
















Stafford Manor High School

Year 7 Spring Term 2

Core Knowledge

-  Art
-  Design Technology
-  Digital Communications
-  English
-  French
-  Geography
-  History
-  Maths
-  PE
-  Performing Arts
-  Science
-  SEL
-  Textiles

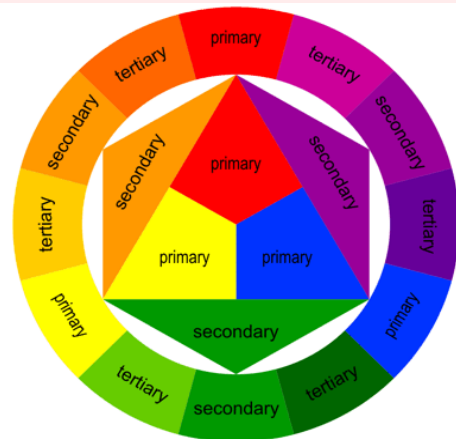


1. What are the formal elements?

- ❖ **Line:** Line creates the whole image. Use line creatively to construct tone, texture and shape.
- ❖ **Tone:** Light to dark/dark to light. Use lighting to create shadow to make a 3D shape which creates tone.
- ❖ **Colour:** Create the mood of the image with using colour. Happy colours are bright, dull colours create mood.
- ❖ **Shape:** Create shape using line and tone. Do this efficiently and this will create a whole image.
- ❖ **Texture:** Something you look at that creates the appearance of being able to touch it.
- ❖ **Form:** Use tone and shape correctly to create form. This will make your image look 3D.

2. What is colour theory?

- ❖ You can make all other colours from the 3 Primary colours. Red, Yellow and Blue.
 - ❖ 2 primary colours mix a secondary colour.
 - ❖ You can use the colour wheel to see warm and cool colours, complimentary colours and tertiary colours.



3. What is included in an artist research page?

- ❖ A title which is the artist's name.
- ❖ Images of the artist's work.
- ❖ A copy of the artist's work which is called an artist recreation.
- ❖ Information about the artist.
- ❖ A background that links with the artist.

4. Key Word Definitions:

- ❖ **Blending:** Mixing colours or tones smoothly.
- ❖ **Depth:** The illusion of distance or three-dimensionality.
- ❖ **Focal Point:** The main area of interest in an artwork.
- ❖ **Form:** A three-dimensional representation of an object.
- ❖ **Line:** A mark extending between two points.
- ❖ **Saturation:** Colour intensity or purity.
- ❖ **Typography:** Artistic use of written words.
- ❖ **Viewfinder:** Tool for framing and composition.

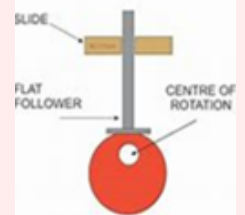
DESIGN TECHNOLOGY

1. What are the four types of motion?

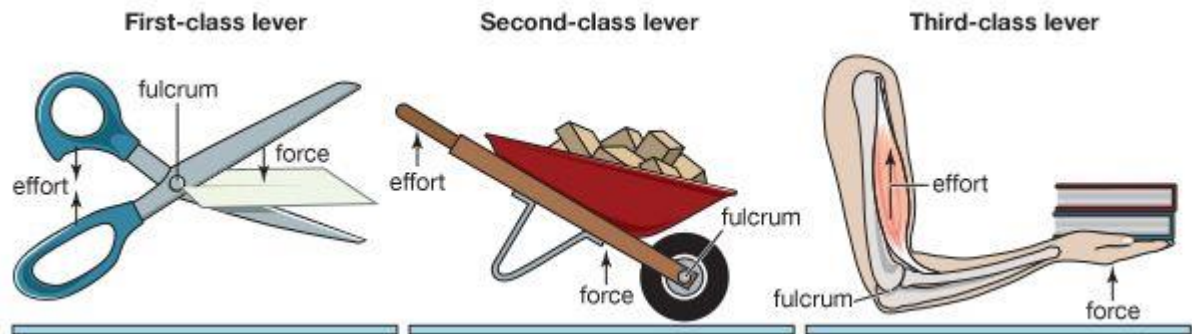
- ❖ **Linear:** Straight-line movement from one point to another.
- ❖ **Reciprocating:** Back-and-forth movement in a straight line.
- ❖ **Rotary:** Circular or spinning movement around a fixed point.
- ❖ **Oscillating:** Swinging or back-and-forth movement around a central point.

