

Lesson Plan

NEUROHEADWAY

Neuroscience Into Education

Lesson objective	Introduction	Main activity	Reflection	Success criteria
To understand the concept of ageing	Watch an animation based in: https://www.youtube.com/watch?v=BkcXbx5rSzw	Ask the students to work in small groups searching for the lifetime of some types of cells like blood cells, neurons or epidermis cells.	Why do we age?	Students will be able to understand that ageing is a reflection of the ageing of our cells.
To reflect on the increasing ageing of world population	Explain to children the concept and causes of ageing population. Give examples of your country and location.	Ask students to work in small groups and prepare a slide on the ageing status of your country.	Do we have more aged peoples than 100 years ago?	Students will be able to identify
To understand the consequences of ageing	Explain to children simple consequences of ageing	Students should search in newspapers, literature, social media, examples of consequences of ageing.	There are foreseen problems on ageing?	Students will be able to recognise ageing as a problem for our societies.
To identify neurons as the functional unit of the brain	Explain briefly what are the brain and a neuron.	Create a neuron model, using clay, playdough, styrofoam, recyclables, food or any available material.	Why neurons have this shape? How neurons connect each other? What is direction of information in a neuron?	Students will be able to understand: i) neurons as the functional unit of the brain; ii) the anatomy of a typical neuron; iii) the importance of the neuron shape to its function; iv)

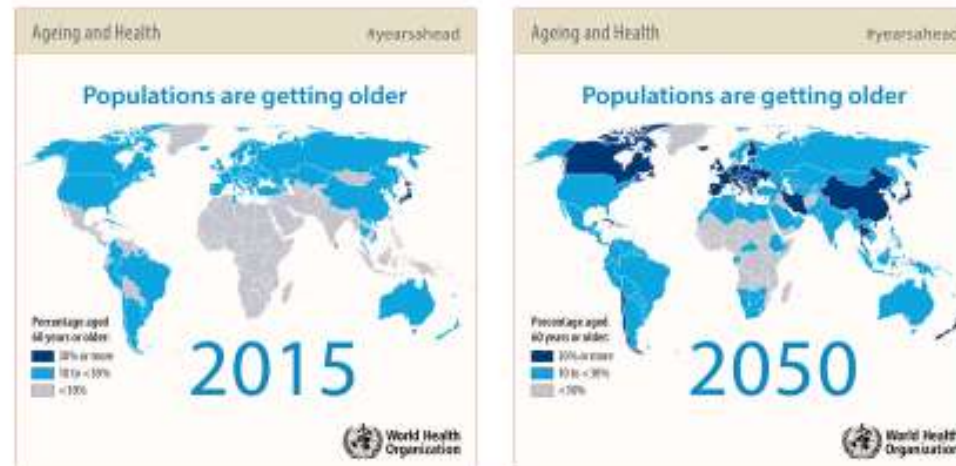
To understand the link between brain aging and neurodegenerative disease	Explain to children that neurodegenerative diseases typically arise as a consequence of ageing.	Give students several cards of causes and consequences of brain ageing. Ask them to identify which ones are also related with the development of neurodegenerative diseases.	Why aged people developed more neurological diseases?	Students will be able to identify different causes and consequences of brain ageing as being also related with the development of neurodegenerative diseases.
To identify forms of delaying brain ageing	Ask the children to reflect on possible strategies to delay brain ageing	Ask students to work in small groups listing possible forms of delaying brain ageing.	It is possible to delay brain ageing?	Students we become aware that brain ageing is irreversible but there are forms of slightly delay it. Students will also be familiar with the concept of healthy ageing.

Power point Example

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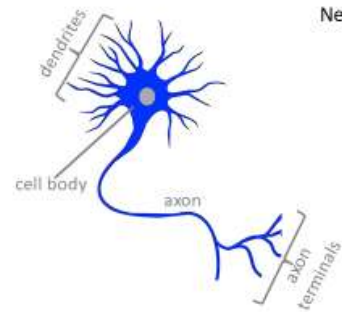
On the ageing



Ageing consequences

- Individual
 - Health issues
- Social
 - Supporting structures
- Economic
 - Increase in expenses
- Geo-political
 - Unbalance between countries

Neurons



Neurons are our brain basic building blocks.

Most neurons have a cell body, an axon, and dendrites.

Neurons receive and transmit information through electrical and chemical signals to other neurons and cells.

Brain ageing causes

