Stafford Manor High School

Year 8 Autumn Term 1

Core Knowledge

- Art
- Computing
- Design Technology (DT)
- English
- French
- Geography
- History
- Maths
- Performing Arts
- Physical Education (PE)
- Science
- SEL
- Textiles

ART

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. How to print using fruit & vegetables?

- Fruit and vegetable printing is a fun and creative way to make art or decorate various items. There are a variety of fruit and vegetables you can use to print with such as: apples, potatoes, carrots, celery, bell peppers, and lemons. You can print onto paper or fabric. You can use paint or printing ink.
- You need to cut the fruit or vegetable into a section where it will look interesting when printing, such as down the middle and including the seeds.
- You will then paint over the fruit and veg and print them onto paper or fabric. You can also add a variety of papers to make it more eye-catching.
- Once the prints are dry, they can be worked back into using coloured pencils, fine liners and felt tip pens.

2. What is a collage?

- A collage is a piece of art created by combining various materials, such as photographs, newspaper or magazine clippings, fabric, found objects, and other items, onto a surface to form a unified composition. You can also have a specific subject or hobby which is a collection of pictures, that is also a collage.

3. How to create a Fruit or Vegetable collage.

- You will be choosing an image of a fruit or vegetable to draw out, this will be the base to your collage.
- You will be using a variety of coloured paper to create the collage. When creating the collage, you will need to think about the different tones of colours and textures involved.
- Try to create a balanced composition by distributing the colours and shapes evenly across the collage.
- Consider using contrasting colours to make the fruits and vegetables stand out.

COMPUTING

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. What is a computer network?

Two or more computers connected together

2. What is a protocol?

A set of rules

3. What is used to connect computers together?

Network cable

4. What is a hub?

A hub connects computers together. All computers in a network can be plugged into a hub, instead each needing to be connected individually to every other computer.

5. What is a server?

A server is a powerful computer that provides services.

6. What is a router?

A router connects networks together (often connecting one network to the Internet)

7. Name four examples of wireless technologies used to communicate.

Bluetooth
WiFi
4G
5G

8. What is bandwidth?

Bandwidth is the amount of data that can be moved from one point to another in a given time.

9. What is the difference between upload and download?

Upload is when the computer is sending data to the Internet.
Download is when it is receiving it.

10. What does TCP stand for?

Transmission Control Protocol

DESIGN TECHNOLOGY

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. What is food hygiene?

- This is the term applied to the processes put in place to ensure safety when working in the manufacture of food products.

2. Control measures when preparing food

- Washing of hands
- Wear an apron
- Tie up hair
- Clean surfaces and equipment
- Avoid cross contamination

3. Why it is important to wash hands

- Bacteria/germs can be found on all surfaces that you come into contact with and they will cause contamination in the food preparation area.

4. What are some Tier 3 terms I need to know?

- **Moulds** – these are devices we use to form materials into a set shape i.e. chocolate
- **Silicone** – a material that is used to create moulds
- **Hygiene** – ensuring that food preparation surfaces are clean and fit for purpose
- **Bacteria** – germs that can be found on all surfaces that can contaminate food
- **Batch** production – where a set number of products are made i.e. a dozen rolls
- **Mass** production – where a large quantity numbering greater than a hundred are produced
- **Continuous** production – where automated machinery runs 24 hours a day producing products

ENGLISH

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. In Chapter 1 of *Animal Farm,* why does Old Major call for a meeting?

- He wanted to share his vision of a revolution and to inspire the other animals to seek freedom from human oppression.

2. The seven commandments created on Animal Farm are:

- 1.Whatever goes upon two legs is an enemy
- 2.Whatever goes upon four legs, or has wings, is a friend
- 3.No animal shall wear clothes
- 4.No animal shall sleep in a bed
- 5.No animal shall drink alcohol
- 6.No animal shall kill any other animal
- 7.All animals are equal

3. Who led The Battle of the Cowshed?

- The animals, led by Snowball the pig, are victorious in warding off the humans, only to succumb later to a new dictator.

4. Why did Napoleon instruct the dogs to chase Snowball off the farm?

- Napoleon justifies his takeover by telling the other animals that Snowball was a traitor secretly working for the human farmers. Because of Snowball's heroism in the battle, Napoleon becomes very jealous of Snowball.

