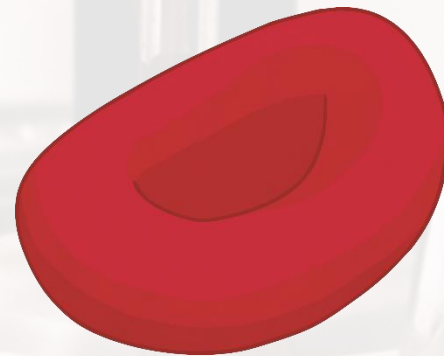
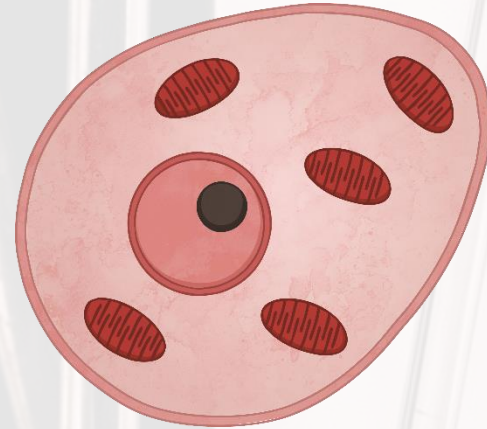


# Stem Cells

twinkl

# What's the Link?

They are all specialised cells





## Learning Objective

- To evaluate the effectiveness of stem cells in medical treatment.

## Success Criteria

- To be able to explain the difference between a stem cell and a differentiated cell.
- To identify the medical conditions stem cells may be able to help overcome.
- To present a balanced argument about the use of stem cells for medical treatment.

# Cell Differentiation

Differentiation is the process by which a cell becomes specialised. Stem cells have not yet become specialised.

There are two types of stem cells: embryonic and adult.

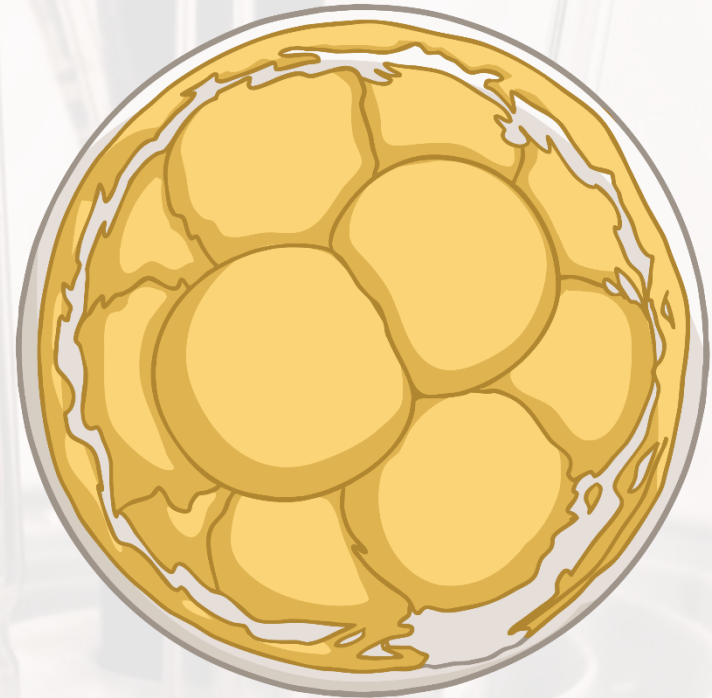
Stem cells:

- can replicate many times;
- have the potential to become different types of cell.



# Embryonic Stem Cells

- These are found in human embryos.
- They have the potential to turn into any type of cell and can multiply perpetually (time and time again).



# Adult Stem cells

- These are found in certain places in the human body, such as bone marrow.
- They cannot turn into any type of cell; only certain types, such as blood cells.



# Stem Cells in Medicine

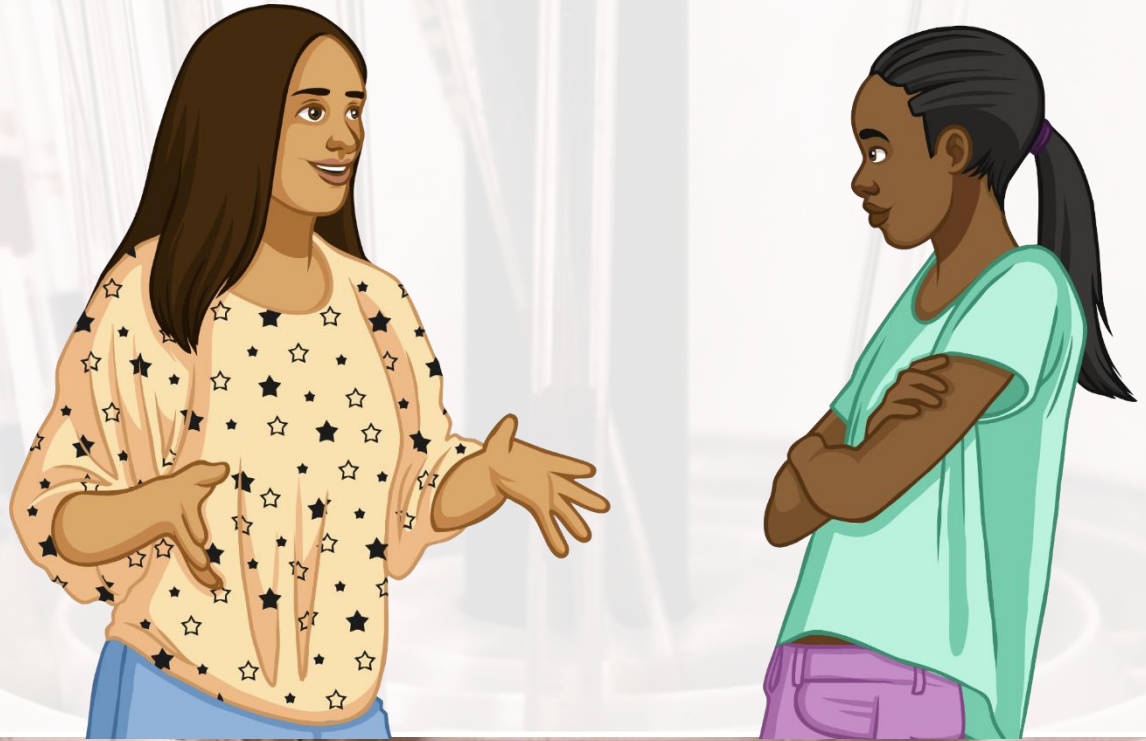
Watch the following video link on stem cell research and medicine.

<http://www.bbc.co.uk/education/clips/zc68sg8>



# Stem Cells Viewpoints

- You have been given the viewpoints of a range of different people and professionals. Each person offers their opinion on stem cell research.
- How do you feel about stem cell research? Whose viewpoint is most like yours?





# Stem Cells Information Booklet

Create an information booklet on stem cells. Be sure to include:

- an explanation of what cell differentiation is;
- a definition of stem cells;
- names of the different types of stem cells and their features;
- different viewpoints on stem cell research (this must be as balanced as possible).



You have 20 minutes to complete this task.



twinkl

10ml : 0.1  
Ex 20°C

PRECICOLOR  
(HBC)