

**SCHOLAR**

# ► What is SCHOLAR?

A learning resource developed in conjunction with Heriot-Watt University. It is directly linked to the Scottish curriculum so it fits perfectly with the courses YOU are sitting.

# ▶ How would I use it?

Lots of ways! You can use it to help with homework, as an additional study aid, or to help with understanding of any areas of your coursework you may be struggling with. It can also be used by class teachers as part of a lesson.

# ▶ How much does it cost?

North Lanarkshire Council pay for you to use it, so it's **free** to you.

## Getting started

Simply Google SCHOLAR and click on  
*SCHOLAR -home page*

Click on Login



SCHOLAR - Home Page x SMART Ink

scholar.hw.ac.uk

Home

**Home** Search go Text size : A A A

**Access SCHOLAR**

- Login to SCHOLAR
- Try SCHOLAR

**Resources**

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- FAQ for Exam Revision
- Newsletter
- Teachers

**Information**

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**Meet SCHOLAR**

- Core Team


**Try SCHOLAR**

Experience some of the material provided by SCHOLAR covering a range of subjects such as Mandarin, Chemistry and Mathematics.

Delve into learning materials and activities provided for teachers and students across Scotland.


To familiarise yourself with our learning environment and the facilities provided simply follow our [Try SCHOLAR](#) link. For the full list of courses available please see our [Courses and Materials](#) page.


**SCHOLAR Study Guides**



Teachers and students have told us how much they value having a printed Study Guide for their subject. We are now offering Study Guides covering CfE Higher and Advanced Higher Units/Contexts which can be purchased individually. The texts are designed to complement our online courses when students do not have access to the web - the material content is identical, but without the online interactivity that makes SCHOLAR so attractive for teaching and learning.

**SCHOLAR What's New**


**CfE AH Business Management Unit 2 live** 



CfE Advanced Higher Business Management Unit 2 is now available on SCHOLAR

[Read More »](#)


**CfE AH Physics Unit 2 Live**



CfE AH Physics Unit 2 now available on SCHOLAR

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**SCHOLAR Study Guides - CfE Advanced Higher Subjects**



Printed CfE Advanced Higher Study Guides are now available to purchase from £4.99 per unit.

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**SCHOLAR User Survey**

**Approve Cookie Policy**

By using SCHOLAR, you agree that we can place cookies on your device.

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courses.scholar.hw.ac.uk/vle/scholar/session.controller?action=home

**General**  
My SCHOLAR  
Reports  
Revision Planner

**Revision Today**  
None

**Tools**  
Special Character Bar

**Information**  
Live Online Sessions  
Technical Requirements  
Be safe on the internet


**Welcome** Fiona Crosbie of Calderhead High School  
You last worked on [CfE Higher Human Biology](#) on 16 Sep 2015 13:47


**SCHOLAR News** 1 / 4


[CfE AH Business Management Unit 2 live](#)  
CfE Advanced Higher Business Management Unit 2 is now available on SCHOLAR


You are currently enrolled on the following 13 courses: [Study Guides](#)


Support Materials for National 5 French


**National 5 Mathematics** 


CfE Higher Art and Design (Fashion/Textile Design) 


CfE Higher Business Management 


CfE Higher Chemistry 


CfE Higher French 


CfE Higher Human Biology 

CfE Higher Mathematics 

CfE Higher Physics 

CfE Advanced Higher Business Management 

CfE Advanced Higher Mathematics 

Help with Maths Input 

Succeed with SCHOLAR

Your courses  
will appear  
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# SCHOLAR

A programme of Heriot-Watt University  
Prògram Oilthigh Heriot-Watt



My SCHOLAR > CfE Higher Chemistry >

Logout ▶

## CfE Higher Chemistry

[Advanced Search](#)



Text Size: A A A

You last worked on [The Periodic Table](#) on 16 Sep 2015 16:01

[Show](#) / [Hide](#) all units

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Activities

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Live Online Sessions

Technical Requirements

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▶ Unit 1: Chemical changes and structure

