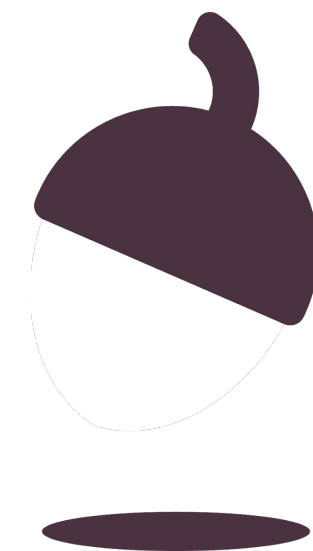


Biology - Key Stage 4

End of Topic Review - Part 2

Mrs Gibbs



OAK
NATIONAL
ACADEMY

Put the stages of protein synthesis in the correct order

- A protein chain forms as more amino acids are added
- **Carrier molecules** bring specific amino acids to join together
- A group of 3 DNA bases codes for one amino acid
- When the protein chain is complete it folds up to form a unique shape

1) _____

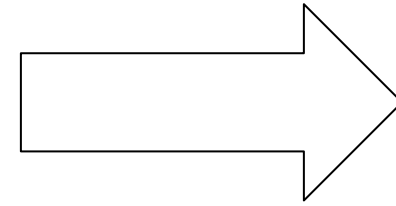
2) _____

3) _____

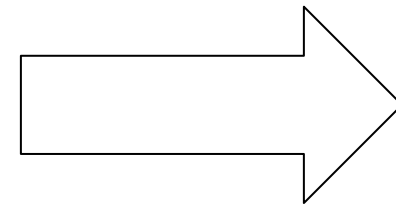
4) _____



- Tall pea plants (T) are dominant over short pea plants (t). Draw a Punnett square to show the probability, as a percentage, of the F1 generation being tall.



- Draw a Punnett square to show the probability, as a percentage, of the F2 generation being tall.



- If there were 1000 offspring in the F2 generation, how many would you expect to be tall? _____



1. Evolution is the change in the i_____ c_____ of a p_____ over time.
2. L_____ believed that organisms inherited their parents a_____ c_____.
3. D_____ and W_____ suggested the theory of evolution by n_____ s_____.



Steps of speciation: correct the mistakes!

1. There is geological separation

Correction: _____

1. There are similar environmental conditions

Correction: _____

1. Adaptations lead to new alleles

Correction: _____

1. The best adapted in each area survive, breed and pass alleles onto parents

Correction: _____

1. Speciation (population can no longer breed to produce infertile offspring)

Correction: _____



A fertilised embryo is separated and transferred to host mothers

A part of a plant's leaf, stem or root is removed and grown separately

The genetic material is removed from a cell and transferred to an empty embryo, and is given an electric shock to divide

Cells are taken from the plant and grown on agar

Cuttings

Tissue cultures

Embryo transplant

Adult cell cloning

