

NEW CUTTING EDGE

UPPER INTERMEDIATE

Module 11 – Interfering with nature

1 You are going to use the internet to find out more information about cloning. Type in: <http://gslc.genetics.utah.edu/units/cloning/index.cfm>. When the page appears, click on **What is Cloning?** Read the information and answer these questions:

a What exactly is cloning? _____

b What two cloning methods are mentioned?

2 You are now going to find out some of the reasons given for cloning. Go back to the main page and click on **Why Clone?** Scroll down the page to find four reasons for cloning given here. What are they?

1 _____

2 _____

3 _____

4 _____

Do you think any of these are good reasons for cloning? Talk to your partner.

3 Go back to the main page and select **Cloning Myths**. What are the two misconceptions about cloning listed here?

1 _____ 2 _____

4 Return to the main page and click on **The Clone Zone**. You can see the history of cloning in two different ways by clicking on either **The Clone Zone** or on **Cloning Timeline Navigator**. Answer these questions:

a What animals were cloned in 1885? _____

b Which scientists were involved in nuclear transfer on frogs? _____

c What year was Dolly the sheep cloned? _____

d What was the name of the female monkey cloned in 1997? _____

5 Go back to the main page and select **What Are Some Issues In Cloning?** In the yellow box on the right of the page there are five examples given of how your views might change depending on who you are. Look at the different examples given and discuss with your partner what each of these people would think of cloning.

Module 11 Interfering with nature

TEACHER'S NOTES:

Aim: For students to find information in English on the internet about cloning. This webquest could follow on from the text on page 117, part of which is about cloning.

Time: Approximately 45 minutes.

Materials: Photocopies of the worksheet for each student.

- 1 Tell students they are going to find out more information about cloning . Check that students have opened the correct page and have selected **What is Cloning?** Students read the information to answer the questions.
 - a What exactly is cloning? **Cloning is the creation of an organism that is an exact genetic copy of another. This means that every single bit of DNA is the same between the two.**
 - b What two cloning methods are mentioned? **Artificial embryo twinning and somatic cell nuclear transfer**
- 2 Tell students that they are now going to find some of the reasons given for cloning. Students return to the main page and click on **Why Clone?** Students scroll down the page to find the four reasons for cloning given.
 - 1 **Cloning for medical purposes**
 - 2 **Reviving endangered or extinct species**
 - 3 **Reproducing a deceased pet**
 - 4 **Cloning humans**Students talk to their partners and decide if any of these are good reasons for cloning.
- 3 Students go back to the main page and select **Cloning Myths**. The two misconceptions about cloning listed are: 1 **instant clones** 2 **carbon copies**
- 4 Check that students have clicked on **The Clone Zone**. To see the history of cloning students can either click on **The Clone Zone** which gives an animated journey through cloning or on **Cloning Timeline Navigator** which gives a timeline of cloning. Students answer the questions.
 - a What animals were cloned in 1885? **Sea Urchins**
 - b Which scientists were involved in nuclear transfer on frogs? **Robert Briggs, Thomas King**
 - c What year was Dolly the sheep cloned? **1996**
 - d What was the name of the female monkey cloned in 1997? **Neti**
- 5 Students go back to the main page and select **What Are Some Issues In Cloning?** In the yellow box on the right of the page there are five examples given of how views might change depending on who you are. Students look at the different examples given and discuss with their partners what each of these people would think of cloning.
- 6 If there is time, let students explore the rest of the site to find more information, which they can exchange with their partners.