Biology - Key Stage 4

## Cloning

Mrs Gibbs

## Independent task

1) Cloning is when genetically
2) Plants are cloned to protect rare species from

They are also cloned to produce crops with desirable characteristics such as:

1) Animals are cloned to produce cattle with desirable characteristics such as:
2) Animals could also be cloned for use in $\qquad$

## Cloning in plants

1. What are the two ways a plant can be cloned?
2. Suggest why a gardener may choose to clone her plants instead of produce more using seeds

Hint: seeds are produced sexually

## Independent task

1) E t involves s $\qquad$ apart cells from a developing embryo before they become s The identical embryos are then t $\qquad$ into h $\qquad$ mothers.
2) An advantage of embryo transplants over selective breeding is that:

## Put the steps of adult cell cloning in order

- An electric shock stimulates the egg cell to divide into an embryo
- The nucleus is removed from an unfertilised egg cell
- The embryo is inserted into the womb of an adult female
- The nucleus from an adult body cell is inserted into the empty egg cell

1. $\qquad$
2. 
3. $\qquad$
4. $\qquad$
