


















**Stafford Manor**  
High School

# **Year 11 Autumn Term 1**

## **Core Knowledge**

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



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

## 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. How do you use artists to influence your work?

- 🎨 Incorporating the influence of other artists into your own work can be a powerful way to enrich your creative process and produce more dynamic and meaningful art. Here are some ways you can use artists to influence your work:
- 🎨 **Study Techniques:** Analyse admired artists' methods. Experiment with integrating similar approaches into your own or adapting them to your style.
- 🎨 **Explore Themes:** Reflect on themes explored by others. Consider how they connect with you and reinterpret them in your work.
- 🎨 **Embrace Style:** Incorporate elements of other artists' styles. Experiment with brushwork, colour, composition, or movements that resonate.
- 🎨 **Find Conceptual Inspiration:** Delve into conceptual frameworks behind others' work. Connect these concepts with your own interests for new ideas.
- 🎨 **Respond to Art:** Create in response to other artists. Reference their work, initiate dialogue with their ideas, or incorporate elements into your pieces.

## 3. What different skills can you include in your Art work?

- 🎨 Students are able to use many different medias in their final piece planning designs. You are able to include stitch work on top of your drawings, wire work is a different way of drawing if you make it 2D, or as a sculpture piece if 3D. You can use acrylic paint and add more media to it to make it dry in a 3D manor. Clay work is another skill you can use in your artwork and printing. Printing is something that can be done in so many different ways. Always consider what media you want to use when creating your final piece planning.

# BIOLOGY

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

## 1. How do humans positively affect ecosystems?

- 🌱 Maintaining rainforests
- 🌱 Reducing habitat destruction
- 🌱 Reducing water pollution
- 🌱 Replanting hedgerows and woodlands
- 🌱 Raise awareness.

## 2. How do humans negatively affect ecosystems?

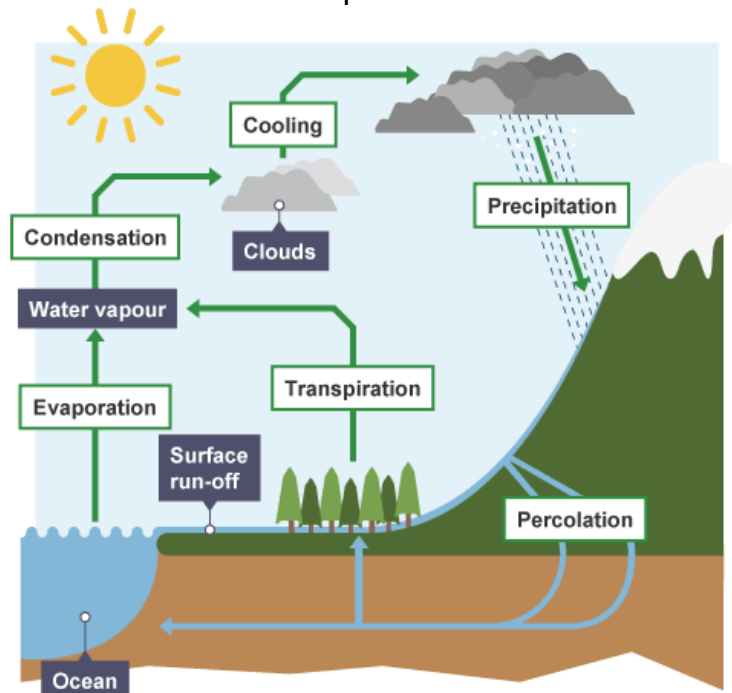
- 🌱 Production of greenhouse gases leading to global warming
- 🌱 Introducing non-indigenous species
- 🌱 Producing sulphur dioxide – causing acid rain.
- 🌱 Clearing land to build on.
- 🌱 Overfishing

## 3. What is eutrophication

- 🌱 Excess fertiliser washes into lake → Algal bloom → Blocks sunlight → prevents photosynthesis → anoxic (no Oxygen) water → organisms die.

## 4. The water cycle

- 🌱 Precipitation → Percolation → Evaporation → Condensation → Precipitation



## 5. The Carbon Cycle

- 🌱 Photosynthesis and Carbon absorption in the seas remove Carbon Dioxide from the atmosphere.
- 🌱 Respiration, Combustion, Decomposition return Carbon Dioxide to the atmosphere.

