

Stafford Manor High School

Year 11 Autumn Term 2 Core Knowledge

- 🔮 Art
- \delta Biology
- 🔮 Business
- 🔮 Chemistry
- \delta Design Technology
- 🔮 English
- 🔮 French
- Geography
- 🔮 History
- Information Technology
- 🔮 Maths
- Performing Arts
- 🔮 PE
- Physics
- Textiles



1. Describe why presentation is important.

- How we present work can demonstrate professionalism.
- We present our analysis in a way that is appropriate for the different medias used.

2. What must be included in a successful record board?

- A title of the relevant board.
- A selection of at least x5 high quality drawings in different medias.
- Annotations based on the drawings. Always using the guidance booklet to assist you.

3. Why is it important to analyse artists?

We write and learn about artists so we can better understand the world of art and learn from what others have done.

4. What must be 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.



5. Key word definitions:

- Composition: How different elements are combined.
- Sontemporary: Art made today by living artists.
- Sontour: the artist outlines the shape / mass of an object.
- Strips of paper that are rolled/looped to create shapes
- Geometric: Using shapes to create a piece of art
- Solution of the second second
- Perspective: Gives art a 3D look.
- Realistic: Subjects painted from everyday life.
- Shading: Darkening of a drawing to show depth.
- Soft edged: Indicates a gradual or smooth transition.
- Symmetry: Involves mirroring of portions of an image.



1. What are the endocrine glands and what do they produce?

- Endocrine glands produce hormones (chemical messengers)

2. How does adrenalin affect the body? (HIGHER)

- Increases Heart rate, blood pressure, blood flow and blood sugar levels.
- Causes a fight or flight reaction.

3. What are the stages of the menstrual cycle?

- 🔹 Days 1- 7 Menstruation
- Day 14 Ovulation (release of an egg from ovary)
- Day 8-15 Build-up of uterus lining.
- Day 15 28 If egg remains unfertilised uterus lining is maintained until it breaks down and the cycle begins again. If egg is fertilised, it implants in uterus lining and cycle stops.

4. What hormones are involved in the menstrual cycle?

- Oestrogen causes the uterus lining to build up. High level stimulates LH surge.
- Progesterone Maintains the lining of the uterus.
- FSH Stimulates an egg to mature in the ovary
- LH Stimulates ovulation.

5. What are hormonal and barrier contraceptives?

- Condoms useful to prevent STI's and fertilisation.
- Diaphragm or cap. Placed at entrance to uterus, prevent fertilisations, does not prevent transmission of STI's.
- Hormone pill. Releases hormones (oestrogen, progesterone or both) to prevent fertilisation. Does not prevent transmission of STI's.

6. What is homeostasis?

Maintenance of a constant internal environment.

7. How does our body regulate blood sugar?

- High blood sugar Pancreas releases insulin, Glucose stored as Glycogen in Liver cells.
- Low blood sugar Pancreas releases Glucagon, Glycogen in liver is converted back to Glucose and released into the blood.



1. What is the purpose of production?

The purpose of production is to create goods and services

2. What are the three types of production method?

- 🔮 Job (e.g. tailoring)
- Batch (e.g. bread)
- 🔹 Flow (e.g. bottled drinks)

3. What are the impacts of technology?

- Lower costs due to lower labour costs
- Increased productivity (no breaks or holidays)
- Improved quality and consistency

4. What is JIT?

JIT stands for Just In Time. A business is run with such little stock that supplies have to arrive 'just in time' before they run out.

5. What are the benefits and limitations of JIT?

<u>Benefits:</u> Less storage space needed, saving costs Fresher produce Less capital tied up in stock <u>Limitations:</u> Greater risk of running out No bulk-buying discounts

6. What is Quality Control?

Finished goods are inspected, checks for defects rather than preventing them. It is costly, as it can lead to a high level of wastage.

7. What is Quality Assurance?

Quality is checked at every stage in the production process – with the aim to prevent defects. This is more time consuming, but defective products can be dismissed before being completed.

8. What is a warranty?

The guarantee by a producer that it will repair any faults in a product for a specific period of time.



1. What are the four ways to speed up a chemical reaction?

- Increase the temperature
- Increase the concentration
- Increase the surface area (crush it up!)
- 🔮 Use a **catalyst**

2. What are the independent, dependent and control variables?

- Independent Variable: The variable that is changed in an investigation.
- Dependent Variable: The variable that is recorded in an investigation.
- Control Variables: The variables that are kept the same in an investigation.

