



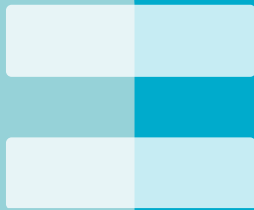
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Classroom Resource

Fear Factor

How our senses
and brains respond to
and perceive danger



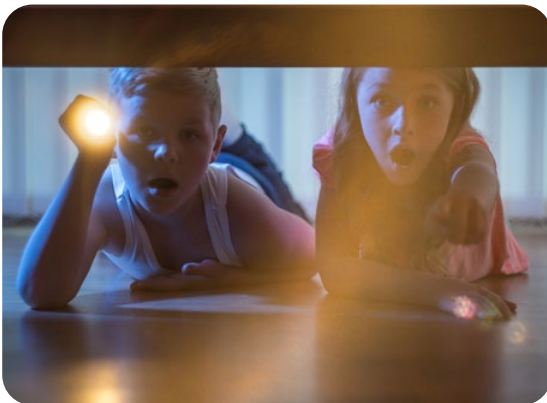
Investigation

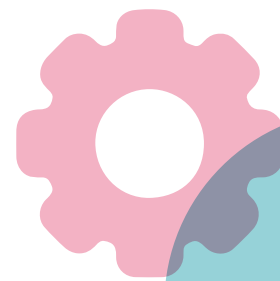
Fear Factor – How our senses and brains respond to and perceive danger

Class Level - Senior

Curriculum Links

Strand:	Living Things, Data
Strand Unit:	Human Life, Interpreting data
Curriculum Objectives:	Identify and understand ways in which the body protects itself against disease and infection, make hypotheses and carry out experiments to test them
Skills Development:	Questioning, Observing, Recording and Communicating, Analysing
New words / vocabulary:	Phobia
Focail nua:	Fóibe (Phobia), Eagla (Fear), Rabhadh (Warning)
Cross curricular links:	Literacy, SPHE
Equipment / materials	<ul style="list-style-type: none"> • Paper and pens. • Whiteboard and markers. • Small stickers or markers. • Access to a computer with internet access, and a printer for printing pictures and survey sheets. • ICT programmes such as Excel for graphing.





Engage

Trigger questions:

- What sorts of things are people afraid of? Animals (wasps, spiders, dogs), situations (heights, tight spaces, open spaces, public speaking etc.) or objects (germs, fire, water).
- Does everyone have the same fears?
- What do you think are the most common fears that people have?
- Are people's fears always justified?
- What reasons might people have for a particular fear? – previous experience, TV, learning from other people etc.
- What is a phobia?
- Can you name any types of phobias?
- Are there any physical symptoms of fear? – heart rate, sweating etc.



Exploring:

Begin this lesson with a discussion about fear. Ask the learners to consider items that people might consider dangerous. You might use some images here to help trigger discussion.

Ask learners to use ICT to locate images of animals, items around their home or situations that might be considered dangerous. These can be used for class discussions and also for surveys if required. They can use the emoji for fear or being scared on their survey sheet.

A walking debate exercise might be used for learners to assess reactions to the different images within the class or they might simply discuss which of the animals, objects or situations they would find frightening and why? What reactions might they have and how would their senses be involved in recognising danger?

What reasons might people have for being afraid of an animal, object or situation? Is it something that could cause injury, disease or infection or is it something that might cause a strong physical reaction such as hyperventilation or raised heart rate.

Background information:

Our bodies perceive danger through the use of our senses, and our prior knowledge. This can include stories we have been told by our friends and families, our life experiences (something that has happened in the past) or stories or news we have seen or heard through the media.

Real-world application:

Animals that we perceive as dangerous often suffer from persecution or hunting as people kill them to protect themselves or livestock. Story telling was often used as a way of passing warnings down from generation to generation. Often people's fears of animals or outdoor environments stem from a lack of exposure and understanding and can lead to negative outcomes such as destruction of biodiversity. Information and stories provided through media can influence how people perceive danger, and the rise of fake news can impact how dangerous we feel something is, when there may be little or no danger in reality.

Investigate

Starter question:

In order to assess people's perceptions of danger or determine the most common fears, different groups within a class could come up with their own questions to investigate and decide what groups to survey (parents and siblings, a selection of classes from across the school, specific class groups). Examples of questions might include but are not limited to the following.

- Which animal is the most feared in our school?
- What is the most commonly held fear among children in 4th class?
- What is the most commonly held fear among parents of children in our class?
- Which of the following are people in our class most afraid of: heights, water, tight spaces?



Predicting:

Before carrying out their survey groups can make a prediction based on their chosen questions e.g., I predict that more adults than children will be afraid of spiders.

Conducting the investigation:

Each group can design a survey sheet to carry out their investigation within the school, or with their parents and teachers. Based on their chosen starter question, they may choose to limit their survey to just animals or certain situations or provide a selection for people to choose from.

If designing the survey sheets, ask learners to think of questions they will ask and how they will rate the participant's answers. Will they be asked to rate their fear of each animal / object on a scale of 1 to 5? Will they be asked to rank their fears from highest to lowest? If so, they might want to add in some things that would not normally be perceived as dangerous.

Ask learners to think about any surveys they have been asked to fill in. How were they asked to respond to the questions?

How will they gather and compile data and compare participants' results? They will need to consider this when designing the questionnaire.

Sharing data/results:

Once surveys have been completed students should compile the data. They might plot their data on a bar chart or pie chart. Graphs could be hand drawn or plotted using Excel or other ICT programmes or even constructed as 3D graphs or human bar charts.

Answers to any open ended questions on the survey sheets might be displayed as word clouds, video pieces or sentences on speech bubbles.



Take the Next Step

Adapt for home:

Carry out the survey with your family. Surveys can be carried out face to face within your family at home or with wider family groups online through video calls or communication Apps with the help of parents. Carry out the survey with family and friends living in the other parts of the world. Discuss differences for people living in different parts of the world.

Adapt for junior level:

Using a simple survey, ask learners to share five things they feel are dangerous or scary. Using stickers or markers, ask the class to vote on their top five from the full list of learner suggestions. Discuss the reasons why these items are dangerous or perceived as dangerous. Using one example (such as crossing a busy road, a snake, a sharp knife) ask learners to draw a picture of how their senses are used to assess danger.

Follow-up challenge/project/citizen science link:

- Carry out a language lesson on different phobias. Note ten phobias and ask the learners to match the phobia to an image of the item, for example:

Chorophobia - fear of dancing.

Ablutophobia - fear of washing and bathing.

Geliophobia - fear of laughter.

- Can your class help dispel someone's perceived fear? Carry out a class project on one of the items that was rated as dangerous, but which some learners feel may not be a real danger to them, such as spiders, bats or sharks in Ireland. Ask students to find out more information about the biology of the animal, and how they engage with people. Do they still consider them dangerous after increasing their knowledge? Can they design a media campaign to help show this animal in a positive light?
- Submit data to the national biodiversity data centre on spiders in your class/school or home. Link to a conservation project in another part of the world where people work with conserving animals that people fear such as sharks or snakes.
- Discuss how animals are portrayed in the media, and the use of storytelling to communicate dangers from one generation to another. Can learners identify a story which they were told and the danger it was trying to highlight? Can they find stories from around the world?

