

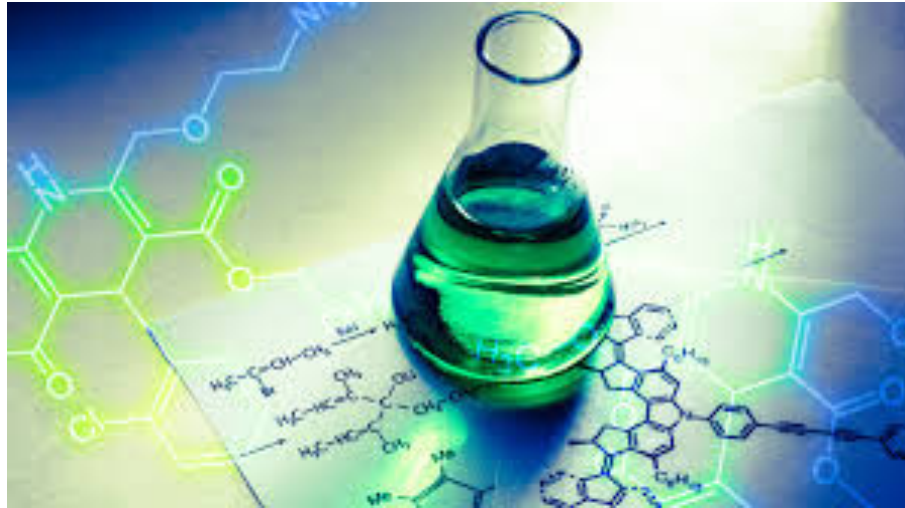


# Chemistry



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**Chemistry** is the scientific discipline involved with elements and compounds composed of atoms, molecules and ions: their composition, structure, properties, behaviour and the changes they undergo during a reaction with other substances.



# POSSIBLE DEGREE OPTIONS

According to [bestcourse4me.com](https://bestcourse4me.com), the top five degree courses taken by students who have A-level Chemistry are:

- Chemistry
  - Biology
  - Pre-clinical medicine
  - Mathematics
  - Pharmacology.
- For more details, go to the [bestcourse4me.com](https://bestcourse4me.com) website, or UCAS.



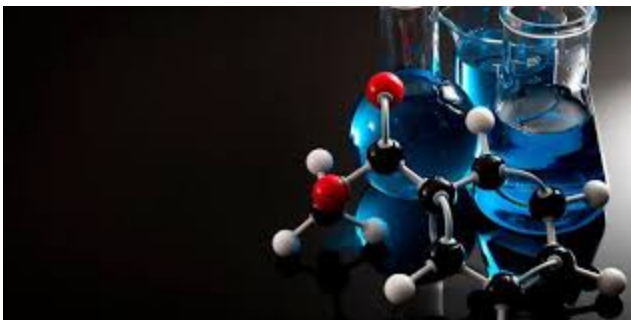
# Which career appeals to you?

- Chemistry at A-level or degree opens up plenty of career opportunities, such as:
- analytical chemist
- chemical engineer
- clinical biochemist
- pharmacologist
- doctor
- research scientist (physical sciences)
- toxicologist
- environmental consultant
- higher education lecturer or secondary school teacher
- patent attorney
- science writer



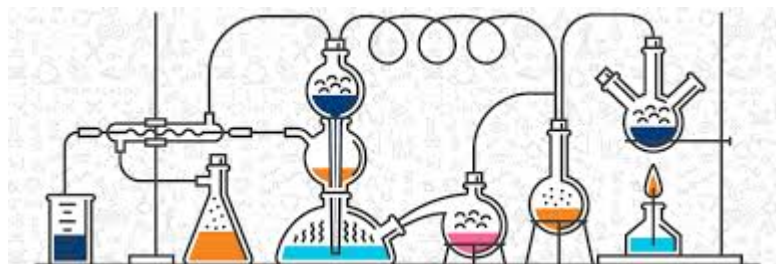
# Organic Chemistry

- Organic chemistry is one branch of chemistry (alongside physical and inorganic) that you will study at A level. It is the study of carbon chemistry including physical and chemical properties, the reactions, the synthesis of and the testing of organic molecules with different functional groups.



# Task 1 : Organic Chemistry

- [https://www.ted.com/talks/jakob\\_magolan\\_a\\_crash\\_course\\_in\\_organic\\_chemistry](https://www.ted.com/talks/jakob_magolan_a_crash_course_in_organic_chemistry)
- Watch the video above. Then prepare one information sheet about each of the following molecules. Make it as detailed as possible but make sure that you include structures, uses and interesting facts:
- Adrenalin
- Morphine
- Caffeine
- Vancomycin



# Maths in Chemistry

- Maths GCSE equips you with an important set of skills that need to be applied in different situations at A level chemistry. From geometry and trigonometry required to look at 2D and 3D shapes of molecules to using standard form and significant figures in pH calculations to determining rates of reaction using tangents on graphs, there are just a few of the skills you will use.
- The five areas of maths skills required are: arithmetic and numerical computation, handling data, algebra, graphs, geometry and trigonometry.