2. What is an eccentric cam?

- ❖ An eccentric cam is a cam with its rotational axis off-center, creating irregular and unique movements in mechanical systems.



3. What are the different types of levers?



4. Key Word Definitions:

- ❖ **Amplify:** Increase magnitude or intensity.
- ❖ **Automata:** Mechanical devices imitating human actions.
- ❖ **Axel:** Shaft on which a wheel rotates.
- ❖ **Crank:** Mechanical arm converting rotary to linear motion.
- ❖ **Direction:** Path along which something moves.
- ❖ **Effort:** Force applied to perform work.
- ❖ **Expand:** Increase in size or scope.
- ❖ **Follower:** Component moving in response to a cam.
- ❖ **Force:** Push or pull causing acceleration.
- ❖ **Gears:** Toothed wheels transmitting motion or changing speed.
- ❖ **Lever:** Rigid bar rotating around a fixed point.
- ❖ **Limits:** Maximum or minimum values.
- ❖ **Load:** External force or resistance.
- ❖ **Movement:** Change in position or condition.
- ❖ **Pivot/Fulcrum:** Fixed point for rotation.
- ❖ **Ratio:** Quantitative relation between two amounts.
- ❖ **Slider:** Component moving linearly within a guide.

DIGITAL COMMUNICATION



1. What is an event?

An event is an action or occurrence that is detected by a computer

2. What is an event handler?

An event handler is a part of a program that runs when a specific event happens.

3. What is the event handler that looks for a specific action by the player?

onplayer

4. What character should you add to a coordinate to use relative coordinates?

~ (tilde)

5. How many dimensions are measured in each coordinate?

3 (X, Y, Z)

6. What is absolute world position?

A position in the game based on the world origin (0,0,0)

7. What is relative player position?

A position in the game based on where the player is currently standing (~0, ~0, ~0)

8. What should you press to see the players absolute world position?

F1

9. What is a variable?

A variable holds information about the player, object or game

10. Name four types of variable

Number, String, Boolean, Position

ENGLISH

1. Caliban is insolent at times. What does this word mean?

- Showing a rude and arrogant lack of respect

2. Who is Sebastian's brother?

- Alonso

3. What tasks are Caliban and Ferdinand forced to perform?

- Carrying wood

4. How would you define a complex sentence?

- A complex sentence is a sentence with one independent clause and at least one dependent clause

5. Who persuades Sebastian to try to kill Alonso

- Antonio

6. What is the final task Prospero orders Ariel to perform

- To give the fleet calm seas when they return to Italy

7. Define the word 'colonisation'

- The action of taking over or taking control over the indigenous people of an area.

FRENCH

1. What is the masculine indefinite article (word for a /an)?

☒ un

2. What is the feminine indefinite article (word for a / an)?

☒ une

3. avoir: being or having?

☒ Having / to have

4. What does être mean?

☒ Being / to be

5. Write J'ai, tu as, il a, elle a in English

☒ I have, you have, he has, she has

6. Write I have, you have, he has, she has in French (singular paradigm of verb avoir)

☒ J'ai, tu as, il a, elle a

7. Write Je suis, tu es, il est, elle est in English

☒ I am, you are, he is, she is

8. Write I am, you are, he is, she is in French (singular paradigm of verb être)

☒ Je suis, tu es, il est, elle est

9. How can you make a statement a question?

☒ Raise your pitch at the end of a statement

10. Where do most adjectives go in French?

☒ After the noun

11. Which is correct? Une voiture cher / une voiture chère

☒ Une voiture chère

12. Why is this correct? Un vélo rapide

☒ Because 'rapide' is already spelled with a silent final e, so you cannot add one, nor take it away

13. Translate into English: 1) un vélo, 2) un ordinateur, 3) un livre, 4) un cadeau, 5) une voiture, 6) une chambre, 7) une idée

