

## Science Year 5 Spring 1 and 2

## Could you be the next chemistry inventor?

### What will I know by the end of the unit?

Some materials can be changed by squashing, bending, twisting and stretching.

Materials can be natural or man-made.

### What will I know by the end of the unit?

Materials that will dissolve are known as soluble. Materials that won't dissolve are insoluble.

Irreversible changes, like burning, cannot be undone.

Dissolving occurs when the particles of certain solids mix with the particles of certain liquids.

Mixtures can be separated out by methods like filtering and evaporating.

Heat can travel easily through thermal conductors. Metals are good thermal conductors, as they allow heat to move through them.

Not all solids will dissolve, and not all liquids will allow solids to dissolve.

Thermal insulators do not let heat travel through them easily. Some fabrics, wood and plastics are good thermal insulators.

Melting, freezing, evaporating, condensing and dissolving are examples of reversible physical changes.

Heat always travels from a warmer area to a cooler one.

Spencer Silver's accidental discovery resulted in the invention of the Post-It Note.

### Key Vocabulary

### Definition

#### property

the quality or characteristic of a material. For example, strong or flexible

#### dissolve

when a soluble solid mixes with liquid so completely that it will disappear

#### soluble

able to be dissolved, especially in water

#### insoluble

does not dissolve in water

#### sieving

used to separate insoluble solids

#### filtering

used to separate an insoluble solid from a solution

#### evaporating

turn from liquid into vapour

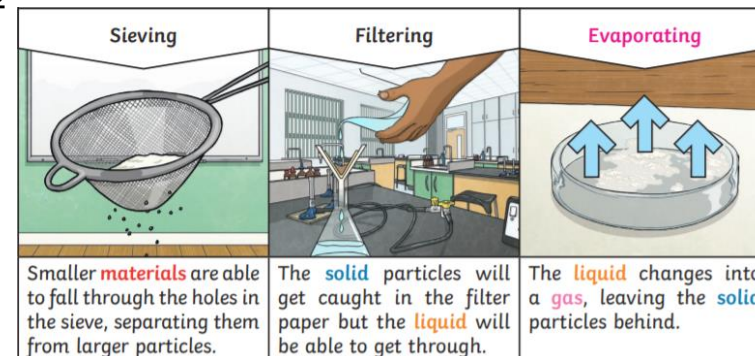
#### reversible

a change that can be reversed – you can get back what you started with

#### irreversible

a change is permanent – new substances are made and you can't get the original ones back

### Key diagrams

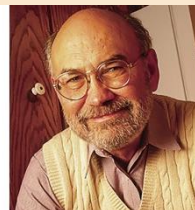


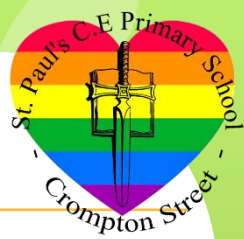
### Key Texts

Snackable Science  
Experiments: 60 Edible  
Tests to Try and Taste –  
Vanstone



### Key people Spencer Silver





**What do I need to know from previous topics?**

Jesus was <b>Jewish</b> .	Christians believe Jesus is <b>God in the flesh</b> .
Christians believe that Jesus' <b>birth, life, death</b> and <b>resurrection</b> were part of a longer plan by God to restore the relationship between humans and God.	The land of Israel had been attacked and invaded since its creation 1,000 years previously. In 586 BCE the Jewish people were taken into <b>exile</b> in <b>Babylon</b> .

**What will I need to remember for future learning?**

The <b>Old Testament</b> pieces together the story of <b>Creation</b> (the universe and human life made by God), <b>Fall</b> (humans sinned and were in need of rescue) and <b>People of God</b> (a plan to save humanity).	At the time, the Messiah was expected to be a <b>prophet</b> who would re-establish the line of <b>King David</b> on the throne in <b>Jerusalem</b> , site of the Temple of God, drawing all nations to God.
The <b>New Testament</b> presents Jesus as the answer: the <b>Messiah</b> and <b>Saviour</b> . Through the incarnation, God came to live among humans.	Christians believe that Jesus fulfilled the expectations of the Messiah and therefore is the <b>anointed one</b> . Jewish people do not think Jesus is the Messiah.

**Key Vocabulary**

**Definition**

**Messiah**

the one believed to be sent by God to be humanity's saviour. Many Christians believe this person to be Jesus.

**Incarnation**

God's transformation from being fully God to fully human (a physical form): Jesus.

**Saviour**

Someone who has saved another from danger.

**prophecies**

a statement that says what is going to happen in the future.

**The transfiguration**

When Jesus' appearance changed: his face shone like the sun and his clothes were as white as the light.