## Task 2: Maths in Chemistry

- Please access the worksheet labelled 'Maths in Chemistry Transition Skills' at the address below to complete the maths tasks.
- You can find the answers in the same folder on the student shared area.
- [My Files](#) » [Student Shared Area](#) » [Student Resources](#) » [Science](#) » [Chemistry](#) » [Yr 11 Revision 2020](#) » Transition work

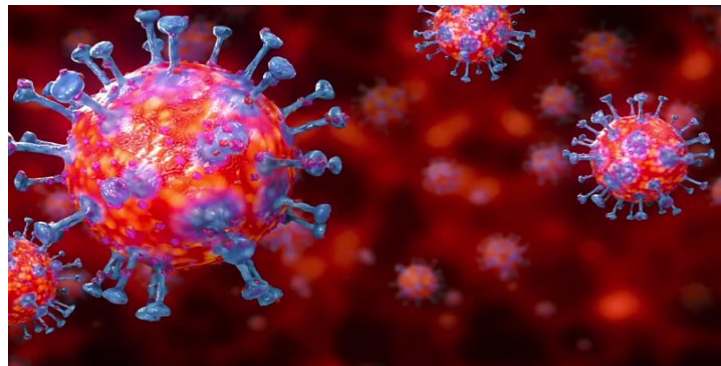


# Coronavirus

- Coronavirus has had a huge effect on all our lives. Chemistry is massively important in understanding how the virus interacts with systems in the body, with potential medicines to reduce its effect or with a vaccine by considering chemical interactions on a molecular level.

# Task 3: Coronavirus at a Molecular level

- Access the worksheet labelled 'Corona Virus Task' at the address below. Read the article then complete the sheet. The answers are attached for you to self assess.
- [My Files](#) » [Student Shared Area](#) » [Student Resources](#) » [Science](#) » [Chemistry](#) » [Yr 11 Revision 2020](#) » Transition work



# Practical Chemistry

- There are a variety of practical skills which you will develop through the A level chemistry course and are delivered through the Required Practical Activities. Being able to carry out essential practical tasks to obtain accurate and precise data in chemistry is important. The five areas of practical skills covered include: following instructions, investigative approaches, safety, making and recording observations and researching, referencing and reporting.

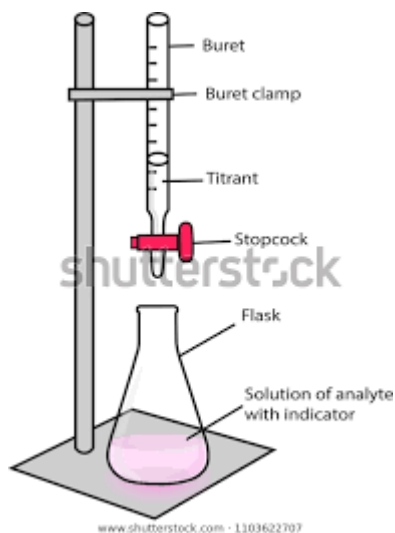
# Task 4: Practical Chemistry

- Access the work sheet labelled 'Practical Chemistry' at the address below and complete. The answers are in the same folder for you to self assess.
- [My Files](#) » [Student Shared Area](#) » [Student Resources](#) » [Science](#) » [Chemistry](#) » [Yr 11 Revision 2020](#) » Transition work



# TASK 5 : Titration

- Click on the link below and press 'quick start' to work through the levels and complete the tasks about this important analytical technique.
- <http://www.rsc.org/learn-chemistry/resources/screen-experiment/titration/experiment/2>



# Task 6: New Scientist

- Choose an article that grabs your interest. Give a brief summary of the article then add your own thoughts and opinions about it. What further information would you like to know?, what further research could be done?

- <https://www.newscientist.com/>



# Task 7: The Infinite Monkey Cage

- Access the podcasts from the link below. Choose one that grabs your attention and listen to it then write a brief summary. Include your own thoughts and opinions.
- <https://www.bbc.co.uk/programmes/b00snr0w/episodes/downloads>



# Useful Resources

- Website for AQA A Level Chemistry

<https://www.aqa.org.uk/subjects/science/as-and-a-level/chemistry-7404-7405/specification-at-a-glance>

- S-cool, the revision website: [A Level Chemistry Revision](#)
- Chemguide: [Helping you to understand Chemistry](#)
- Twitter: [@ChemistryALevel](#)
- The Royal Society of Chemistry: <https://www.rsc.org/>