☒ 1) bike, 2) computer, 3) book, 4) present, 5) car, 6) bedroom, 7) idea

14. Which numbers are masculine, which are feminine ?

☒ Masculine = 1,2,3,4 feminine = 5,6,7

GEOGRAPHY

1. What three factors affect population growth?

- 🌱 Improved sanitation
- 🌱 Medical improvements
- 🌱 Improved nutrition

2. What maps are good for showing population distribution?

- 🌱 Choropleth maps

3. How is country's birth rate and death rate measured?

- 🌱 Number of births and death per one thousand people

4. What is natural increase?

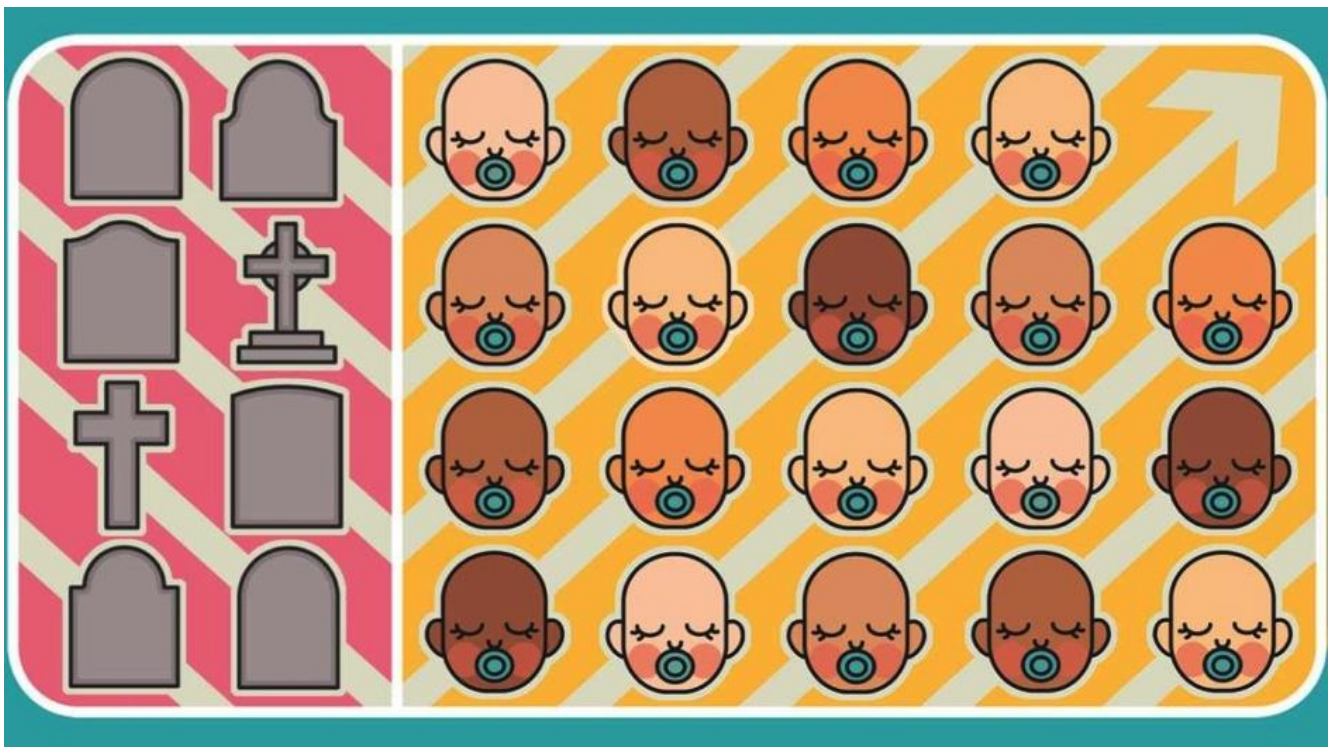
- 🌱 Birth rate minus death rate

5. What is a population pyramid?

- 🌱 A diagram showing the population in different age groups

6. What is life expectancy?

- 🌱 The average age people are expected to live within a country



HISTORY

1. What did the king give barons for helping him rule?

- Land

2. Who did the barons share land with?

- Knights

3. What were knights known as?

- Lord of the manor

4. What was the punishment for breaking rules on the manor?

- Fines

5. How many people were peasants?

- 9 out of 10

6. What were the two different types of peasant?

- Freemen and villeins

7. What is a famine?

- A shortage of food that leads to starvation

8. Why were guilds important?

- They controlled the quality and price of artisans' goods and helped the artisans' families

9. Where did medieval people hope to go after they died?

- Heaven

10. What did medieval people believe the priest could do when they confessed their sins?

- Use his special powers to grant them forgiveness

MATHS

1. Key word definitions:

- 🔗 **Sum:** Add the numbers together.
- 🔗 **Difference:** Subtract one number from the other.
- 🔗 **Product:** Multiply the numbers together.