3. Explain the effect of temperature on rate of reaction

- If you increase the temperature, there is more kinetic energy.
- This means there will be more successful collisions per second.

4. Explain the effect of concentration on rate of reaction

- Increasing concentration means more particles in the same volume.
- This means there will be more frequent collisions.

5. Explain the effect of surface area on rate of reaction

- Crushing up a tablet increases the surface area-to-volume ratio.
- This means there will be more frequent collisions.

6. Definition of Exothermic

- Temperature increases.
- Heat energy is given out to the surroundings.

7. Definition of Endothermic

- Temperature decreases.
- Heat energy is taken in from the surroundings.

8. What is a catalyst?

- Speeds up a chemical reaction.
- Doesn't get used up / remains chemically unchanged.

DESIGN TECHNOLOGY SPRING TERM 1 (CONTENT FROM AUTUMN TERM 2)

1. Material management

- Cut materials efficiently and minimise waste The importance of planning the cutting and shaping of material to minimise waste eg nesting of shapes and parts to be cut from material stock forms. How additional material may be removed by a cutting method or required for seam allowance, joint overlap etc.
- Use appropriate marking out methods, data points and coordinates – The value of using measurement and marking out to create an accurate and quality prototype. The use of data points and coordinates including the use of reference points, lines and surfaces, templates, jigs and/or patterns

2. Specialist tools and equipment

How to select and use specialist tools and equipment, including hand tools, machinery, digital design and manufacture, appropriate for the material and/or task to complete quality outcomes. How to use them safely to protect themselves and others from harm.

3. Specialist techniques and processes

How to select and use specialist techniques and processes appropriate for the material and/or task and use them to the required level of accuracy in order to complete quality outcomes. How to use them safely to shape, fabricate and construct a high quality prototype, including techniques such as wastage, addition, deforming and reforming.

4. Surface treatments and finishes

Students should know and understand that surface treatments and finishes are applied for functional and aesthetic purposes. How to prepare a material for a treatment or finish. How to apply an appropriate surface treatment or finish.



1. Making Connections Between Poems

- Conflict Remains, Exposure, Charge of the Light Brigade, Bayonet Charge, War Photographer, Kamikaze, The Emigree,
- Suffering Remains, Exposure, Poppies, Charge of the Light
- 🔹 Brigade, War Photographer
- Reality of War Remains, Exposure, Poppies, Charge of the Light Brigade, Bayonet Charge, War Photographer
- Nature Exposure, Bayonet Charge, Kamikaze
- Patriotism Exposure, Charge of the Light Brigade, Bayonet Charge, Kamikaze
- Bravery Poppies, Bayonet Charge, The Emigree
- Schildhood Poppies, Kamikaze, The Emigree, Checking Out Me
- Stract from The Prelude
- Identity The Emigree, Checking Out Me History, Tissue
- Protest The Emigree, Checking Out Me History
- Power of Nature Ozymandias, Tissue, Extract from The Prelude, Storm on the Island
- Decay Ozymandias Pride Ozymandias, My Last Duchess
- Control My Last Duchess, Tissue
- Jealousy My Last Duchess
- Fear Extract from The Prelude, Storm on the Island

2. What is caesura?

Caesura – using punctuation to create pauses or stops.

3. What is a volta?

It is a turning point in a poem.

4. What is anaphora?

Irst word of a stanza is the same across different stanzas.

5. What is a rhyming couplet?

Rhyming couplet – a pair of rhyming lines next to each other

6. Which techniques should I use for non-fiction writing?

- D Direct address (second person pronoun)
- A Alliteration/Anecdote
- 🔮 F Fact
- 😻 O Opinion
- R Rhetorical question
- (interrogative)/Repetition
- E Emotive language (pathos)/Exaggeration
- 🔮 (hyperbole)
- 🕴 S Statistic/Simile
- T Triples (tri-colon sentence)

7. Structuring an Article

- Give your article a title. Use something interesting or catchy if you can.
- Start with a focused opening paragraph, outlining the main ideas/your perspective.
- Include two or three main paragraphs giving more specific details and reasons.
- Conclude your article. Sum up your ideas and give the reader something thought-provoking to consider.



