

Risk

Progress involves exposing ourselves to, and considering the impact of, forms of danger, harm, uncertainty or opportunity.

Knowledge Harvest:

Crime scene - students are given a list of potential poisons (e.g. oxalic acid, citric acid etc) and research them to establish the cause of death.



Analytical thinker

I confidently ask questions to deepen my understanding and challenge assumptions. I can independently explore issues, events or problems from lots of different viewpoints in detail. I can gather and understand information independently to solve complex problems and make decisions. I can independently analyse information critically and judge how valuable or relevant it is.

1. Key Question:

How are acids and alkalis used in everyday life?

Skill Development:

Working independently to research information and find solutions to problems caused by acids and alkalis.

Project Outline:

Students will design a leaflet/ news report/ poster about the effect of acids and alkalis on your health (acid erosion of teeth, acid indigestion, treating bee & wasp stings, skin and eye damage etc)

Project exit point

Circus of leaflets/news reports/ posters around the room, pupils to peer assess and give feedback

Suggested duration: 2 hours

2. Key Question:

What things are needed for fire to burn and how can they be put out safely?

Skill Development:

Students gather information and use their knowledge to solve the best way of tackling fires. Independently explore issues with fires such as how 'burns victims' lives will be impacted.

Project Outline:

Role play of how to put out fires safely to be filmed. Role play must include how fires are started, problems caused by burning and how to select the most appropriate way to extinguish the fire

Project exit point

Show films and peer assess

Suggested duration 2 hours

3. Key Question

Which indigestion remedy works the best to neutralise excess stomach acid?

Skill Development:

Students work in pairs to plan their investigation where they explore issues such as risks of the practical and decide how the risks will be minimised. They discuss how to manage the risks safely and categorise them as high, medium or low.

Project Outline:

Pupils use spatula measures of powder and add to the acid in the flask until neutralisation occurs. they will use a pH chart to assess whether this has been reached.

Project exit point

Pupils draw a bar graph of their results and use to recommend which is the best indigestion remedy to use in a TV advert which they present to another group

Suggested duration 3-4 hours



Creative INITIATOR

I am able to think creatively by generating and exploring a range of different ideas. I am able to ask challenging questions to extend my thinking and question assumptions. I am able to connect my own and others ideas in inventive ways to find solutions. I am able to try out alternatives and adapt ideas as circumstances change

Exit Point:

You are going to provide the public with information about fire safety explain how to protect against the danger of fires and explosions. Decide how you will do this e.g. booklet, demonstration, videoclip, advert, role play etc. Test and test review