2. What does the (ANS) key on a calculator do?

The (ANS) key recalls the previous answer.

3. What is the order of operations?

Brackets or Powers
then
Multiply or Divide
then
Add or Subtract

4. What is the reciprocal of an integer?

'One over' the integer.

5. What is the reciprocal of a fraction?

The same fraction, but upside down.

6. What are the first twelve numbers in the 11 timestable?

11, 22, 33, 44, 55, 66, 77, 88, 99, 110, 121, 132

7. What are the first twelve numbers in the 12 timestable?

12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144

8. What are the first ten numbers in the 13 timestable?

13, 26, 39, 52, 65, 78, 91, 104, 117, 130

9. What are the first ten numbers in the 14 timestable?

14, 28, 42, 56, 70, 84, 98, 112, 126, 140

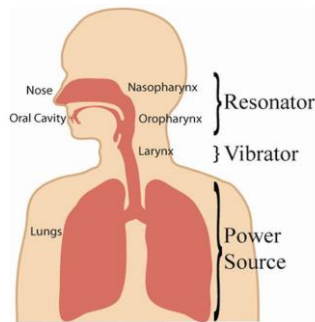
10. What are the first ten numbers in the 15 timestable?

15, 30, 45, 60, 75, 90, 105, 120, 135, 150

PERFORMING ARTS

1. How does the voice work?

- As you make a sound, the air comes up from the lungs, passes through the vocal cords, which are located inside the larynx and leaves via the mouth/nose. The vocal cords are separated/open as we inhale and exhale, and come together/close when we make sound.



2. These are the note values which you need to know in order to know how long to sing a note for

note value	=	notes	rests	=	rest value
4 beats	=			=	4 beats
2 beats	=			=	2 beats
1 beat	=			=	1 beat
$\frac{1}{2}$ beat	=			=	$\frac{1}{2}$ beat

3. These key words are really important this term and within KS3-4 Music lessons

Pitch- How high or low a note/song is	Tempo- How fast or slow the music is	Duration- How long or short the note or music is
Dynamics- How loud of quiet the music is	Ballad- A slow tempo, sentimental or romantic song	A Cappella- Singing with no accompaniment







4. These are the different voice types

- Soprano** range: The soprano is the highest singing voice
- Mezzo-soprano** range: The mezzo-soprano voice is the middle-range voice type for females
- Contralto** range: The contralto voice is the lowest female voice
- Tenor** range: The tenor is the highest male voice within the modal register
- Baritone** range: The baritone voice is the middle-range voice type for males and the most common male voice type
- Bass** range: The bass is the lowest singing voice

5. Music genres

Musicals	Opera	Country
Pop	R&B	Folk
Jazz	Classical	Gospel

6. Some tips on keeping your voice healthy

 Absolutely no screaming or shouting	 Warm up gently before voice use	 Avoid vocal projection
 Use soft, breathy vocal quality during speaking	 Maintain use of good breath support during speaking or singing	 Use only mid-range during singing

7. General questions about the voice

- **What are good vocal warm-up exercises for females?** Warming up your voice before singing is crucial. Exercises like lip trills, sirens, and scales can help warm up your vocal cords and improve flexibility.
- **How can I take care of my singing voice?** Adequate hydration, proper rest, and avoiding vocal strain are essential. Additionally, it's important to be mindful of your overall health, as it can impact your vocal performance.
- **What are some effective breathing exercises for singers?** Diaphragmatic breathing and exercises that focus on breath control are crucial for singers. These exercises help support your voice and improve stamina.
- **How do I maintain vocal health?** Hydration, avoiding excessive caffeine and alcohol, and giving your voice proper rest are key. If you experience persistent vocal issues, it's important to consult with a healthcare professional.
- **How do I choose songs that suit my voice?** Select songs that match your vocal range and style. Experiment with different genres to find what complements your voice best.
- **Any tips for live performances?** Practice, confidence, and connecting with your audience are essential. Proper stage presence and mic technique also contribute to a successful performance.