## 6. What bacteria is involved in the nitrogen cycle.

- |                             |                             |
|-----------------------------|-----------------------------|
| 🌱 Nitrogen fixing bacteria. | 🌱 Denitrifying bacteria     |
| 🌱 Nitrifying bacteria       | 🌱 Decomposing soil bacteria |

# BUSINESS

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

## 1. How can markets be segmented?

- 📍 Location
- 📍 Demographics
- 📍 Lifestyle
- 📍 Income
- 📍 Age

## 2. What is a market map?

- 📍 A diagram that positions all products within a market using two features (e.g. price and quality)

## 3. What are the ways that a business can compete?

- 📍 Price
- 📍 Quality
- 📍 Location
- 📍 Product Range
- 📍 Customer Service

## 4. What are the types of market?

- 📍 Monopoly – a market where there is only business
- 📍 Oligopoly – a market where a few firms dominate the market
- 📍 Competitive – a market where lots of small firms offer very similar products

## 5. What is the difference between an aim and an objective?

Aims are long term goals. Objectives are more specific, measurable, time constrained steps

## 6. What does SMART stand for?

**S**pecific, **M**easurable, **A**chievable, **R**ealistic, **T**ime-framed

## 7. Name three examples of fixed costs

- 📍 Rent
- 📍 Rates
- 📍 Bills (electricity, heating, phone)

## 8. Name three examples of variable costs

- 📍 Raw materials
- 📍 Packaging
- 📍 Delivery Costs

# CHEMISTRY

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

## 1. What are the names of groups 1, 7 and 0?

**Group 1:** The Alkali Metals

**Group 7:** The Halogens

**Group 0:** The Noble Gases

## 2. What are the physical properties of the alkali metals?

- 🌸 **Soft:** Easy to cut
- 🌸 **Low melting points:** Will melt at low temperatures.
- 🌸 **Malleable:** Can be shaped easily

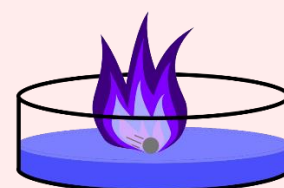
## 3. What do you see when lithium, sodium and potassium are added to water?

### Similarities:

- 🌸 They all **fizz**, **float** and **move** on water.

### Differences:

- 🌸 Potassium moves **faster**, fizzes **more** and sets on fire with a **lilac flame**.



## 4. Word equations for alkali metals and water.

- 🌸 Lithium + water → lithium **hydroxide** + **hydrogen**
- 🌸 Sodium + water → sodium **hydroxide** + **hydrogen**

## 5. What happens to reactivity as you go down group 1?

- 🌸 Reactivity **increases**.

## 6. Why are noble gases inert (unreactive)?

- 🌸 They have a **full outer shell**.
- 🌸 They **don't** need to **lose/gain any electrons**.

## 7. What are helium, argon and neon used for?

|        |                          |  |
|--------|--------------------------|--|
| Helium | <b>Air balloons</b>      | <b>Less dense than air</b> and <b>doesn't react</b>                      |
| Argon  | <b>Light bulbs</b>       | <b>Unreactive</b> and <b>stops oxygen</b> from reacting with the metal   |
| Neon   | <b>Advertising signs</b> | <b>Unreactive</b> and <b>glows</b> when electricity is passed through it |

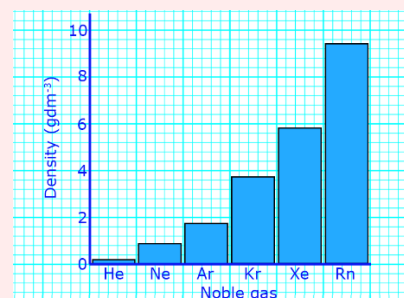
## 8. What happens to density and melting point as you go down group 0?

### Density:

- 🌸 Density **increases** as you go down group 0

### Melting / Boiling Point:

- 🌸 Melting points and boiling points both **increase** as you go down group 0.



# DESIGN TECHNOLOGY

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

## 1. Language for comparing poems

### When poems have similarities

- 🌀 Similarly, ...
- 🌀 Both poems convey / address...
- 🌀 Both poets explore / present...
- 🌀 This idea is also explored in...
- 🌀 Likewise, ...