5. Which of the commandments did Napoleon change?

- "No animal shall sleep in a bed" became "No animal shall sleep in a bed **with sheets**."
- "No animal shall drink alcohol" became "No animal shall drink alcohol **to excess."**
- "All animals are equal" became "**some animals are more equal than others."**

6. What is an allegorical story?

- The Oxford English Dictionary defines allegory as a story that uses symbols to convey a hidden or ulterior meaning, typically **a moral or political one.**

7. What are the themes in Animal Farm?

- Class / equality and inequality / power, control and corruption

FRENCH

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. What does faire mean?

- To do / to make

2. Je fais, tu fais, il fait, elle fait

- I do, you do, he does, she does

3. Je fais le lit

- I make the bed

4. Je fais le ménage

- I do the housework

5. Je fais une promenade en vélo / en bateau

- I go on a bike ride / on a boat trip

6. Il fait beau

- The weather is good

7. Il fait mauvais

- The weather is bad

GEOGRAPHY

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. What do you call it when someone cannot afford basic needs?

- Poverty

2. What is the term for using channels or sprinklers to water crops?

- Irrigation

3. What is the correct term for farming?

- Agriculture

4. When is the term used for supply of water exceeds demand?

- Surplus

5. What is the term for when demand exceeds supply?

- Deficit

6. What is an underground layer of rock that holds water?

- Aquifer

7. A place where massive piles of waste is dumped?

- Landfill

HISTORY

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. What was the name of the most famous artist, sculptor and inventor from the Renaissance?

- Leonardo da Vinci

2. What does the word Renaissance mean?

- Rebirth

3. What did Johannes Gutenberg invent in the 1440s?

- The printing press

4. What year did Christopher Columbus sail to the Caribbean?

- 1492

5. Who was the first European to reach India by sea?

- Vasco da Gama

6. Who was the first person to sail around the world?

- Ferdinand Magellan

7. Which two empires did the Spanish conquer between 1519 and 1534?

- The Aztecs and Incas

8. What two groups did Christianity in Europe split into?

- Catholics and Protestants

9. Where was Martin Luther from?

- Germany

10. What did Luther preach about the Bible?

- That people should be able to read it in their own language

MATHEMATICS

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. What is the denominator?

The denominator shows how many parts the amount has been divided into.

2. What is the numerator?

The numerator shows how many of those parts we have got.

3. What is a mixed number made up of?

An integer and a proper fraction.

4. What is an improper fraction?

An improper fraction has a numerator bigger than the denominator.

5. What are common denominators?

When fractions have the same denominator.

6. When can fractions be compared?

When they have common denominators.

7. When can fractions be added or subtracted?

When they have common denominators.

8. What is important when finding equivalent fractions?

Multiply or divide the numerator and denominator by the same number

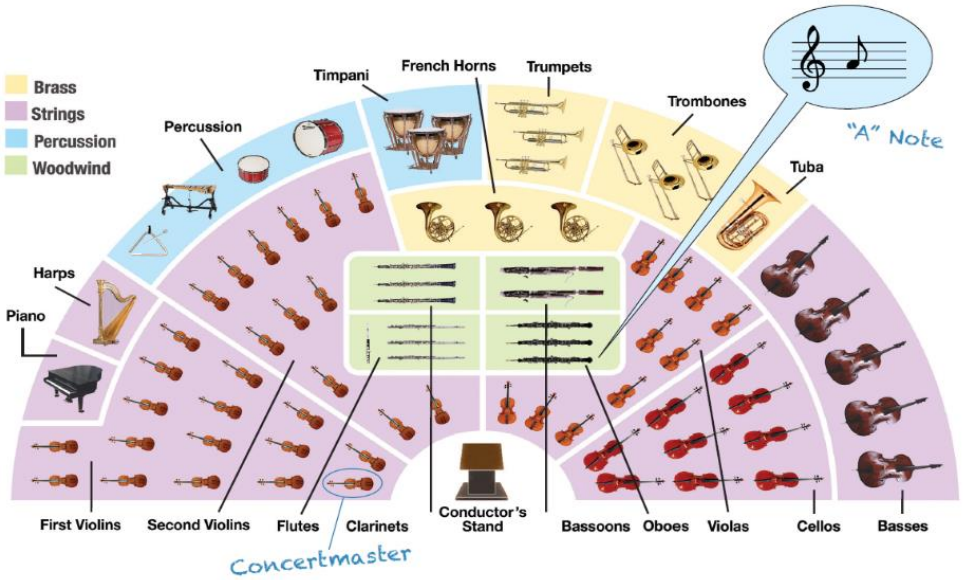
9. How do you simplify a fraction?

Divide the numerator and denominator by the biggest integer you can

PERFORMING ARTS

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. How is the Orchestra made up?