▶ Unit 2: Nature's chemistry

▶ Unit 3: Chemistry in society

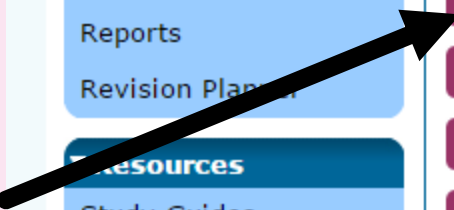
▶ Unit 4: Researching chemistry

**Authored by:** Emma Maclean (George-Heriot's School)

**Reviewed by:** Diane Oldershaw (Menziesshill High School)

**Previously authored by:** Peter Johnson, Brian T McKerchar and Arthur A Sandison

Select a unit



Revision Planner

Resources

- Enable Topic Outline
- Study Guides
- Activities

Revision Today

None

Tools

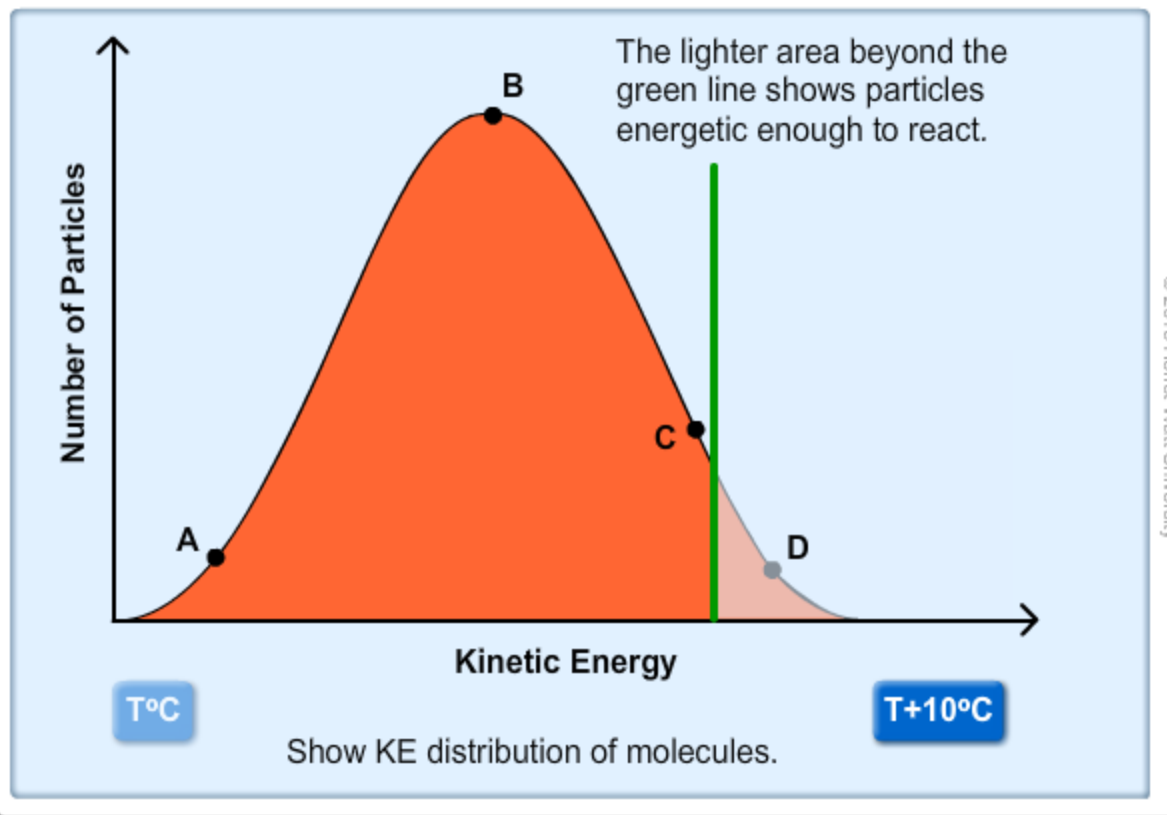
Special Character Bar

Information

Live Online Sessions

### Controlling the Rate - Temperature & Kinetic Energy instructions

Use the controls to change the temperature and evaluate the reaction.



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**Question 1**

How has the increased temperature affected the value of the activation energy?