### When poems have differences

- 🌀 Although...
- 🌀 Whereas...
- 🌀 Whilst...
- 🌀 In contrast, ...
- 🌀 On the other hand, ...
- 🌀 On the contrary, ...

## 2. Language features to consider when exploring a poem

- 🌀 Metaphor – comparing one thing to another
- 🌀 Simile – comparing two things with 'like' or 'as'
- 🌀 Personification – giving human qualities to the nonhuman
- 🌀 Imagery – language that makes us imagine a sight (visual), sound (aural), touch (tactile), smell or taste
- 🌀 Tone – the mood or feeling created in a poem.
- 🌀 Pathetic Fallacy – giving emotion to weather
- 🌀 Irony – language that says one thing but implies the opposite
- 🌀 Colloquial Language – informal language, usually creates a conversational tone or authentic voice.
- 🌀 Onomatopoeia – language that sounds like its meaning.
- 🌀 Alliteration – words that are close together start with the same letter or sound.
- 🌀 Sibilance – the repetition of s or sh sounds.
- 🌀 Plosives – short burst of sound: t, k, p, d, g, or b sound

## 3. How do you respond to a poem?

- 🌀 Read and annotate. Read the poems slowly and carefully two or three times before you start writing your answer. Underline any words and/or images that you could write about.
- 🌀 Always read the line introducing the poems as this will tell you what the poems may be about.
- 🌀 Don't worry if you do not understand every word in a poem. You might be able to work it out; the general mood of the poem might be.

- 🔗 Think about the titles of the poems. They may have an obvious meaning, or they may suggest something about the theme or mood. Titles can be a good way into the poems.
- 🔗 Ask yourself who is speaking the poem and to whom.
- 🔗 Work out the mood and atmosphere by looking at key words. E.g., there may be words which may create a gloomy and depressing mood.
- 🔗 What does the poet want the reader to 'take away' from reading the poem?

#### 4. Themes in the Power and Conflict Anthology:

- 🔗 Conflict / Suffering / Reality of War / Nature / Patriotism / Bravery / Childhood / Identity / Protest / Power of Nature / Decay / Pride / Control / Jealousy / Fear / Loss / Anger

#### 5. How many marks is the poetry anthology question worth?

- 🔗 30 marks

#### 6. English Literature Assessment Objectives:

AO1

- 🔗 Write a response related to the key word in the question
- 🔗 Use comparative language to explore both poems
- 🔗 Use a range of evidence to support your response and to show the meaning of the poems.

AO2

- 🔗 Comment on the effect of the language in your evidence, including individual words
- 🔗 Identify any use of poetic techniques and explain their effects

AO3

- 🔗 What might the poet's intentions have been when they wrote the poem? Comment on the historical context – when was the poem published and what impact might it have had then, and today.

#### 7. Revising Poetry 😊 Ask yourself:

- 🔗 What was the name of the last poem you studied?
- 🔗 What happened in the poem?
- 🔗 Write down as many quotes or words from the poem as you can think of?
- 🔗 What context can you remember?
- 🔗 Which poem that you have already studied might be a suitable comparison poem?




# FRENCH

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

## 1. une association caritative; un don; donner; apporter

 A charity; a donation; to give; to bring

## 2. la faim; la misère; la pauvreté; la maladie; le SIDA

 Hunger; poverty; poverty; illness; AIDS


## 3. lutter; faire du bénévolat;

 To struggle; to do charity work


## 4. Les fruits; les légumes; la viande; le poisson; des produits laitiers

 Fruit, vegetables, meat, fish, dairy products


## 5. manger; boire; prendre

 To eat, to drink, to take (to have a meal or drink)

## 6. C'est; il y a

 It is, there is / there are

## 7. Ce serait; il y aurait

 It would be, there would be


## 8. C'était; il y avait

 It was, there was / were

# GEOGRAPHY

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

## 1. What do we use to measure a country's development?

 Human development index (HDI)

## 2. What shows a country's population changes over time?

 Demographic transition model (DTM)

## 3. How do we determine the natural increase in population?

 Birth rate minus death rate = natural increase


## 4. What does NEE stand for?

 Newly emerging economy


## 5. What is the term for how long a person is expected to live?

 Life expectancy

## 6. What does TNC stand for?

 Transnational corporation

## 7. What is an example of a job in the primary industry?

 Mining, farming, fishing

# HEALTH & SOCIAL CARE

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

## 1. Define a barrier to accessing services

- Something unique to the health and social care system that prevents an individual to access a service.