2. The Orchestra Families

The orchestra comprises four main instrument families: strings, woodwinds, brass, and percussion, each adding unique qualities to the ensemble's sound.

String

- **Violin**: Highest-pitched.
- **Viola**: Slightly larger, deeper.
- **Cello**: Rich, sonorous.
- **Double Bass**: Largest, lowest-pitched.

Woodwind

- **Flute**: Bright, airy.
- **Oboe**: Distinct, nasal.
- **Clarinet**: Versatile, expressive.
- **Bassoon**: Deep, resonant.

Brass

- **Trumpet**: Bright, powerful.
- **French Horn**: Mellow, rich.
- **Trombone**: Sliding pitch.
- **Tuba**: Largest, lowest-pitched.

Percussion

- **Timpani**: Tuned kettledrums.
- **Snare Drum**: Sharp, staccato.
- **Bass Drum**: Deep, resonant.
- **Cymbals, Tambourine, Triangle**, etc

3. Facts about the Orchestra

1. **Origins**: The modern orchestra, rooted in the Baroque era, evolved over centuries, with its name derived from the Greek word for "to dance."
2. **Conductor**: Crucial in leading and interpreting, conductors like Hector Berlioz in the 19th century set tempo and shape performances.
3. **Instrument Count**: A symphony orchestra typically exceeds 100 musicians, with sections carefully balanced for harmony.
4. **String Section**: Core to the orchestra, the string section, often divided into first and second violins, sits nearest the conductor.
5. **Woodwind and Brass Sections**: Crafted from various materials, brass (e.g., trumpets, trombones) and woodwind (e.g., flutes, clarinets) sections contribute diverse timbres.
6. **Percussion Section**: Providing rhythm and accents, the percussion section includes timpani, snare drum, cymbals, and more.

PHYSICAL EDUCATION

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. Skills

Backhand: a stroke in which the ball is struck on the opposite side of the body to the racquet hand
Drop Shot: a gentle shot that just lands just over the net
Forehand: a shot hit from the racket-arm side of the body
Grip: how to hold the racket in tennis that is hit in a high arc, usually over the opponent's head
Net: the woven barrier dividing a court into halves, over which the ball must be hit
Racket: a stringed 'bat' that players hold and use to hit the ball
Rally: a long series of shots
Return: to hit a shot back to the opponent
Umpire: the official who is in overall charge of a match
Volley: a shot on which the ball is hit before it bounces
Serve: the shot that begins each point, in which the server hits the ball after tossing it into the air. The serve must go diagonally across the court and bounce in the serving box.

Forehand

A shot hit from the racket-arm side of the body. Usually played as a one-handed shot. Hit the ball side on, creating a 'star' shape with your body and swinging with a low to high swing path.

Backhand

A stroke in which the ball is struck on the opposite side of the body to the racquet hand. A backhand shot is now more commonly hit with a two-handed grip, however some players (Federer) will use a one-handed grip. Use the same technique as the forehand just from the other side of your body.

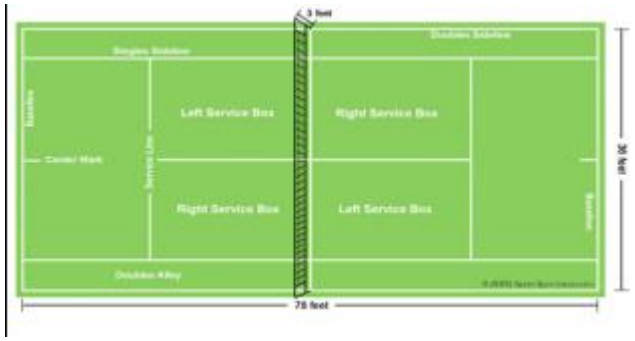
2.

Scoring

In scoring, a game is won by winning points, a set is won by winning games, and a match is won by winning sets

Point	
0	Love
1	15
2	30
3	40
4	Game
40-40	Deuce

Game: A sequence of points with the same player serving. To win a game a player must win at least 4 points but at this point have 2 more points than the opponent.
Set: A player must win at least six games to win a set.
Match: Usually a best of 3 sets win a match. In Grand Slams, men play best of 5 sets, all other formats are best of 3.



SCIENCE

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. State what the main nutrients are used for

- **Carbohydrate**: To provide energy for **respiration**.
- **Protein**: For **growth** and **repair**.
- **Fats**: To provide and store **energy** and insulate against cold.
- **Minerals** and **vitamins**: Needed to maintain health.
- **Fibre**: To keep the food *moving* through the gut.