PHYSICAL EDUCATION

1. Fitness and the importance of the warm up/ cool down

Three Elements of a Warm up

- **Pulse raiser** – This allows us to increase our heart rate and the amount of blood pumped around our body which carries more oxygen to the muscles we are using.
- **Stretching** – Increased blood flow to the muscles. Increased range of motion at the joints. Reduced risk of injury.
- **Increased intensive activity** – This allows the participant to take part in activities relevant to the sport/ activity to be undertaken. Increase mental preparation.
- **Purpose of a cool down** – Return heart rate to resting levels gradually. Remove LACTIC ACID from the body (reduce muscle soreness).

2. Effects of exercise

Effects of exercise on the body – Breathing and Heart Rate increase with intensity of exercise.

Pulse rate – Pulse rate (the number of times your heart beats in a minute) can be taken at either your wrist or neck. The normal rate

=70-100BPM

How to take your pulse rate: -

Gently place 2 fingers of your other hand on this artery.

1. Do not use your thumb, because it has its own pulse that you may feel.

Count the beats for 30 seconds, and then double the result to get the number of beats per minute.

3. Fitness Tests

Key Skills: Components of Fitness/ Tests for Components of Fitness:- Muscular endurance- The ability to use muscles repeatedly for a long period. **1 Minute Sit-Up Test &**

1 Minute Press-Up Test

Cardiovascular/Aerobic Endurance - Being able to exercise the whole body for a long period using oxygen and nutrients efficiently. **Cooper 12-Minute Test; multi stage & Harvard Step Test**

Muscular Strength- The amount of force that muscle produces in one contraction. **Grip Dynamometer**

Flexibility- The range of movement possible at a joint. **Sit and Reach Test** **Body Composition-** The

measure of how much of your body is made up of fat-free mass, vital organs and fat. **Body Mass Index**

Agility- The ability to change direction at speed (quickly) without losing balance. **Illinois Agility Run Test**

Balance- The ability to maintain centre of mass over a base of support. **Stork Balance Test**

Co-ordination- The smooth flow of movement needed to perform a motor task efficiently and accurately using two or more body parts together.

Alternate Hand Wall Toss Test

Power- Speed X Strength **Vertical Jump Test**

Reaction time- How quickly someone can react to a stimulus. **Ruler Drop Test**

Speed- How quickly an object or human moves from 'A' to 'B'. **30m/40m Sprint Test**

SCIENCE

1. What is gravity?

- ☞ **Gravity** is a **force** that **attracts** objects towards each other.
- ☞ **Gravity** pulls towards the **centre of an object**, for example a planet.
- ☞ All matter has a gravitational field that attracts other objects.
- ☞ The **more mass** an object has, the *greater* its **gravitational field** will be.

2. How do we calculate weight on different planets?

- ☞ **Weight = Mass × Gravitational field strength (g)**

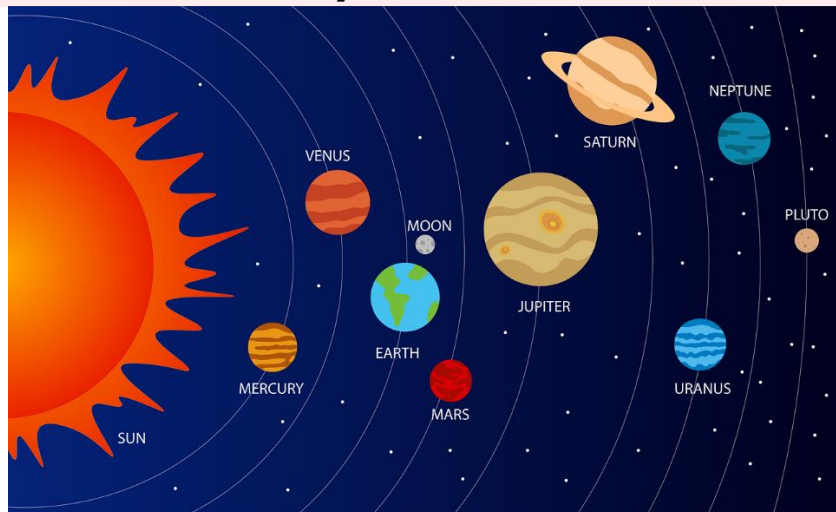
3. What are the planets in the Solar System?