## 2. How can **physical barriers** be overcome?

- Providing ramps, wider doorways, accessible toilets/rooms, stair lifts and hoists.

## 3. How can barriers experienced by people with a **sensory disability** be overcome?

- Provide equipment such as a hearing loop, communication cards, large print leaflets and braille leaflets.
- Ensuring trained professionals are available to interpret or use British sign Language (BSL)

## 4. People from different **social and cultural backgrounds** experience barriers because?

### How can the barriers be overcome?

- Professionals showing a lack of awareness and understanding of their values and beliefs.
- This can be overcome by having 'awareness campaigns, posters and leaflets. Collaborating with community and faith groups to educate and spread understanding of different social and cultural beliefs.

## 5. How can barriers experienced by an individual with **English as an additional language** be overcome?

- Professionals can provide information in other languages, offer face-to-face or over the phone interpretation services and offering longer appointments to allow for interpretation to take place.

## 6. How can **geographical barriers** experienced by individuals be overcome?

- Offer community transport schemes for service users, home visits or where possible carry out appointments over the phone or on a video call.

## 7. What can be done to make health and social care services more accessible to individuals with **learning disabilities**?

- Allowing an advocate to attend the appointment with the service user to ensure all information is understood and care is appropriate.
- Offer 'Quiet Clinics', where there are quiet waiting areas.
- Use communication cards
- Provide 'easy read' information/leaflets.

## 8. What can be done to make health and social care services more accessible to individuals experiencing **financial difficulties**?

- Provide NHS exemption certificates so individuals do not need to pay for their prescriptions.
- Offering NHS vouchers for eye tests, glasses and lenses.
- Providing community transport or the healthcare travel costs scheme (HTCS)

# HISTORY

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

**1. When did Chad build a religious site in Lichfield?**

 669

**2. When did Chad die?**

 672

**3. When was the first Cathedral built to house Chad's shrine?**

 700

**4. What did the Normans do to all English cathedrals?**

 Built them in stone

**5. What type of architecture was Lichfield Cathedral redesigned in by 1340?**

 Gothic

**6. What happened in 1538?**

 St. Chad's shrine was destroyed


**7. What was Lichfield Cathedral used as during the Civil War?**

 A garrison


**8. How many sieges happened during the Civil War?**

 3

**9. When was the Cathedral left to rot?**

 1650s

**10. When was the Cathedral restored?**

 1660s

**11. Which famous scientist lived in the Cathedral Close in the eighteenth century?**

 Erasmus Darwin

**12. Who renovated in the cathedral in the nineteenth century?**

 George Gilbert Scott

**13. As well as religious site, what is Lichfield Cathedral used as today?**

 A tourist attraction

## 1. What is a key field?

The key field is a unique identifier for each record.

## 2. How does a database store data?

In tables

## 3. What is a relational database?

A relational database has more than one table and the tables are linked using key fields

## 4. What are the advantages of using a relational database?

The details need only be entered into the database once.

Because of this, mistakes are less likely to happen and if there were a mistake in a customer's record, for example, correcting it will correct the mistake database-wide.

Duplication is avoided - this keeps the database's file size down.

## 5. What is a data capture form?

Before setting up a database the data must be collected. This can be done using a data capture form. A data capture form is designed to collect specific data.

## 6. Why might an organisation use a database?

- Databases can store very large numbers of records efficiently (they take up little space).
- It is very quick and easy to find information.
- It's possible to add new data and edit or delete old data quicker.
- Data can be imported into other applications, for example a mail-merge letter to a customer saying that an MOT test is due.
- More than one person can access the same database at the same time - multi-access.
- Security may be better than in paper files.

## 1. Key word definitions:

- Index:** Another word for power
- Consecutive:** Numbers that follow each other on the number line

## 2. What are congruent shapes?

Shapes that are exactly the same. (they may be rotated or reflected).

