RESOURCES LINK

LEVEL 2 UNIT 3

VERSION 1 JANUARY 2014



Cambridge TECHNICALS

Level 2 and Level 3









WELCOME

Resources Link is an e-resource, provided by OCR, for teachers of OCR qualifications. It provides descriptions of, and links to, a variety of independent teaching and learning resources that you may find helpful.

In Resources Link you will find details of independent resources, many of which are free: where this is the case this has been indicated.

If you know of other resources you would like to see included here, or discover broken links, please let us know. We would also like to hear from you if have any feedback about your use of these, or other, OCR resources. Please contact us at <u>resourcesfeedback@ocr.org.uk</u>.

We leave it to you, as a professional educator, to decide if any of these resources are right for you and your students, and how best to use them.

To give us feedback on, or ideas about the OCR resources you have used, email resourcesfeedback@ocr.org.uk

OCR Resources: the small print

OCR's resources are provided to support the teaching of OCR specifications, but in no way constitute an endorsed teaching method that is required by the Board and the decision to use them lies with the individual teacher. Whilst every effort is made to ensure the accuracy of the content, OCR cannot be held responsible for any errors or omissions within these resources.

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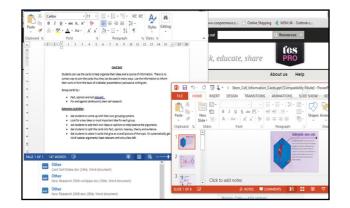








Card Sort Activity Stem Cell Research

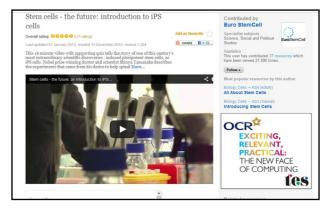


A set of cards to prompt discussion on the considerations of the nature of research into stem cells.

Supports:	OCR Level 2 Cambridge Technical Certificate/Extended Certificate/ Diploma in Science - Unit 3 'Research and Development in Science' - LO1 Understand how scientific concepts become useful applications
Cost:	Free but involves registering then Login for Teacher
Format:	Web page with a link to a PowerPoint and Word document
http:/	/www.tes.co.uk/teaching-resource/Stem-Cell-Activities-6036610/

If you know of any resources that you think should appear here, or if you identify broken links please let us know. We would also like to hear from you with your feedback about your use of any of the resources listed here. Please contact us at
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Video and quiz on Stem Cell Research



This 16 minute video with supporting quiz tells the story of one of this century's most extraordinary scientific discoveries - induced pluripotent stem cells, or iPS cells. Nobel prize-winning doctor and scientist Shinya Yamanaka describes the experiments to treat incurable spinal cord injuries.

Supports:	OCR Level 2 Cambridge Technical Certificate/Extended Certificate/ Diploma in Science - Unit 3 'Research and Development in Science' - LO1 Understand how scientific concepts become useful applications
Cost:	Free but involves registering then Login for Teacher
Format:	Web page with an embedded video
http://www	w.eurostemcell.org/toolkititem/stem-cells-future-introduction-ips-cells

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A new product to help spinal injuries.

Supports:	OCR Level 2 Cambridge Technical Certificate/Extended Certificate/ Diploma in Science - Unit 3 'Research and Development in Science' - LO1 Understand how scientific concepts become useful applications
Cost:	Free
Format:	Website
http://	/biomedicalnanotechnology.yolasite.com/current-products.php

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Google Glass

Oxford Cambridge and R



Google Glass website showing what this novel, new technology provides when a computer is embedded in a prism based optical device.

Supports:	OCR Level 2 Cambridge Technical Certificate/Extended Certificate/ Diploma in Science - Unit 3 'Research and Development in Science' - LO1 Understand how scientific concepts become useful applications
Cost:	Free
Format:	Website
	http://www.google.com/glass/start/

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TECHNICALS







High Performance Plastics produced by nanotechnology



Victrex website showing new high performance plastic technologies provided to the aerospace industries.

Supports:	OCR Level 2 Cambridge Technical Certificate/Extended Certificate/ Diploma in Science - Unit 3 'Research and Development in Science' - LO1 Understand how scientific concepts become useful applications
Cost:	Free
Format:	Website

http://www.victrex.com/en/industries/aerospace/aerospace.php

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resourcesfeedback@ocr.org.uk

Electronic e-skin



Physicsworld.com website showing new electronic e-skin and discussing its potential uses in robotics.

Supports:	OCR Level 2 Cambridge Technical Certificate/Extended Certificate/ Diploma in Science - Unit 3 'Research and Development in Science' - LO1 Understand how scientific concepts become useful applications
Cost:	Free
Format:	Website
http://ph	ysicsworld.com/cws/article/news/2013/jul/26/electronic-skin-lights-up- when-touched
lf you know	w of any resources that you think should appear here, or if you identify broken links please let us know. We would also like to hear from you with your feedback about your use of any of the resources

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A simplified view of how to design an application of science



Flow-chart diagram.

