



# Post-16 Transition Support

## A Level Chemistry

### Transition Project

In preparation for your course, you should make a 1-page summary for each of the following topics using the research structure from [Cornell notes](#):

- Task 1: The chemistry of fireworks  
*What are the component parts of fireworks? What chemical compounds cause fireworks to explode? What chemical compounds are responsible for the colour of fireworks?*
- Task 2: Why is copper sulfate blue?  
*Copper compounds like many of the transition metal compounds have got vivid and distinctive colours – but why?*
- Task 3: Aspirin  
*What was the history of the discovery of aspirin, how do we manufacture aspirin in a modern chemical process?*
- Task 4: The hole in the ozone layer  
*Why did we get a hole in the ozone layer? What chemicals were responsible for it? Why were we producing so many of these chemicals? What is the chemistry behind the ozone destruction?*
- Task 5: ITO and the future of touch screen devices  
*ITO – indium tin oxide is the main component of touch screen in phones and tablets. The element indium is a rare element and we are rapidly running out of it. Chemists are desperately trying to find a more readily available replacement for it. What advances have chemists made in finding a replacement for it?*

### Suggested Reading or Viewing

#### On line Resources:

[Rough science – the Open University – 34 episodes available](#)

[A thread of quicksilver – The Open University](#)

[10 weird and wonderful chemical reactions](#)

#### Chemistry in the Movies:

##### Dantes Peak 1997: Volcano disaster movie

Use the links to look at the Science of acids and how this links to the movie.

<http://www.open.edu/openlearn/science-maths-technology/science/chemistry/dantes-peak>

<http://www.flickclip.com/flicks/dantespeak1.html>

<http://www.flickclip.com/flicks/dantespeak5.html>

##### Fantastic 4 2005 & 2015: Superhero movie

Michio Kaku explains the “real” science behind fantastic four

<http://nerdist.com/michio-kaku-explains-the-real-science-behind-fantastic-four/>

<http://www.flickclip.com/flicks/fantastic4.html>

#### Books:

Periodic Tales: The Curious Lives of the Elements by Hugh Aldersey-Williams

The Science of Everyday Life: Why Teapots Dribble, Toast Burns and Light Bulbs Shine by Marty Jopson

Bad Science by Ben Goldacre

Calculations in AS/A Level Chemistry by Jim Clark