## 3. What are similar shapes?

When a shape is enlarged, the result is a similar shape.

## 4. What are the four conditions for unique triangles?

ASA, SAS, SSS, RHS

## 5. What are the four power facts?

$$n^0 = 1$$

$$n^1 = n$$

$$n^{-1} = \frac{1}{n}$$

$$n^{-2} = \frac{1}{n^2}$$

## 6. What is standard form?

Standard form is a way of writing very big or very small numbers.

## 7. What are the three parts to a number written in standard form?

$$A \times 10^n$$

Where A is any number between 1 and 10.

## 8. How do you add or subtract numbers in standard form?

Convert back to ordinary form first, then add or subtract as normal.

## 9. How do you multiply numbers in standard form?









Rearrange the order of the calculation. Calculate the numbers first, then use the index laws on the powers of ten.



# PHYSICAL EDUCATION

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

## Component 1 How to Optimise Training and Prevent Injury (Performance Enhancing drugs)

| Drug                       | Effect on performance   | Health risks  | Who might take it   |
|----------------------------|---|---|---|
| <b>Anabolic Steroids</b>   | Allows performers to train longer and harder<br>Increases protein synthesis helping develop lean muscle mass. Speeds up recovery time | <ul style="list-style-type: none"> <li>Liver damage</li> <li>CHD</li> <li>Testicular atrophy</li> <li>Infertility</li> <li>Mood swings/aggression</li> </ul>                  | Activities that require power: <ul style="list-style-type: none"> <li>Sprinters</li> <li>Rugby players</li> <li>Weight lifters</li> <li>Boxers</li> </ul>  |
| <b>Beta Blockers</b>       | Beta blockers slow heart rate and reduce anxiety, allowing the performer to remain calm   | <ul style="list-style-type: none"> <li>Disturbance of sleep</li> <li>Tiredness</li> <li>Lower blood pressure</li> <li>Slowing of heart rate</li> </ul>                        | Activities that require precision: <ul style="list-style-type: none"> <li>Archery</li> <li>Diving</li> <li>Shooting</li> </ul>                             |
| <b>Diuretics</b>           | Diuretics achieve quick weight loss (fluids)<br>They also mask other drugs making them harder to detect                               | <ul style="list-style-type: none"> <li>Dehydration</li> <li>Nausea/headaches</li> <li>Heart/kidney failure</li> </ul>   | Activities with weight categories: <ul style="list-style-type: none"> <li>Boxing</li> <li>Jockey</li> <li>Drug cheats</li> </ul>                           |
| <b>Narcotic Analgesics</b> | Narcotic analgesics increases the performers pain threshold so can mask injuries<br>They can give a feeling of invincibility          | <ul style="list-style-type: none"> <li>Nausea/vomiting</li> <li>Anxiety/depression</li> <li>Kidney/liver damage</li> <li>Addiction</li> <li>Risk of further injury</li> </ul> | Any sport that a performer is injured or: <ul style="list-style-type: none"> <li>Boxers</li> <li>Sprinters</li> <li>Footballers</li> </ul>                 |
| <b>Peptide Hormones</b>    | <b>EPO</b><br>Erythropoietin (EPO)<br>Can increase red blood cell production increasing O <sub>2</sub> delivery                       | <ul style="list-style-type: none"> <li>Blood thickness</li> <li>Blood clots</li> <li>Strokes/heart attack</li> </ul>  | Aerobic events e.g. long distance: <ul style="list-style-type: none"> <li>Running</li> <li>Cycling</li> </ul>    |
|                            | <b>HGH</b><br>Human Growth Hormone helps gain muscle mass and burns fat   | <ul style="list-style-type: none"> <li>Arthritis</li> <li>Heart failure</li> <li>Abnormal feet/hands</li> </ul>   | Strength events: <ul style="list-style-type: none"> <li>Weightlifting</li> <li>Sprinting</li> </ul>    |
| <b>Stimulants</b>          | Stimulants increase alertness, reduce tiredness and increase heart rate   | <ul style="list-style-type: none"> <li>Insomnia</li> <li>Anxiety/aggression</li> <li>Irregular heart rate</li> </ul>  | Alert and aggressive sports: <ul style="list-style-type: none"> <li>Rugby</li> <li>Boxing</li> </ul>    |
| <b>Blood Doping</b>        | Blood doping is when blood is put into a performer's body prior to an event (more red blood cells = more O <sub>2</sub> )             | <ul style="list-style-type: none"> <li>Infection</li> <li>Blood clots</li> <li>Stroke</li> <li>HIV/hepatitis</li> </ul>   | Aerobic events e.g. long distance: <ul style="list-style-type: none"> <li>Running</li> <li>Cycling</li> </ul>    |