Supports:	OCR Level 2 Cambridge Technical Certificate/Extended Certificate/ Diploma in Science - Unit 3 'Research and Development in Science' –
	LO2 Understand how scientific concepts become useful applications
Cost:	Free
Format:	Website
http://www.otago.ac.nz/foodscience/productdevelopment/productdevelopment. html	
If you know of any resources that you think should appear here, or if you identify broken links please let us know. We would also like to hear from you with your feedback about your use of any of the resources listed here. Please contact us at	
	resourcesfeedback@ocr.org.uk

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A flowchart to show the detailed design process as used in industry

Week-End Special Part IV		Recent Posts
Posted in Uncalegorized by Roban Shravan on Oclo	der 9, 2010	ImShakti, an Emergency App Camera and More
Greetings everyone!		Back from Hibernation!
I could see the excitement in your commen	nts, so here we are with a e really long post (1718 words)! (I was also g	Notion Ink Adam Unboxing - The XDA Way
	vanted to know more about the electronics, the processes involved and	
suggested we continue on the same lines a	long with adding UI parts, and in this post I will try to do the same)	Archives
This part will cover 3 things:		September 2013
	Giternal milestones and targetsXI have referred a paper from Dedric	April 2012
 Understamming the Project (Product) Kraemer) (First part might be boring 	(internal indestones and targets)(I have reterred a paper from Dedric for a lot of people as it's really long, though I've tried to shorten it);	February 2012 January 2012
· The multi-tasking concept Adam is go	sing to introduce: AND	December 2011
	House (Please note, I am still in India and will leave tomorrow night,	November 2011
the current ones do not have that pro-	fessional look, but enough to shut the mouth of lots of people calling	October 2011 Sentember 2011
us Vaporware. Once I am there I will :	share more!).	September 2011 July 2011
Projects on the scale at which we are work	ing require huge knowledge networks, there are a lot of dependencies	(% June 2011
of production outsourced by Apple - 100%	6, Dell - 92%, HP - 100%, Acer - 100% 2005 data), involves tipht De	
and Development Processes, Production P	hase and Co-ordination among the OEMs and ODMs across continen	1s April 2011 March 2011
(Notion Ink is OEM and our Manufactures	rs are ODM). The scope of knowledge required in this industry is by fa	February 2011
greater than any individual can master and	d hence you need a Knowledge Network to support and create compet	
advantage and firms must tap into network	ks that cross national boundaries.	December 2010
The key stage here is the Design and Devel		Nevember 2010 October 2010
The key stage here is the Design and Devel	topment Process which follows this chain:	September 2010
		August 2010
		July 2010
		June 2010 May 2010
Predat 1		April 2010
Concept Design	Production Production Support	February 2010
Addates Contraction of Contraction	en Hannahar Hannahar Hannahar Hannahar	January 2010
Contra State	al property from Production Statement	December 2009 June 2009
Andream Read Alicente Concept Alicente	Arrester Arrester State	May 2009
	Contraction (Contraction)	April 2009

Flow-chart diagram.

Suppor	ts: OCR Level 2 Cambridge Technical Certificate/Extended Certificate/ Diploma in Science - Unit 3 'Research and Development in Science' – LO2 Understand how scientific concepts become useful applications
Cost:	Free
Format	Website
	http://notionink.wordpress.com/2010/10/page/3/
lf you	know of any resources that you think should appear here, or if you identify broken links please let us know. We would also like to hear from you with your feedback about your use of any of the resources

listed here. Please contact us at









Royal Society of Chemistry - Education



Hundreds of resources to aid the teaching of chemistry. Features chemistry demonstrations, assessment tools, handouts and worksheets, from primary age to HE.

Supports:	OCR Level 2 Cambridge Technical Certificate/Extended Certificate/ Diploma in Science - Unit 3 'Research and Development in Science' – LO2 Understand how scientific concepts become useful applications
Cost:	Free
Format:	Website
	http://www.rsc.org/education/

If you know of any resources that you think should appear here, or if you identify broken links please let us know. We would also like to hear from you with your feedback about your use of any of the resources listed here. Please contact us at
resourcesfeedback@ocr.org.uk

National STEM centre



UK's largest collection of STEM teaching and learning resources.

Supports:	OCR Level 2 Cambridge Technical Certificate/Extended Certificate/ Diploma in Science - Unit 3 'Research and Development in Science' – LO2 Understand how scientific concepts become useful applications
Cost:	Free
Format:	Website
	http://www.nationalstemcentre.org.uk/
lf you know (of any resources that you think should appear here, or if you identify broken links please let us know. We

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Resources Index

click on a resource to go to the appropriate page.

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- Card sort activity stem cell research
- Video and quiz on Stem Cell Research
- Nano-engineered gel
- Google Glass
- High Performance Plastics produced by nanotechnology
- Electronic e-skin

LO2 - Understand how scientific concepts become useful applications

- A simplified view of how to design an application of science
- A flowchart to show the detailed design process as used in industry
- Royal Society of Chemistry Education
- National STEM centre





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