1. Into English: la biologie, la chemie, le dessin, le français, l'EPS, l'informatique, l'histoire, la géographie, l'anglais, les maths, le théâtre, le commerce, la physique

Biology, chemistry, art, French, PE, ICT, history, geography, English, maths, performing arts, business, physics

2. Into English: les devoirs, une élève, l'école, le collège, le lycée, la fac, les cours, les profs, l'instituteur / institutrice, la matière, la récré

HW, a pupil, school, middle school, high school, lessons, teachers, primary school teacher, subject, break

3. Into English: difficile, facile, dur, ennuyeux, insuffisant, mieux / meilleur, marrant, parresseux, stressant, inutile, utile, intelligent, bête, bien équipé

Difficult, easy, hard, boring, poor, better/ best, funny, lazy, stressful, useless, useful, clever, stupid, well-equipped

4. Into English: il faut, on peut, on doit

You have to, you can, you must

5. What kind of verb follows these expressions?

Infinitive (eg il faut faire ses devoirs ; on ne doit pas porter le maquillage)

6. Translate: il faut faire ses devoir; on ne doit pas porter le maquillage ; on ne peut que manger à la cantine à midi

You have to do your HW; you musn't wear makeup; you can only eat at the canteen at lunch time

7. What do these expressions of quantity mean? Trop de, assez de, beaucoup de, autant de, plus de, moins de

stoo much, enough, alot, as much as, more than, less than

8. Name the tense: je fais, j'ai fait, je faisais, j'avais fait, je vais faire, je ferais, je ferai

present, perfect (past), imperfect (past), pluperfect (past), near future, future conditional, future



1. How has the UK economy changed?

- Primary, secondary, tertiary and quaternary
- Pre-industrial, industrial, deindustrialisation and post industrialisation

2. Which industries make up the UK's post industrial sector?

- Information technology
- Service industries and finance
- 🔮 Research

3. What is a science park?

- A group of scientific and technical knowledge-based businesses located on a single site.
- Most are associated with universities, enabling them to use research facilities and employ skilled graduates.

4. What is a business park?

- An area of land occupied by a cluster of businesses
- Business parks are usually located on the edges of towns

5. What are the environmental impacts of industry?

- Large scale extraction industries such as mining and quarrying can have an impact on the environment.
- Today there is a much greater concern about the need for industries to be more environmentally sustainable.

6. How is the UK's rural landscape changing?

- South Cambridgeshire is experiencing rapid population growth as people move out of Cambridge and London to enjoy a different pace of life in the countryside.
- Remote rural areas such as the Outer Hebrides are experiencing population decline.

7. How the UK's transport infrastructure is changing?

- Road improvements
- 8 Railway improvements
- Developing the UK ports
- Airport developments

8. What is the north-south divide?

- This refers to the real or imagined cultural and economic differences between:
- The south of England (the South East, Greater London, the South West and parts of eastern England).
- The north of England (Yorkshire, the Humber, the North East and North West) and the rest of the UK.

HEALTH & SOCIAL CARE SPRING TERM 1 (CONTENT FROM AUTUMN TERM 2)

1. Define health and wellbeing:

A combination of physical health and social and emotional wellbeing, and not just the absence of disease and illness.

2. Physical factors that can have positive or negative effects on health and wellbeing:

- Inherited conditions (sickle cell disease, cystic fibrosis)
- Physical ill health (cardiovascular disease, obesity, type 2 diabetes)
- Mental ill health (anxiety, stress)
- 🔮 Physical abilities
- 🔮 Sensory impairments

3. Lifestyle factors that can have positive or negative effects on health and wellbeing:

- 🔮 Nutrition
- Physical activity
- 🔹 Smoking

Alcohol
Substance misuse

- 4. Social factors that can have positive or negative effects on health and wellbeing:
 - Supportive and unsupportive relationships with others
 - Social inclusion and exclusion
 - 🔮 Bullying
 - Solution Discrimination

5. Cultural factors that can have positive or negative effects on health and wellbeing:

- 🔮 Religion
- Gender roles and expectations
- Sender identity

- 🔮 Sexual orientation
- Community participation

6. Economic factors that can have positive or negative effects on health and wellbeing:

- Employment situation
- Financial resources

7. Environmental factors that can have positive or negative effects on health and wellbeing:

- 🔮 Housing needs, conditions, location
- 🔮 Home environment
- Exposure to pollution (air, noise and light)