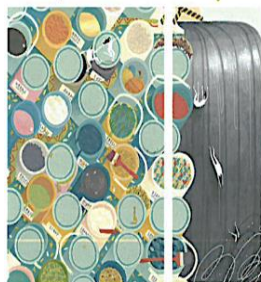
**The Trinity**

The Christian belief that there is One God, who is Father, Son and Holy Spirit.

Key images



**CREATION FALL**

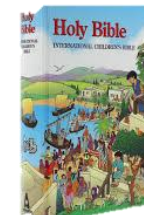


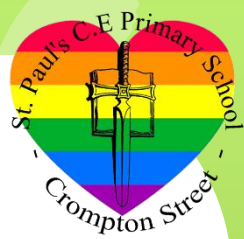
**PEOPLE OF GOD**



Key Texts

- Isaiah 7:14, 9:6-7, 11:1-5
- Luke 9:28-36
- Micah 5:2
- Matthew 1: 18-24, 2: 1-12





**What do I need to know from previous topics?**

In the AD400s, towards the end of Roman rule, Britain was being attacked by the Picts and Scots from the north, and the Anglo-Saxons from the sea.

In about AD410, the last Roman soldiers were ordered to leave.

The Anglo-Saxons chose to live in small villages. This was very different to the Romans who had lived in Britain previously.

**What will I need to remember for future learning?**

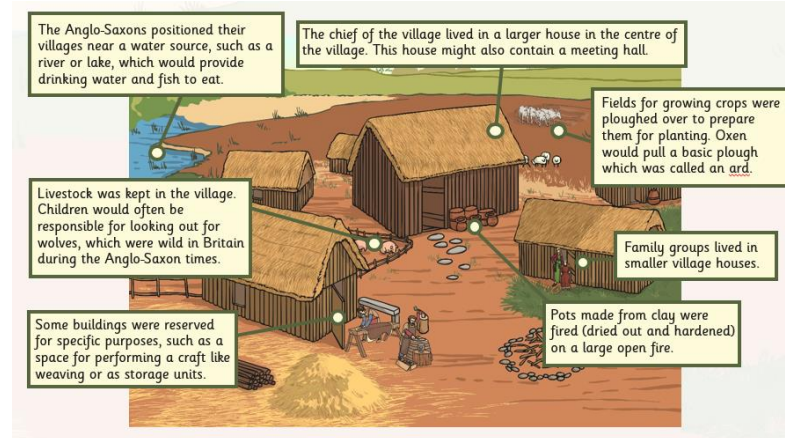
The early Anglo-Saxons were not Christians, they were pagans. Like the Vikings and the Greeks, the Anglo-Saxons believed in many gods and had many superstitions.

For a long time, England was not one country. Anglo-Saxon kings ruled lots of small kingdoms across the land.

**How does this topic impact on our lives today?**

Many of the names of towns and villages in Britain originate from Anglo-Saxon times.

The Anglo-Saxons slowly converted the majority of Britain to a Christian religion.



Important people  
King Offa  
Alfred the Great

Key Texts  
Anglo Saxons (Explore)  
- Bingham  
Beowulf-  
Crossley-  
Holland.

Key Vocabulary	Definition
<b>Mercia</b>	an Anglo-Saxon kingdom, known today as East Anglia, Essex, Kent and Sussex.
<b>shires</b>	Saxon lands were divided into shires, which helped to make up the counties we have today
<b>kingdom</b>	different areas of Britain formed and named by the Anglo-Saxons.
<b>thane</b>	an important Anglo-Saxon over person who collected taxes in the kingdom.
<b>churl</b>	a lower-class Anglo-Saxon (often a poor farmer) regarded more highly than a slave.
<b>Witan</b>	a council that helped the Saxon king rule.

## Art Year 5 Spring: David Hockney- Yorkshire Landscapes (Drawing and Printmaking)

### What do I need to know from previous topics?

We can draw with lots of different materials to make different lines. Some materials make thicker lines than others.

Observational drawing can include drawing something directly in front of you, around you or copying from an existing image.

Printing makes a copy of something. There are lots of different ways to print.

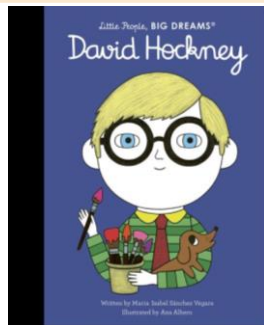
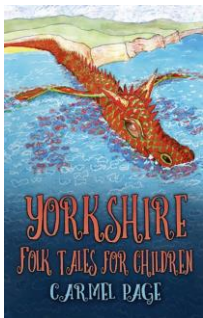
Many artists are inspired by nature and we can see this influence in their artwork.

David Hockney was part of the Pop Art movement, taking inspiration from popular culture to influence his work. Andy Warhol also produced Pop Art, often using the printing process to produce his work.

