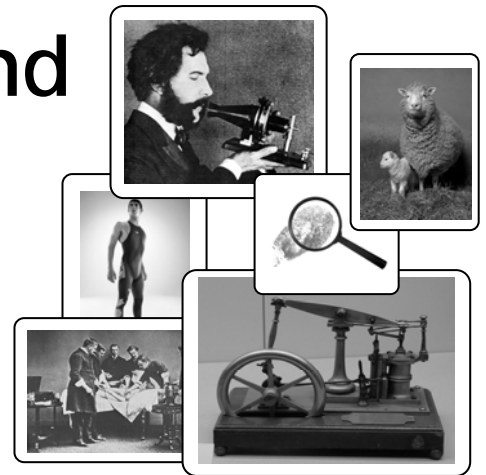


Scottish Inventions and Discoveries Fact File

The Scottish Inventions and Discoveries Fact File is a collection of 12 examples of innovation either developed in Scotland or by a Scot. Some of the innovations may be very familiar whereas some may well be a bit of a surprise!



The Fact File provides pupils with the opportunity to research and explore important inventions and discoveries of the past alongside current innovative research and development taking place in Scotland today. The Fact File lends itself to a variety of instructional activities such as those outlined below and is curriculum linked to match 'A Curriculum for Excellence' covering outcomes in

Science > Topical Science

Timeline: What happened when?

- Pupils construct a timeline and place each invention/ discovery on the appropriate position on the timeline.
- This could be a written or creative exercise involving models, posters, and newspaper articles or perhaps pupils may be encouraged to develop their own novel way of presenting the information contained within the timeline.
- Alternatively, creating a timeline could become a practical activity using the length of the classroom as the timeline and pupils to represent each invention.
- Pupils may research other Scottish inventions and discoveries and add them to the time line.
- Pupils should explore areas of scientific research currently being conducted in Scotland and consider what the timeline may look like in the future.

The Dragon's Den: Invest in me!

- Provide each pupil with a balance of £500,000 (in monopoly style money).
- Divide pupils into pairs/groups and assign each pair or group an invention card.
- Pupils should research their invention and construct an advertising campaign and sales pitch designed to encourage people to buy or invest in their invention.
- Each pitch should highlight what the product is/does, the work involved in its development, how it will change people's lives and also whether it will make money.
- Pupils will have the opportunity to hone a range of skills including drama, role-play and presentation skills as they pitch their inventions to the rest of the class. Each pupil will then decide whether they want to invest their 'money' in the invention.

Balloon Debate: Who should go?

- Set the scene - 12 inventors are in the basket of a hot air balloon. Unfortunately, the basket is too heavy and the balloon is losing height rapidly. In order for the rest to survive, 7 inventors must be thrown from the balloon. Who should go?
- Divide pupils into pairs and assign each pair an invention card. Pupils must then assume the roles of the inventor/ scientist who developed their assigned invention.
- Pupils should research not only the importance of the invention to society but also any further contributions and developments made by the inventor.
- Either through presentations or class debates, pupils should present structured arguments for the survival of their inventor.

Claim to fame: That was my idea!

- The majority of inventions and discoveries have more than one individual claiming 'That was my idea!'. It's not surprising then that there is often controversy surrounding who really invented this or whether that person really discovered that.
- Selecting an invention, encourage the class to research whether anyone else has claimed to be its inventor.
- Initial research may consider questions such as:
 - Who is widely accepted to be the inventor?
 - Does everyone around the world agree?
 - How did each scientist claim to have stumbled across his discovery/invention?
 - What was the timeline for the claims?
 - Are there any patents involved?
- Based on the research evidence collected, pupils should conduct a debate or trial. With teacher assuming the role of judge, pupils may assume the roles of each inventor involved, key witnesses, professional experts, lawyers and Jury.
- Pupils then present the case to decide whose claim they believe the evidence truly supports.