

What or who would you clone?

Views about whether cloning is an ethically or socially acceptable form of biotechnology often depend on what is being cloned and why.

In this activity you will consider issues - ethical, economic and social - involved in supporting cloning or opposing it in a variety of contexts and clarify your views.

You will need:

- five cards with following words clearly printed on them:
 - Card 1. strongly agree
 - Card 2. agree
 - Card 3. neutral
 - Card 4. disagree
 - Card 5. strongly disagree.
- a length of string or cord long enough to reach from one side of the class room to the other.

What to do:

1. Attach the cards at equal distances along the string and suspend the string across the room, away from furniture and above head height.
2. Nominate someone to read out each of the possible applications of cloning technology in the list below.

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Applications of cloning technology

Cloning should be used to:

- produce high yielding crops or animals (for example, dairy cows)
 - grow your own skin cells to treat burns
 - grow adult stem cells or bone marrow cells to treat yourself for leukaemia or haemophilia
 - save species close to extinction
 - produce organs for transplant (using embryonic stem cells)
 - produce a whole human e.g. using the genes of the mother or father in a donated egg when the two parents are infertile
 - produce animals that have become extinct
 - produce a copy of yourself to provide organs if any of yours should fail
 - produce a copy of yourself after your death so that you don't really 'die'
 - produce copies of certain people, for example Einstein, Britney Spears, Kerry Packer, Nelson Mandela.
3. Then, when the first application is read out, stand beneath the card that best reflects your view on that application. Be prepared to explain why you have positioned yourself under a particular card.
 4. Nominate a student to keep a tally (on the board) of the numbers of students under each card.
 5. Repeat steps 3 and 4 for each of the applications listed.
 6. Look at the class results and write down how your opinions compare with those of the rest of the class.
 7. Working in a small group of 3 or 4 students, choose 2 of the applications of cloning to consider further. Make sure that all of the applications are considered by at least one group in the class.

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For 2 of the above applications, consider:

- whether there is an alternative to cloning (for example, replacement organs can be obtained from baboons, or pigs). Is the alternative preferable?
 - the costs (economic and social) of cloning versus the alternative (for example, it might make more sense to look after your body with a healthy lifestyle so that cloned organs are not needed)
 - how effective cloning would be, if at all (for example, an individual is a product of his/her environment, as well as his/her genetic inheritance)
 - cloning is very expensive; would it be fair if only rich people are able to clone themselves?
 - whether there are any associated moral or ethical issues and whether they would be different for different cultures or religious groups.
8. Choose a spokesperson to present the findings of your discussion to the class.
 9. Write your view on cloning. State clearly where you think cloning could be used and where it shouldn't be used. State in which areas you believe more discussion is required before you can decide.

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