# PHYSICS

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

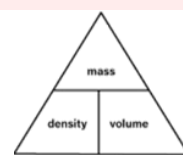
## 1. What is the particle model?

Everything is made of tiny **particles**, these particles are arranged differently for solids, liquids and gases.

|                          | Solid   | Liquid  | Gas   |
|--------------------------|---|---|---|
| Arrangement of particles | Close together  | Close together  | Far apart   |
|                          | Regular pattern   | Random arrangement  | Random arrangement  |
| Movement of particles    | Vibrate on the spot   | Move around each other  | Move quickly in all directions  |
| Diagram                  |  |  |  |

## 2. What is density?

- The density of a substance is the **mass of a certain volume**.
- Solids** are **denser than liquids**, which are **denser than gases** because the particles are more tightly packed.
- Density = mass ÷ volume**



## 3. How can we investigate density?

- To investigate density, you need to measure **mass** and **volume**.
- For solids:** measure **mass** with a **balance** and measure **volume** by filling a **displacement can** and measure the volume of water displaced by the solid.
- For liquids:** Measure the **volume** in a **measuring cylinder** and find the **mass** by placing a **beaker on a balance**, press **zero** now add your liquid.

## 4. How are energy and temperature linked?

- Temperature and thermal energy are linked but are not the same- 200 ml of 50°C water stores twice as much energy as 100 ml of 50°C water.
- When energy is transferred to an object the particles **vibrate/move faster**.

## 5. Why does temperature not change during a state change?

- During a change of state, the particles do not move faster or slower- therefore the temperature does not change.
- During melting, evaporating or boiling **energy** is being **used** to **weaken** the **bonds** between molecules- there is **no heating**.

## 6. How can we investigate temperature?

- To investigate the **temperature change** due to heating you need to use:  
**Energy = mass x specific heat capacity x temperature change**
- Measure **energy** using a **joule meter**, **mass** using a **balance** & measure **temperature change** using a **thermometer** (end temp – start temp).

## 7. What is gas pressure?

- Gas pressure is due to particles collide with the walls of a container.
- As the **temperature** of a gas **increases** so does the **pressure**.
- The units of pressure are **pascals** (Pa), 1 Pa = 1 N/m<sup>2</sup>.

## 8. How can we investigate stretching springs & bands?

- Measure the **force** using a **newton meter**.
- Measure **extension** using a **ruler** to find the **stretched length** - the **original length**
- Force = spring constant x extension**
- Energy stored = ½ spring constant x extension<sup>2</sup>**



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

## 1. Why do young people choose to carry a knife?

- Protection
- Fear
- Other people are doing it
- Forced to

## 2. What are the risks of carrying a knife?

- Ending up in hospital with serious injuries
- You could make a bad situation worse
- You could get a criminal record
- Carrying a knife can be punishable by up to 4 years in prison
- You could die
- You could kill or seriously injure someone

## 3. Examples of Human Trafficking include?

- Kidnapping
- Abduction
- Illegal immigration

## 4. List examples of Modern Day Slavery in the UK

- Forced Sexual Exploitation
- Domestic Slavery
- Forced Marriage
- Forced labour; e.g. Nail bars, Car Washes, Cleaners,
- Forced into Criminal Networks
- Running Drugs and Trap Houses
- Forced into 'county lines'

## 5. What does employability mean?

- How 'employable' you appear to potential employers
- (How your skillset, qualifications and personal qualities meet the vacancies you are applying for.)*

## 6. When looking at possible **career paths** what information should you research about?

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>Duties of the job role</li><li>Qualifications needed</li><li>Salary</li><li></li></ul> | <ul style="list-style-type: none"><li>Working hours</li><li>Day to day tasks</li><li>Skills and knowledge needed</li></ul> |
|--|--|