



40 Credits



20 Credits

Mind map

Meet the experts - Part 1

THIS IS YOUR FIRST TEAM TASK

You have now heard from three speakers about stem cell research.

Your will be given a set of tasks to help you find out more about the research.

Before you look at the tasks think about:

- What do you already know about stem cells?
- What else do you want to know?
- Where could you find that information?

Make a list or draw a mind map showing what you know and what you want to know.

Fill in the answers as you find them out.

THIS IS A TEAM TASK

You are going to get the chance to meet the experts who gave today's talks. You will only have a short time with them so you must think of questions to ask them before you meet them.

Decide four questions to ask each scientist.

As a group:

- Think about what you would like to ask the scientists
- Do you want to ask them both the same questions or do you want to ask them different questions?
- You could ask them about their opinions on stem cell research, their own research work, or how they became a scientist.

It's up to you...

If the group disagrees about what questions to ask, how will you decide?

When you have agreed on your questions, go to HQ to make an appointment with the experts.





Meet the experts - Part 2

For and against

THIS IS A TEAM TASK

TEAM TASK - DURING RESEARCH TIME

THIS TASK WILL ONLY BE GIVEN OUT AFTER YOUR QUESTIONS HAVE BEEN APPROVED BY HQ AND YOU HAVE BEEN GIVEN AN APPOINTMENT

- When you hear a new argument, either for or against stem cell research, write it down on the big sheets of paper so everyone can see it.

You only have **five minutes** with each expert.

By the time you get to the debate this afternoon you should have lots of arguments to use.

- Use a stopwatch to keep them to time.
- Ask the experts the questions the group decided on.
- Make sure they **answer** all your questions.
- Take **notes** of their answers.





Evidence cards

How do you get embryonic stem cells?

TEAM TASK - DURING RESEARCH TIME

- Every time you learn a new **FACT** about stem cell science, write an 'evidence' card.

These cards should be one or two sentence statements of **EVIDENCE** or substantiated **FACTS** that they you have found out about stem cell research during your other tasks.

They should not be opinions.

FOR 2 TEAM MEMBERS

- You have some pictures, arrows and captions.
- Put them together in the correct order to produce a flow chart.

Every arrow should have a label to go with it.





Newspaper and magazine articles

You have each been given two newspaper and magazine articles about stem cell research. These have been taken from different publications

The articles may fit into a number of different categories.

They may be written to provide information or, they may be written to give the writers opinion.

- Read each article and try to work out if they are providing information or an opinion or both.
- Sort the articles into categories according to whether they provide opinions or information.
- Some articles may have both information and opinion - go through the articles and **highlight** the sections where the writer is giving an opinion.
- Are the articles balanced? Why? Why not?

Do you agree with you team mate about the categories they have put their articles in?



Where and what

FOR 2 TEAM MEMBERS

Where can you get stem cells from?
Are they the same wherever they come from?

You have blue, purple and green cards.

- BLUE cards tell you the type of stem cells
- PURPLE cards tell you where they come from
- GREEN cards tell you what they are capable of

Match a purple and green card to each blue card.

5 bonus credits for matching the grey card to the correct type of stem cells.





40 Credits



15 Credits
per cartoon opinion

How do you clone an embryo and get stem cells from it?

FOR 2 TEAM MEMBERS

- You have been provided with some pictures, arrows and captions.
- Put them together in the correct order to produce a flow chart.

Every arrow should have a label to go with it.

You may want to compare this with your teammates' flow chart "How do you get embryonic stem cells?"

Cartoon opinions

FOR 2-4 TEAM MEMBERS

Think about:

If someone states their opinion, do they say why they think that?

What sort of thing is likely to influence someone's opinion on stem cell research?

What is a stereotype?

Would you expect a religious person to have the same opinion as someone suffering from Parkinson's disease?

Now, draw a cartoon to show different people discussing stem cells.

You could include:

- Someone suffering from Parkinson's Disease
- A genetic scientist
- A religious person
- Yourself!

Try to include the **REASONS** for people's opinions.





60 Credits



5 Credits
per country

Stem cells and the law How was UK stem-cell law made?

FOR 2 TEAM MEMBERS

There were a number of stages in the making of the current UK law to allow Embryonic Stem Cell Research.

You have been provided with a number of cards that name each step in the process.

Place these cards in the correct order to make a flow chart.

For bonus credits, you may add extra notes to the cards if you wish, to help you explain the process.

You have been provided with information to help you complete this task. Some of the other research you and you team do today will also help you.

Remember to ask your team mates if they have any information that will help.

Your first card should be the Human Fertilisation and Embryology Act of 1990.



Stem cells and the law The law in different countries

FOR 2 TEAM MEMBERS

You have been provided with information about stem cells and the law in different countries.

Fill in the table provided to show the legal position of as many of different countries as you can on the following subjects:

Medical research using human embryos	Making embryos for research only (rather than using spare embryos for research)	Using human embryos to produce stem cells	Therapeutic cloning (cloning a human embryo to obtain stem cells identical to a patient)	Reproductive cloning (making a new baby that is genetically identical to another person)
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You can use information from the information sheets you have been given to help you complete this table.

Other group members may find out about other country's laws as they carry out other research tasks so remember to talk to your teammates so that you can add their information to the table. PTO



Presentations

THIS IS A TEAM TASK

Some things to think about...

Do different countries have different laws?

What factors might influence the laws in the different countries?

BONUS CREDITS MAY BE GIVEN FOR GOOD ANSWERS TO THESE QUESTIONS.

BONUS CREDITS MAY ALSO BE GIVEN FOR INFORMATION ON COUNTRIES NOT MENTIONED IN THE INFORMATION SHEETS.

You have to prepare a presentation for the rest of the group.

The presentation:

- Must involve at least three group members
- May be in a style of your choosing
- Must last no more than 4 minutes
- Should include your group's opinions on stem cell research
- Must include the work from at least three of the research tasks.