1. What divided the North and South of the USA?

🔮 Slavery

- 2. What increased the tension over slavery?
 - 🤨 Westward expansion
- 3. What type of people wanted slavery to end?
 - 🔮 Abolitionists
- 4. When was the Kansas-Nebraska Act?
 - 🔮 1854
- 5. What triggered the South's secession?
 - 🔮 The election of Abraham Lincoln in 1860
- 6. When was the Emancipation Proclamation?
 - 🦸 1863

7. Who won the US Civil War?

- 🔮 The North (Union)
- 8. What was the 13th Amendment?

🔮 It made slavery illegal across the USA

- 9. Who became President after Lincoln's assassination?
 - 😻 Andrew Johnson

10. Who disagreed with Johnson's approach to Reconstruction?

🔮 Radical Republicans

11. What was the 14th Amendment?

🤹 Guaranteed citizenship to anyone born in the USA

12. What was the 15th Amendment?

🔹 The right for any man to vote

13. When did Reconstruction end?

🔮 1877

14. What was the name of people who went to live on the Plains?

🔮 Homesteaders

15. When was Red Cloud's War?

🔮 1868

16. When was the Transcontinental Railroad completed?

🦸 1869

17. When was the Great Sioux War?

🤹 1876

18. Which famous battle did the Sioux defeat General Custer? The Battle of the Little Bighorn

19. What were Indians forced onto by the US government? & Reservations

20. When were southern states legally allowed to use segregation?1896

INFORMATION TECHNOLOGY SPRING TERM 1 (CONTENT FROM AUTUMN TERM 2)

1. What is a database used for?

A database is a collection of data organised in a way that makes it easy for a computer program to search and store information. Similar to an electronic filing system

2. What is a primary key?

A primary key is a field in a database table that acts as a unique identifier for each record.

3. What is a form?

A form is a window or screen that contains numerous data entry fields. Each field holds a field label so any user knows what type of data to enter.

4. What is a query?

A query is a method used for requesting information from a database which matches set criteria.

5. What are reports?

Reports are a mechanism for presenting Information taken from a database.

6. What is the difference between a field and a record?

A field is a single piece of data e.g. employees name. A record is a complete set of fields e.g. all data stored on the employee.

7. What is mail merge?

Mail merge is a word processing feature that allows users to personalise letters with names and addresses from a database.

8. What two pieces of software are required to mail merge?

A word processor and database software (which could be a spreadsheet)

SPRING TERM 1 (CONTENT FROM AUTUMN TERM 2)

1. Key word definitions:

- Searing: An angle that describes a direction
- Congruent: Shapes that are exactly the same
- Sketch: Does not need to be measured
- Elevation: The view of a 3D shape or object from one side.

2. What three things should you remember about bearings?

- 1. Always measured from north
- 2. Always measured clockwise
- 3. Written using three digits (e.g. 050 not 50)

3. Name the four conditions for unique triangles

SSS, SAS, ASA, RHS

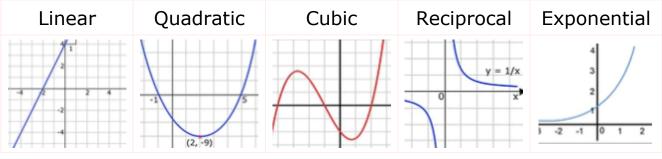
4. What is a locus?

A locus is a path of points. More than one locus are called loci.

5. Key word definitions:

- Face: The flat surface of a shape
- Edge: The line where two faces meet
- Vertex: The point where three or more edges meet

6. What do the following types of graph look like?



7. What are the two types of turning point?

- 1. Maximum (the top of a curve)
- 2. Minimum (the bottom of a curve)



1. What does denotation mean?

Elements that are arguable, the factual elements that we all agree.

2. What does connotation mean?

Elements that are arguable, elements that are personal to the viewer.

