

Year 8 Genetics Task Sheet



Draw a sperm cell and an egg cell. Label the parts and any special features the cells have to let them do their jobs.



Make a poster or information leaflet to explain what selective breeding is.



Write a song or poem about variation, genetic disease, inheritance and natural selection.



Make a crossword (with clues) about variation, genetic disease, inheritance and natural selection.



Create a 10 question quiz (with separate answer sheet) about this topic.



Create a 3D model or produce a piece of artwork about the 'Genetics' topic.



Find 5 or more of the same type of plant (you could take your own photos or find images on the internet). List all the differences you can see between them. List all the things you can think of that can cause this variation.



Produce detailed case studies on 4 different genetic diseases. Find out exactly what causes the disease, what the symptoms are, how the disease is diagnosed, how likely it is to be passed on to the next generation (and why), any current or potential future treatments available and any other interesting information you find.



Produce a project, presentation or documentary on 5 interesting jobs that involve genetics. Include information about the qualifications needed for the job and any other useful skills to have. Find out what kind of day to day activities each job involves and any other interesting facts you discover.

Instructions

Work through the tasks on the sheet. The more stars that there are, the trickier the task. You can complete written work in the form of a booklet, leaflet or a poster. Models can be made from craft materials or even from cake!

Good luck with the work!



Resources:

Use KS3 Bitesize, KS3 Revision Guides, text books, internet searches and your own imagination.

Progress Targets:

Complete these targets in your exercise book as you make progress through the topic. Highlight these amongst your class work. They will demonstrate the progress you are making in the topic!

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| Stage 1 | <ul style="list-style-type: none"> ❖ Can give examples of characteristics and variation within a species ❖ Know what the unit of inheritance is ❖ Know that some conditions and illnesses can be caused by genetics ❖ Know what artificial selection is ❖ Know what natural selection is |
| Stage 2 | <ul style="list-style-type: none"> ❖ Know where genes are found inside a cell ❖ Know what a species is ❖ Can describe the important stages in evolution by natural selection ❖ Can give examples of selective breeding of plants and animals |
| Stage 3 | <ul style="list-style-type: none"> ❖ Can confidently use terms relating to genetics, inheritance and genetic crosses ❖ Can construct genetic cross diagrams ❖ Can describe how genetic information is organised in cells ❖ Can apply Darwin's theory of evolution to a given example of an animal |