The inner planets:

- ☞ **Mercury**
- ☞ **Venus**
- ☞ **Earth**
- ☞ **Mars**

The outer gas planets:

- ☞ **Jupiter**
- ☞ **Saturn**
- ☞ **Uranus**
- ☞ **Neptune**



4. What other things are there in our Solar System?

- ☞ **Comets**: Balls of **ice** and **dust** in an **elliptical** (egg shaped) orbit around the Sun.
- ☞ **Asteroids**: Comprised of **rock** and **metal**. Most of them are found in an 'asteroid belt', orbiting the Sun between **Mars** and **Jupiter**.
- ☞ **A Star**: The **sun** which was formed from massive clouds of dust and gas in space.
- ☞ **Moons**: Most planets have moons (except for Mercury and Venus). Earth has one- we call it **the Moon**.
- ☞ **Dwarf Planets**: Pluto is a dwarf planet.



1. Different types of relationship include:

- ❖ Romantic (girl/boyfriend, life partner, husband, wife)
- ❖ Professional (colleague)
- ❖ Commercial (bus driver, shop assistant)
- ❖ Sexual (girl/boyfriend, life partner, husband, wife)
- ❖ A friend (person with shared interests)
- ❖ Part of your family (parent/carer)

2. Qualities of a good friendship online and offline include:

- | | |
|------------------|---------------------------|
| ❖ Communication | ❖ Balance (give-and-take) |
| ❖ Honesty | ❖ Trust |
| ❖ Mutual Respect | ❖ Fairness/equality |

3. Qualities of a toxic friendship online and offline include:

- ❖ Expect to get their own way and then get angry if they don't
- ❖ Stop you from seeing other friends
- ❖ Puts you down in front of other people
- ❖ Make you feel that you are not good enough
- ❖ Tried to make you do something that you don't want to
- ❖ Hits you

4. Strategies for being positive include:

- ❖ Focus on the positive
- ❖ Spend time with positive people
- ❖ Practice positive talk
- ❖ Start everyday on a positive note
- ❖ Keep a diary
- ❖ Identify things you are grateful for

5. Strategies for being assertive include:

- ❖ Use a reasonable voice
- ❖ Describe the problem
- ❖ Express how you feel
- ❖ Ask for a specific change
- ❖ List the improvements

TEXTILES

1. The bookmark Story

- ✿ The earliest existing **bookmark dates from the 6th century AD** and it is made of ornamented leather lined with vellum on the back and was attached with a leather strap to the cover of a Coptic codex (Codex A, MS 813 Chester Beatty Library, Dublin). ... The modern abbreviation is usually 'bookmark'.
- ✿ **Who invented the first bookmark?**
- ✿ In fact, it is said that one of the earliest references to the use of bookmarks was in 1584 when the Queen's Printer, **Christopher Barker**, presented Queen Elizabeth I with a fringed silk bookmark.
- ✿ **What is the purpose of a bookmark?**
- ✿ A bookmark is a web browser feature **used to save a web site's URL address for future reference**. Bookmarks save user and browser time, which is especially useful for Web pages with long URLs or accessing a specific part of the site that might not be the homepage for the site.
- ✿ **What are bookmarks made out of?**
Cardstock is of the most widely available and easiest materials for making bookmarks. However, bookmarks are more popular with sewing techniques including binca.

2. Artist information – Micha Bulter

Who is Tina Leahey?

Micha Bulter is a free lance craft artist from Norwish in the UK who sells her work online. She has a page on Etsy where she takes commissions. Her work involves accessorises with embroidery and cross stitch. Her most successful work is binca bookmarks.

Her work involves a variety of embellishment and hand sewing techniques. She uses natural fabrics such as binca. Cotton Binca Fabric is **composed of 100% cotton** and is 50cm wide. Cotton Binca is a superior quality embroidery fabric suitable for creating a wide range of embroidery and cross stitch designs.