3. What is consumption?

Audiences reading, listening or watching a media product

4. What does reading an image mean?

The effect that a media image has on audiences; what they understand from the media product

5. What does analysis mean?

Breakdown of an image or idea; an explanation of why we believe something to be so

6. What is context?

The elements, ideas and beliefs surrounding a media product that provides additional understanding

7. What is an icon?

Images that have strong associations with a person, place, idea or time

8. What does polysemics mean?

The idea that images and colours may be open to different interpretations

9. What does anchorage mean?

Anchorage is when one element of a media product uses a different element of media to reinforce a specific idea

10. What does culture mean?

The ideas, customs and social behaviour of a particular people or society

11. What is mise-en-scene?

Everything in the frame of a shot in a tv show or film

12. What does point of view mean?

Where the camera places the audience in relation to the action in a shot

You need to keep developing your reflective log. You should be aiming for at least 6 of these to achieve the higher grades.

PERFORMING ARTS

SPRING TERM 1 (CONTENT FROM AUTUMN TERM 2

1. What did you do? 2. What decisions were made? 3. Resources needed 4. Health and safety comments 5. Skills learnt 6. Targets for next time

1. Devised Drama Option

Produce a development log that records the exploration and development of your ideas in response to the creative brief. [10 Marks] Candidates should show evidence of exploration of the following that are appropriate to the piece they are creating:				
👶 voice	🕴 movement	interaction	🔹 scripting	
🔹 blocking	🔹 development th	nrough improvisation	or arrative structure.	
2. Choreography Option				
Produce a development log that records the exploration and development of your ideas in				

Produce a development log that records the exploration and development of your ideas in response to the creative brief. [10 Marks]

Candidates should show evidence of exploration of the following that are appropriate to the piece they are creating:

🔹 actions	🔹 motif	question and answer
🤹 space	🔹 narrative	🔹 binary
🔹 dynamics	🤨 unison	🔹 ternary
🔹 relationships	🤹 canon	🔹 phrasing.

3. Composition Option

Produce a development log that records the exploration and development of your ideas in response to the creative brief. [10 Marks]

Candidates should show evidence of exploration of the following that are appropriate to the piece they are creating:

🤹 melody	🤹 sonority	🤹 pitch
🤨 harmony	🔹 texture	🔹 articulation
🔮 tonality	🤨 tempo	🤹 scores/lead sheets.
🔹 form and structure	🤨 rhythm	
🤨 dynamics	🤨 metre	

4. Research

Produce a development log that records the exploration and development of your ideas in response to the creative brief. [10 Marks]

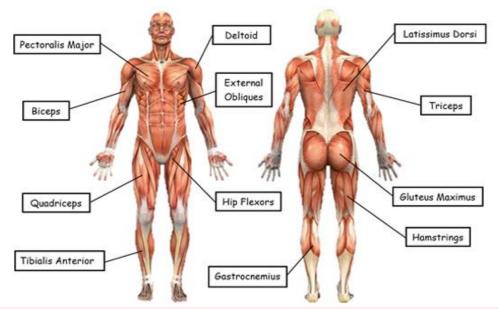
Candidates should show evidence of exploration of the following that are appropriate to the pieces they are creating:

use of materials texture sourcing and hiring	consideration of character	🔹 shape	measuring performers
	🤹 use of materials	🔹 texture	🤨 sourcing and hiring
period and style colour sewing/assembling.	period and style	🔹 colour	sewing/assembling.

PHYSICALE DUCATION SPRING TERM 1 (CONTENT FROM AUTUMN TERM 2)

1. Names and Location of the voluntary muscles

Voluntary muscles of the body:



2. Antagonistic Muscle Pairs

Antagonistic muscle pairs:

When we bend the elbow (flexion) the biceps contract and the triceps relax Agonist = Biceps Antagonist = Triceps



When we straighten the elbow (extension) the triceps contract and the biceps relax Agonist = Triceps Antagonist = Biceps **Other antag**



Other antagonistic pairs include:

- Quadriceps & Hamstrings
- Hip flexors & Gluteus Maximus
- Gastrocnemius & Tibialis Anterior

3. Classification of Muscles

Voluntary muscles

- Found on the skeleton e.g. biceps triceps & quadriceps
- Conscious control
- Attach to the skeleton to create movement

Involuntary muscles

- Found in the stomach, intestines & blood vessels
- Unconscious control
- Contract slowly and rhythmically

Cardiac muscle

- Found in the wall of the heart
- Unconscious control
 - Do not tire



1. How does the structure of the atom allow current to flow?

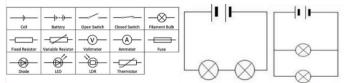
Particle	Relative Mass	Relative Charge	٩
Proton	1	+1	pro
Neutron	1	0	
Electron	1/1860	-1	S

An atom has no overall charge because the number of + protons and -electrons is the same (they cancel out).