- Increased
- Decreased
- Not changed

You can access tutorials, questions and interactive animations



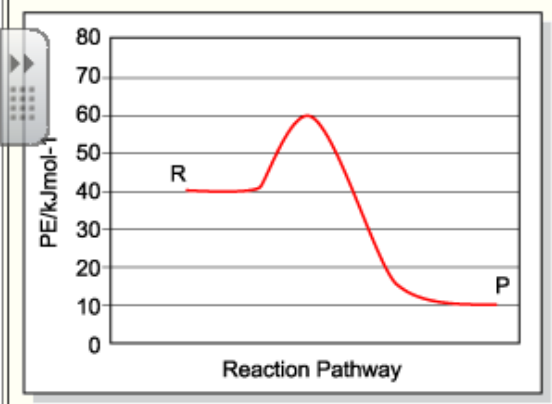
You can try  
online  
assessments

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← → ↻ assess.scholar.hw.ac.uk/cue/cae-scholar.exe/default?SID=b74c099b70910ec243f20be01182a4a1

Q4 Potential energy diagrams Fiona Crosbie i Exit 4

The potential energy diagram below refers to the reversible reaction involving reactants R and products P.



4.1) What is the value of the activation energy for the forward reaction (reactants to products)?

✓

[ 1 ] [ 1 ]

4.2) What is the enthalpy change for the forward reaction (reactants to products)?

-30 kJ mol<sup>-1</sup>

-20 kJ mol<sup>-1</sup>

16:06

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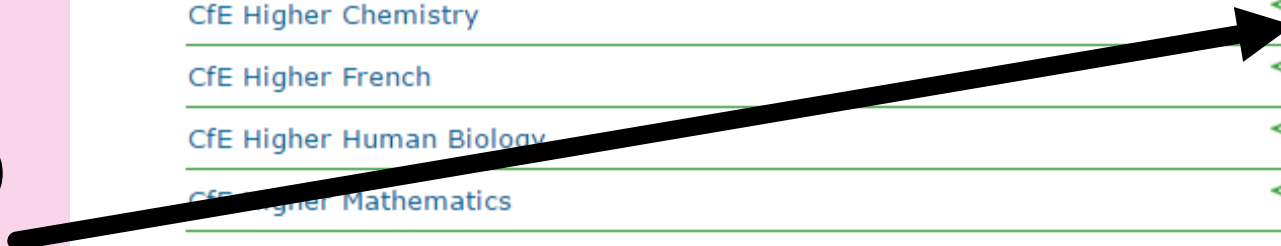


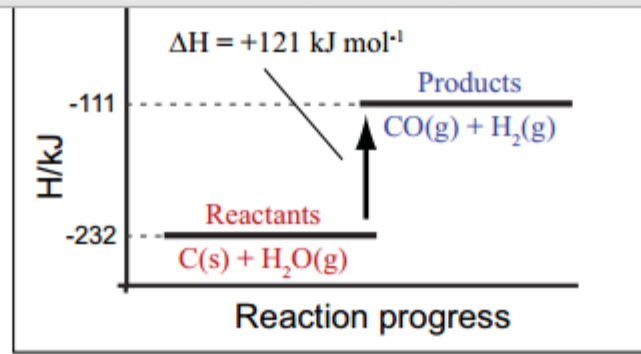
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- CfE Higher Physics 
- CfE Advanced Higher Business Management 
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Clicking here will take you to study guides





Water gas potential energy diagram

**Key Point**

A potential energy diagram can be used to show the energy changes for a reaction.

Enthalpy change is the energy difference between products and reactants. Enthalpy change can be calculated from a potential energy diagram. Enthalpy change has a negative value for exothermic reactions and a positive value for endothermic reactions.

**What produces this energy change?**

The chemical energy in molecules is stored in the bonds. When a reaction occurs the bonds in the reactant molecules are broken and the atoms rearrange to form new bonds with different energies in the products.

For example, think of making ammonia from nitrogen and hydrogen.

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Use this like an online textbook

► Can SCHOLAR help me improve my Grades?

Yes - if you use it!

Other advantages of SCHOLAR.....

# If you're off sick.



You message your friends anyway, so why not do a bit on SCHOLAR to help you catch up more quickly when you get back?



# If we get a bad winter.

Don't just crawl back  
under the duvet!  
Put snow days to  
good use - get on to  
SCHOLAR





▶ You will be issued your username and password in the next few days.

Try not to lose them!

▶ If you can't get on to SCHOLAR, or if one of the courses you are sitting is not there, see me.

▶ Any Questions?

**Exam  
Results**

**A**



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Using SCHOLAR  
can seriously  
improve your  
grades!