvement in the year 6 project, '*... we need the NHS to provide the 'real' aspect of the project, which will also help inform childrens' aspirations and awareness about career paths in the NHS.*'

An appeal through the organisation's network resulted in a positive response from two allied health professionals, one of whom was free to help with the project and worked as a Transfusion Practitioner in the Blood Transfusion Derbyshire Pathology Department at the Royal Derby Hospital. Aimee recorded a message in her workplace explaining her role and the importance of understanding inherited characteristics in managing the blood bank and the many different blood types. She also said that she was looking forward to seeing the children's work.

The three classes of children worked over a number of weeks to learn about the theory before undertaking a scientific investigation into the inherited characteristic of tongue rolling. Throughout the project, they know they would have to discuss their completed work with Aimee when she visited the school, before then presenting it to parents the following afternoon.

Benefits for the Students

- *'It made you want to try hard so you could impress her ... we felt pressured!'*
- *'We felt proud because she's an actual scientist ... she liked how we used a Venn diagram to show the sample results.'*
- *'It's made me really interested because at first I wasn't really interested in Science, but now I'm really interested.'*
- *'She said that it was very, very good. It made my heart beat so fast when she said it.'*
- *'I've always wanted to be a scientist and, because she said that [my work] was good, I feel I have the right things to become a scientist.'*

Benefits for the School

- 'It gave the children some more context for the work ... They knew their work would be checked by someone from the profession ... they enjoyed that ... it upped their vocabulary.'
- 'It's made a massive difference ... not just to the children but to the teaching of it as well. It's made it more exciting and enjoyable for us because there was an end goal.'
- 'The children were massively more engaged ... they knew they would have to present ...'
- 'We will repeat this again ... It's something we hope to roll out in other year groups and topics.'

Benefits for the Employer

- 'It's been good to know their work has been inspired and encouraged by seeing someone who works in healthcare science ... it is really rewarding to see they've got a lot out of that.'
- '...to show from a young age that these options are out there ... I think it's really important for that young age group as a foundation to work out if that's what they want to do.'

ID
Identity
Each human being has characteristics that make them who they are. These characteristics include physical appearance, personality, beliefs and opinions, likes and dislikes and hobbies. The different characteristics that a person has make up their identity. All people are unique.

Inherited characteristics
Inherited characteristics include eye colour, hair colour, skin colour, freckles, dimples, earlobe attachment, tongue rolling and height. By inheriting characteristics from their parents, children usually look a little like their mother and father but are never identical to either parent. Conditions such as colour blindness or diabetes can also be inherited.

Nature vs nurture debate
The nature vs nurture debate revolves around whether a person's behaviour is inherited through their genes (nature) or developed through their life experiences (nurture).

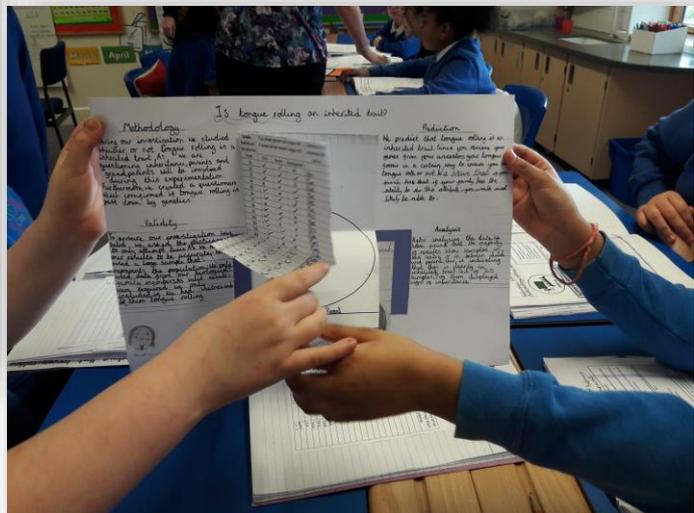
Nature
inherited characteristics

Nurture
childhood experiences
family relationships
friendships
culture
surroundings

Scientists and psychologists are still researching and debating whether nature or nurture has the greatest effect on human behaviour.

Fingerprints
Fingerprints are the marks made by the lines, known as friction ridges, on the underside tip of a finger or thumb. Fingerprints are unique to every person, even identical twins. There are three main fingerprint patterns: the loop, arch and whorl.

Fingerprints are left on every surface a person touches. The police collect fingerprints to identify criminals. Officers dust powder onto objects to reveal any fingerprints and compare them to the fingerprints of suspects.



An NHS biomedical scientist informed classroom learning about identity before visiting to talk with the children about their scientific investigation.