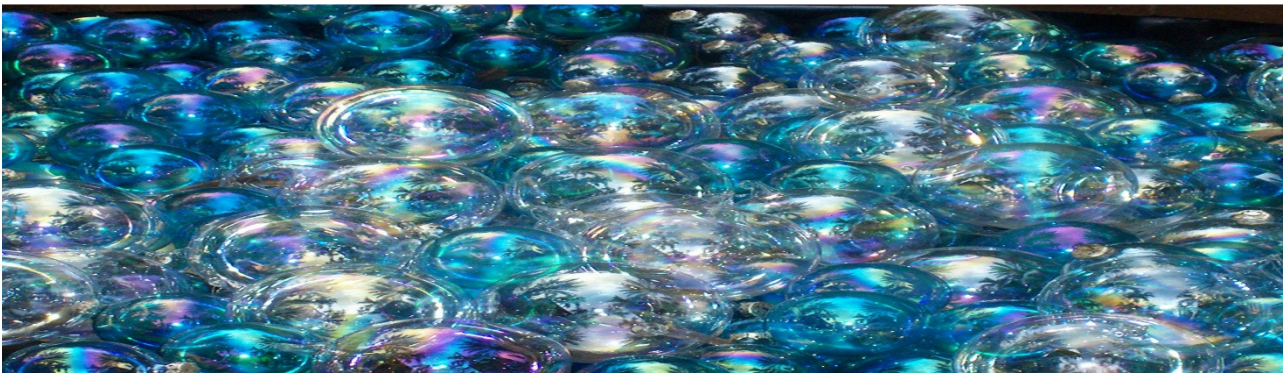
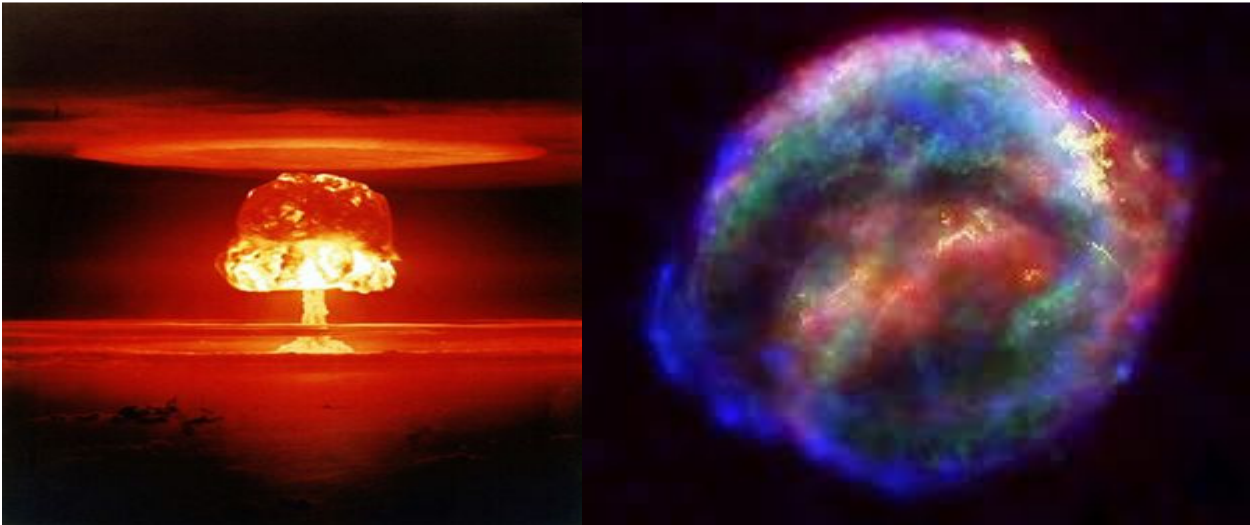


Bubbles, Bangs and Burning



Science Covered in this project

Science Covered	Completed
metals & acid	
metals & carbonates	
burning	
burning fuels	
states of matter	
separating mixtures	
distillations	
solubility	
metals & non-metals	
periodic table	
noble gas properties & uses	
halogen properties & uses	
theories for organizing elements	
gases & diffusion	
numbers of atoms in molecules	
metals & water	
metal & acid	
reactivity series	
reactivity & burning metals & periodic table	
metals & acid	
metal carbonates & acid	
salts	
metals & water	
metals & oxygen	
metal displacement	
exothermic & endothermic reactions	
chemical reactions	
precipitation/dissolution/gas production/conservation of mass	
conservation of matter	

This work is the most basic and can be covered in levels 3-6

This work is more complex and is level 4-6

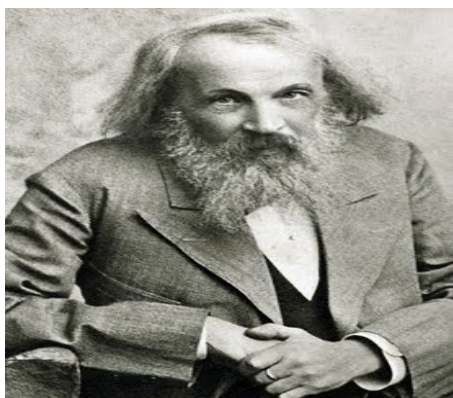
These are the most challenging topics and will be covered at levels 4-7

Project Aim

The Nobel Prize for Chemistry (amongst others) was founded by Alfred Nobel who made his vast fortune by inventing a way to make dynamite safer and easier to use. Everything you have covered in this project is about ways chemical energy can be stored, used and combined to make new chemicals. Understanding chemistry is one of the tools needed to become an expert Scientist. Some of the wealthiest people the world has seen have been inventors and scientists that have shaped our planet. Freebrough Academy has an Enterprise specialism, so your challenge is to use your knowledge and change the world! What will you do with your future???

Over this half term your teacher will share with you all of the materials covered on the previous page. You should tick each box when you covered the work in your lessons. This work will help you to have the knowledge needed to complete your assignment. The assignment will be due to handed in during the last week of each half term. If you do not have access to the internet, remember the Academy has homework clubs that run during the week and the library is available after school for all students.

Full details of the assignment will be posted in the Science area of the Academy website.



Your Assignment

The Academy is committed to raising standards of literacy across all areas of the curriculum, so you should remember to use the VCOP strategies you have met in your lessons.

At any time you can ask your teacher for advice and guidance on how to complete your project assignments.

You have this half term to complete the following:

- Make a leaflet about the three main states of matter. You should show how the particles are arranged in solids, liquids and gases and explain the differences between them. You should use diagrams to explain your information.
- Design and complete a table to show an example of the following different chemical reactions. For each reaction you should give examples of chemicals used, products made and use in industry: Combustion, decomposition, neutralisation, precipitation, endothermic and exothermic.
- Use the internet or books to research the scientists involved in the development of the Periodic Table of Elements. You should produce a word, publisher or powerpoint document to show your work. It may help you to develop a time line showing the different scientists in time order of their research.

It is expected this assignment will take you between 6-10 hours over the course of this project.