

Module B3: Living and Growing

Topic: B3a Molecules of life

- DNA chromosomes and cells
- DNA chromosomes and cells
- structure of DNA
- Watson and Crick and the discovery of DNA

<http://learn.genetics.utah.edu/content/begin/tour/>

<http://homepage.smc.edu/hgp/history.htm#timeline>

<http://www.learner.org/interactives/dna/history.html>

http://www.bbc.co.uk/schools/gcsebitesize/science/add_ocr_gateway/living_growing/moleculesrev1.shtml

Lonsdale revision guide pages 42 and 43

Topic: B3b Proteins and mutations

- proteins
- enzymes
- mutations
- respiration
- exercise and respiration

<http://www.bbc.co.uk/learningzone/clips/respiration-in-horses/115.html>

http://www.bbc.co.uk/schools/gcsebitesize/science/add_ocr_gateway/living_growing/proteinsrev1.shtml

http://www.bbc.co.uk/schools/gcsebitesize/science/add_ocr_gateway/living_growing/respirationrev1.shtml

Lonsdale revision guide pages 44 to 46

Topic: B3d Cell division

- cell division

<http://www.cellsalive.com/mitosis.htm>

HTTP://WWW.BBC.CO.UK/SCHOOLS/GCSEBITESIZE/SCIENCE/ADD_OCR_GATEWAY/LIVING_GROWING/CELLDIVISIONREV1.SHTML

Lonsdale revision guide pages 47 and 48

Topic: B3e The circulatory system

- the heart
- circulation and blood

[http://www.bbc.co.uk/apps/ift/learningzone/clips/queryengine?ContentType=text%2Fhtml%3B+charset%3Dutf-](http://www.bbc.co.uk/apps/ift/learningzone/clips/queryengine?ContentType=text%2Fhtml%3B+charset%3Dutf-8&SuppressCaching=1&page=1&pagesize=12&results=search&config=results_pre&attrib_1=SCHOOL_LEVEL_NAME&oper_1=eq&val_1_1=&attrib_2=SUBJECT_NAME&oper_2=eq&val_2_1=&attrib_3=TOPIC&oper_3=eq&val_3_1=&attrib_4=SearchText&oper_4=eq&val_4_1=heart)

8&SuppressCaching=1&page=1&pagesize=12&results=search&config=results_pre&attrib_1=SCHOOL_LEVEL_NAME&oper_1=eq&val_1_1=&attrib_2=SUBJECT_NAME&oper_2=eq&val_2_1=&attrib_3=TOPIC&oper_3=eq&val_3_1=&attrib_4=SearchText&oper_4=eq&val_4_1=heart

<http://kidshealth.org/kid/talk/qa/blood.html>

http://www.bbc.co.uk/schools/gcsebitesize/science/add_ocr_gateway/living_growing/circulatory_rev1.shtml

Lonsdale revision guide pages 49 and 50

Topic: B3f Growth and development .

- growth
- stem cells

<http://www.tes.co.uk/teaching-resource/KS3-4-Science-Stem-Cell-Research-The-Issue-6047949/>

<http://explorable.com/stem-cell-pros-and-cons.html>

http://www.bbc.co.uk/schools/gcsebitesize/science/add_ocr_gateway/living_growing/growthdevrev1.shtml

Lonsdale revision guide pages 51 and 52

Topic: B3g New genes for old

- selective breeding
- genetic modification

<http://www.csiro.au/resources/WhatIsGM>

http://www.bbc.co.uk/schools/gcsebitesize/science/add_ocr_gateway/living_growing/newgenesrev1.shtml

Lonsdale revision guide pages 53 and 54

Topic: B3h Cloning

- cloning
- tissue culture and cuttings

HTTP://WWW.ORNL.GOV/SCI/TECHRESOURCES/HUMAN_GENOME/ELSI/CLONING.SHTML

<HTTP://STATIC.HOWSTUFFWORKS.COM/GIF/HUMAN-CLONING-DIAGRAM.GIF>

<HTTP://SCIENCE.HOWSTUFFWORKS.COM/LIFE/GENETIC/CLONING1.HTM>

HTTP://WWW.BBC.CO.UK/SCHOOLS/GCSEBITESIZE/SCIENCE/ADD_OCR_GATEWAY/LIVING_GROWING/CLONINGREV1.SHTML

Lonsdale revision guide pages 55 to 57