

Forensic



Recommended year group: Year 6

Theme focus: Science

Suggested term: Autumn

Theme introduction

Forensic is a theme that studies evolution and inheritance through the context of crime. Pupils begin the theme by experiencing a fictional crime scene and are introduced to the scientific field of forensics to help them analyse the crime scene. The learning in this theme is focussed on Science, specifically evolution and inheritance but also includes PSHE, History, Art and Computing. In Forensic, pupils will learn about inheritance and DNA and will learn why offspring are not identical to their parents. They will discover which characteristics are inherited from our parents and which characteristics can be affected by the environment or lifestyle choices. Through historical study, pupils will explore crime and punishment in several key historical periods, including the Romans, Anglo-Saxons and Victorians, as well as in the modern day. Pupils will also explore the theme of 'identity' and create a painting to reflect their personality and identity. The theme ends with pupils showcasing their learning in a 'forensic workshop' to share all of the learning from this theme.

Driving question

Who do you think you are?

Switch on Science unit

Evolution and inheritance

Switch on Computing unit

We are connected

Linked reading texts

The Balaclava Boys from *The Fib and Other Stories* by George Layton

Millions by Frank Cottrell Boyce

Writing outcomes

Newspaper report:

Write a crime newspaper report on a fictional break-in

Story with an issue or dilemma:

Write a modern version of the *Balaclava Boys* by George Layton

Curriculum coverage

History – Similarities, differences and connections

Art – Drawing and painting

PSHE – Living in the wider world

Computing – Digital data-handler

Excite

Crime Scene! Set up the classroom to look like a crime scene. Make the classroom look instantly different – chairs could be upturned and stationery strewn across the tables. Include clues, such as an open window, strips of fabric being caught on the window latch, footprints on the floor and grubby fingerprints.

Pupils to enter the 'crime scene' where seven pairs of scissors have been stolen! Read the poem *Scissors*, by Allan Ahlberg. This is intended to be a light-hearted context for exploring the theme of crime without causing any distress to pupils.

Theme essential vocabulary:

adaptation, characteristics, chromatography, crime, dominant, fingerprints, forensics, genes, inheritance, justice, offspring, punishment, recessive, species, survival, traits, variation

Explore

There are thirteen Explore sessions:

Explore 1: Crime scene investigation
Explore 2: Family traits: DNA detectives
Explore 3: Design a perfect police dog
Explore 4: Why are we not identical to our parents?
Explore 5: Police database
Explore 6: Theory of evolution
Explore 7: How do animals and plants adapt?

Explore 8: Why do we need laws?
Explore 9: Why do some people break the rules?
Explore 10: Crime and punishment
Explore 11: Reach for the stars
Explore 12: It's all in the detail!
Explore 13: My identity

Essential knowledge/concepts

1. Living things produce offspring of the same kind, but they will vary and will not be identical to their parents.
2. Inherited characteristics include eye colour, hair colour, bone structure and skin colour.
3. Environmental characteristics include influences on personality, habitats and parenting.
4. Understand dominant genes dominate the inheritance pattern and mask the weaker genes; recessive genes are weaker genes that are masked by dominant genes.
5. Fossils provide information about living things that inhabited the Earth millions of years ago.
6. Identify how animals and plants are adapted to suit their environment in different ways.
7. Know that rules and laws protect people and are enforced.
8. Identify strategies to deal with peer pressure.
9. Know that the types of crime being committed, and the punishments given, have changed over time.
10. Understand how tone, cross hatching and shading can affect the look of an artistic composition.
11. Databases contain information that can be stored and searched.

Excel

The key assessment outcomes of this unit are:

Explore 2: Family traits: DNA detectives

Explore 10: Crime and punishment

Explore 6: Theory of evolution

Explore 13: My identity

Explore 7: How do animals and plants adapt?

Exhibit

Pupils set up a 'forensic workshop' to share all of the learning from this theme. Include information about evolution and inheritance and their artwork on the theme of identity.

Pupils act as forensic scientists, ready to share their knowledge and demonstrate some forensic techniques such as fingerprinting.

Possible wider experiences:

Visit a local science museum to discover more about DNA or invite in an expert from a university to share their knowledge of DNA and inheritance.

Flipped learning opportunities

- 1) Research DNA: What is it? Who discovered it? Make a model DNA helix or a DNA-inspired piece of art.
- 2) Research crime and punishment through the ages in more detail. When was the police force developed?

Family learning suggestion

Gather photos of family members and make a family tree. Can pupils spot inherited characteristics?

Cultural awareness

Key piece of music

This is Me – The Greatest Showman

Grieg's *Piano Concerto*

I Am What I Am – Gloria Gaynor

Key piece of art

The False Mirror / The Son of Man – René Magritte

The Mona Lisa – Leonardo da Vinci

Key poem

Billy McBone / Scissors – Allan Ahlberg

The British – Benjamin Zephaniah