### What will I need to remember for future learning?

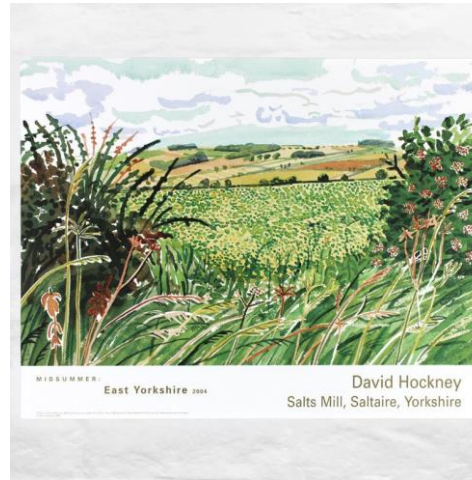
A monoprint is unique as each image can only be produced once. However, different colours can be layered to add depth to the print.

### Key texts



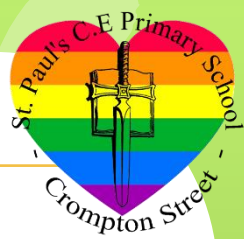
### Key artists and artwork

David Hockney-  
Midsummer: East Yorkshire collection



Key Vocabulary	Definition
<b>line drawing</b>	a drawing done using only narrow lines, without blocks of shading
<b>overlay</b>	to lay or place one thing over or upon another
<b>layer</b>	letting one application of ink dry before adding another
<b>monoprint</b>	the process of making a print using mark making.





What will I know by the end of the unit?	
Recognise that habits can have both positive and negative effects on a healthy lifestyle.	Most young people are not forced by their friends into risk-taking behaviour. Instead, they feel under pressure to conform with their friends' behaviour.
Recognise that there are positive and negative risks and explain how to weigh up risk factors when making a decision.	There are several health risks associated with smoking including: increased risk of heart disease, lung cancer, stroke or asthma
Explain why someone might give a dare and suggest ways of standing up to someone who gives a dare.	All medicines are drugs but not all drugs are medicines. The ways in which medicines are used can be helpful or harmful.

## Key Dates

6<sup>th</sup> February-Safer Internet Day

17th February-Random acts of kindness day

5<sup>th</sup>-9<sup>th</sup> February- Children's Mental Health

Week

### Mini Minds:



Braveasaurus



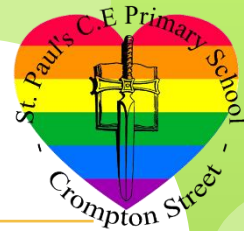
Dreamasaurus

Key Vocabulary	Definition
<b>habit</b>	something that a person does repeatedly
<b>addiction</b>	an urge to do something that a person may feel hard to control
<b>risk</b>	an action which has potential benefits but also potential negative consequences.
<b>dare</b>	a challenge, especially to prove courage.
<b>conform</b>	behave according to socially acceptable conventions or standards. For example, behaving a certain way to fit in with friends.
<b>drug</b>	a substance people take to change the way they think, feel or behave. When medical drugs are taken correctly, they can help our bodies.



### British Values – Individual Liberty

- We value everyone's input and opinions.
- We try to see things from other's point of view.
- We are encouraged to make choices for ourselves in a safe and supportive environment.



Design brief: To research, design and prepare a salad for a member of staff, based on their individual requirements.

What will I know by the end of the unit?	
A third of the food we eat should come from the Fruit and vegetable group and a third should come from the Potatoes, bread, rice, pasta and other starchy carbohydrates group.	How to design and make a salad based on the requirements of an individual.
Ingredients can be grown, reared, caught and processed	Mayonnaise and salad dressings are usually high in fat, salt and sugars so should be eaten less often and in smaller amounts.
Fruit and vegetables can be prepared by peeling, chopping, slicing and grating.	Some of the food we eat is seasonal in the UK. This means it only grows at certain times of the year. In the UK, some food is also grown in glasshouses. This means that the food is available at different times to that grown outside.

Key Texts  
<https://www.bettycrocker.com/SaladRecipesforChildren>

Techniques and diagrams:



Key Vocabulary	Definition
<b>reared</b>	where animals are brought up for the purpose of providing food
<b>processed</b>	any food that has been altered in some way during preparation.
<b>carbohydrates</b>	essential food nutrients to give our bodies energy
<b>fibre</b>	keeps our digestive system healthy and fibre can help us feel fuller for longer too. It can also help reduce the risk of heart disease, diabetes and some cancers.
<b>bridge hold</b>	a method used to cut food safely when using sharp knives. It is especially useful for cutting circular items into halves and quarters, e.g. tomatoes, apples.
<b>claw grip</b>	the best method to use when food needs to be cut into slices or diced.