

# Year 11 into 12 – Chemistry Summer work

## July 2024

### Introduction:

Curiosity about chemistry is crucial for A Level students as it reveals the fundamental principles that govern matter and its interactions. This curiosity helps students understand everything from the composition of substances to the reactions that power life and technology. By exploring chemistry, students develop problem-solving skills, engage in critical thinking, and open-up opportunities in fields such as medicine, engineering, and environmental science. Ultimately, a passion for chemistry enriches students' understanding of the world and equips them to innovate and address pressing global challenges.

Last year's Nobel prize in Chemistry was awarded for the field of nanoscience.

Quantum dots are remarkable substances that bridge the gap between matter at the atomic and molecular scale and bulk matter.

This is the publication that links to it.

[advanced-chemistryprize2023.pdf \(nobelprize.org\)](#)

[Nobel Prize lessons - Chemistry prize 2023 - YouTube](#)



Scientific Background to the Nobel Prize in Chemistry 2023

## QUANTUM DOTS – SEEDS OF NANOSCIENCE

The Nobel Committee for Chemistry

### Task

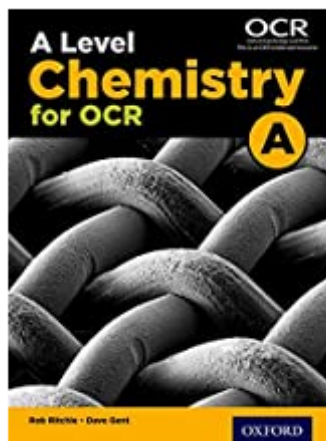
Produce an A4 summary sheet, information booklet, a Power Point or record yourself doing a short presentation on the history of Nanoscience and what Quantum dots are, what is the big deal is about them? Where could this new technology could take us?

## How to prepare:

You will need to be organised throughout your A level studies, so you will need an A4 (lever arch) folder with at least 6 folder dividers which you can bring to every lesson

## Required resources

You are advised to purchase your own copy of the required textbook to bring to lessons.



## Optional resources