Ó

In metals some electrons are **'free' to move**.

2. How do we draw circuits?



É\$ In a **series circuit** the current only has one route to flow- passing through all components.

In a **parallel circuit** there are

I

R

E

0

-11-11-

V

junctions and the current will flow through one route or the other.

3. What is current?

- Current is the rate of flow of charge it is measured with an ammeterwhich must be placed in **series**.
- Unit of current is amp (A), unit of electric charge is coulomb (C).

4. What is potential difference?

- Potential difference (voltage) is the energy transferred per unit of charge that passes, measured with a **voltmeter**- placed in **parallel**.
- Unit of voltage is the volt (V), also a joule per coulomb (J/C).

5. What is electrical resistance?

 $\mathbf{\mathfrak{G}}$ Resistance is how difficult it is for current to flow the unit is ohms ($\mathbf{\Omega}$).

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I

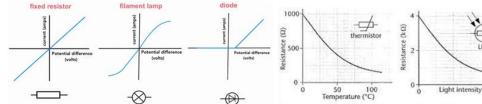
If resistance increases then current reduces (and vice versa).

6. What equations can we use to help understand circuits?

- Charge (C) = current (A) x time (s)
- Energy (J) = charge (C) x voltage (V)
- Solve the set of \mathbf{Q} . We say that \mathbf{Q} is the set of the s

7. How can components affect the resistance of a circuit?

- A variable resistor changes the resistance of a circuit.
- 🥸 When the voltage across different components is changed it can change the resistance.



8. How can we investigate resistance?

- Solution to the current and th voltage when the potential difference of the circuit is changed.
- Set up the circuit as shown, record voltage and current, change the variable resistor and repeat. Use the equation resistance = voltage \div current.



1. What are the four study options after completing your GCSE's?

- A-Levels
- Vocational (B-TEC or T-Level)
- Apprenticeship
- Semployment (with an element of training within the role)

2. Local Further Education providers include:

- NSCG: Stafford College
- South Staffordshire College (Rodbaston, Tamworth, Lichfield, Cannock)
- 🔮 Stafford Sixth Form Partnership
- 🔹 The JCB Academy Sixth Form

3. What are the consequences of not achieving a grade 4 or above in English Language and Maths?

- You will have to continue to study and resit until you achieve a Grade 4.
- It may prevent you from getting on to your preferred course

4. What is a curriculum vitae, CV?

A short summary of a person's career, qualifications, and education.

5. Information that should be included within a CV include

- Name and Contact Information
- Introduction
- Key Skills
- Experience (paid, voluntary or work) experience)
- Education Achievements Interests

References

6. Information that should not be included within a CV include

- Spelling and grammatical errors
- Inappropriate email addresses
- Links to social media accounts that may have unprofessional content
- Negative self-talk
- Lack of clarity about what you are seeking
- Obvious signs you have not checked the job advert

7. What does ATS stand for and what does it do?

ATS: Applicant Tracking System

Before a human looks at the applicant CV, they will be put through an electronic 'ATS', which will scan, sort and rank and filter CVs before a human looks at them.



1. How do you annotate a design?

- What textile techniques have you used in your designs? Why?
- I how does it link to the samples you have done?
- Is your design inspired by any of your sources? How? Why?
- What materials would you use? Why?
- Inv does this design link to your theme?
- What developments would you make to your designs? Why?

2. Key verbs:

- **Construct**: Build or assemble elements.
- **Criticize**: Evaluate or judge design aspects.
- **Demonstrate**: Show or explain how something works.
- Engage: Involve or interact with the design.
- **Examine**: Inspect or analyze closely.
- **Identify**: Recognize and name design elements.
- **Improve**: Enhance or make better.
- **Inspect**: Check or scrutinize closely.
- Interpret: Understand or explain meaning.
- Label: Assign names or tags to elements.
- Manipulate: Adjust or control design elements.
- **Observe**: Notice or watch design details.
- **Prepare**: Get ready or plan design elements.
- **Practice**: Repeatedly work on or refine skills.
- **Relate**: Connect or link ideas or elements.