2. Describe the impacts of an unhealthy diet

- Eating too much: **Obesity**, heart disease & type II **diabetes**.
- Eating too little: **Anorexia**, Kwashiorkor, Rickets, Scurvy.

3. State the test for starch, fat, protein and glucose

- **Starch**: Starch turns **iodine** solution from yellow to blue/black
- **Fat**: Rub the food on paper and it will leave a **greasy** mark.
- **Protein**: Protein turns **biuret** solution from blue to lilac.
- **Glucose**: Glucose turns **benedict's** solution from blue to red.

4. Describe what happens during digestion

- **Mouth**: Teeth break down food (**mechanical**) and saliva contains enzymes (**chemical**).
- **Stomach**: Contains hydrochloric acid to kill bacteria and break down food.
- **Small intestine**: Digestion finishes, and broken-down food is absorbed into the blood.
- **Large intestine**: Water is absorbed back into the body.

5. Describe how enzymes are used in the body

- Enzymes break **large molecules** into **small molecules** so that they can be **absorbed** into the blood.

6. State the role of protease, lipase and amylase

- **Amylase**: Breaks down starch into sugar (glucose).
- **Lipase**: Breaks down lipids into fatty acids and glycerol.
- **Protease**: Breaks down protein into amino acids.

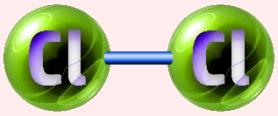
7. State the effect of stimulants, depressants and painkillers

- **Stimulants**: Speed up reaction times.
- **Depressants**: Slow down reaction times.
- **Painkillers**: Block pain signals from reaching the brain.

8. Describe the long-term effects of drinking alcohol

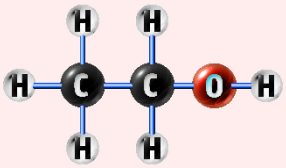
- Causes **cirrhosis** of the liver.
- Can cause **addiction**.

9. Describe what an element is



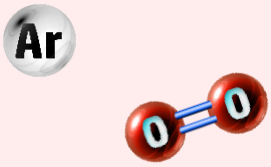
- An element is a substance that **cannot be broken down** into any other substance.
- Made up of only **one type of atom**.

10. Describe what a compound is



- A compound is a substance that contains atoms of **two or more** *different* elements, and these atoms are **bonded together**.

11. Describe what a mixture is



- A mixture consists of **two or more** *different* substances, **not bonded together**.
- You can have a mixture

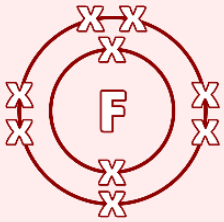
12. State the charge & mass of a proton, neutron and electron

- **Protons** are ***positive*** and have a mass of **1**.
- **Neutrons** are ***neutral*** and have a mass of **1**.
- **Electrons** are ***negative*** and have a mass of **almost 0**.

13. Calculate the number of protons, neutrons and electrons

- **Protons:** The smallest number (the atomic number)
- **Neutrons:** Take the two numbers away (mass number – atomic number)
- **Electrons:** The smallest number (the atomic number)

14. How many electrons can fit on each shell?



- **1st shell:** Can contain 2 electrons.
- **2nd shell+:** Can contain 8 electrons.

15. Why does our Periodic Table look different now?

- **Similarity:** Both in **groups** based on chemical **properties**.
- **Difference 1:** His was in order of atomic **weight**. Ours is in order of atomic **number**.
- **Difference 2:** His had **gaps**, ours doesn't.

16. Describe what an isotope is

- **An isotope** is an atom with the ***same number of protons*** and a ***different number of neutrons***.

AUTUMN TERM 1 (CONTENT FROM LAST YEAR - SUMMER TERM 2)

1. What is a community?

- A group of people living in the same place or who share/have in common a particular characteristic.

2. How can people be a good citizen?

- Follow the law
- Recognise what previous generations have done for us
- Give back to future generations
- Get a good education
- Provide aid and support to other countries

3. What is a career?

- A job that someone does with an opportunity to progress.

4. How can getting enough sleep positively impact your brain?

- Helps to lift your mood
- Helps you concentrate
- Decision making and the ability to think clearly improves
- Improves long term memory

5. How can getting enough sleep positively impact your body?

- Helps repair muscles
- Helps the body to repair cells and organs
- Regulates hormones during puberty
- Improves your immune system

6. What is money used for?

- To buy things
- To save
- To represent the value of things

7. What is the minimum hourly wage for someone aged 16-17?

- £6.40