



DONCASTER UTC

Year 9

Learning Journeys

CREATE

INNOVATE

INSPIRE

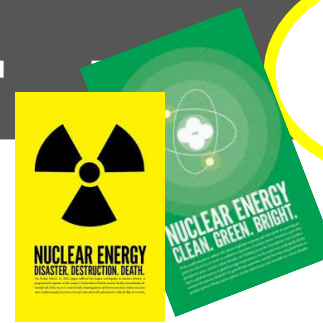
EXCEL

English Learning Journey Year 9

Autumn
1

STEM articles analysis, evaluation leading to descriptive writing

A collection of extracts and articles will be explored surrounding the conflicts of science, technology and modern culture.



GCSE LANG
Descriptive writing about conflict

Autumn 2

GCSE LIT
An Inspector Call – J. B. Priestley
'A mysterious inspector interrupts a wealthy family party with shocking news'

Developing descriptive skills.

Wider reading around key themes such as: capitalism, socialism, equality and historical gender roles in society.



GCSE LIT
An Inspector Calls – Exam Technique and Assessment

Developing academic writing skills.

Descriptive skills to be applied to a new, Edwardian setting...



Spring 1

GCSE LIT
Exploring Texts:
War and Conflict
Poetry

*Theirs not to make reply,
Theirs not to reason why,
Theirs but to do and die!*

Investigation into what ethical living is and how non-fiction texts present this in bias ways. A nice cross-curricular topic.



Students are introduced to their poetry anthologies. First to explore: the effects of war and conflict. Students will develop their oracy through debate.

Students develop the skills to analyse poetry and develop comparison skills.

GCSE LANG
Ethical Living: Sustainability and the Future

Spring 2

GCSE LIT
Exploring Texts:
Poetry – Exam Technique and Assessment

Students come back to their poetry anthologies. They explore the power of nature and its impact on society. Lot's of topics to discuss...



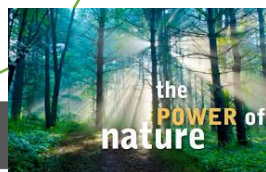
Students will sit a full English Literature Paper 2. From this, students will be put on the right pathway to Year 11.

GCSE LIT
Exploring Texts:
Power of Nature and Place Poetry

Students will refine their academic writing skills.

GCSE READY
LITERATURE
PAPER 2
FORMAL
ASSESSMENT

This scheme is an introduction to Shakespeare. Students will explore the themes and ideas surrounding its creation...



Summer 1

GCSE LIT
William Shakespeare – Macbeth
'Look like the innocent flower, but be the serpent under't'

Throughout this term, students will work on their communication skills. They will present their ideas to small groups and fully explain opinions.



GCSE LIT
William Shakespeare – Macbeth
Character Discussions



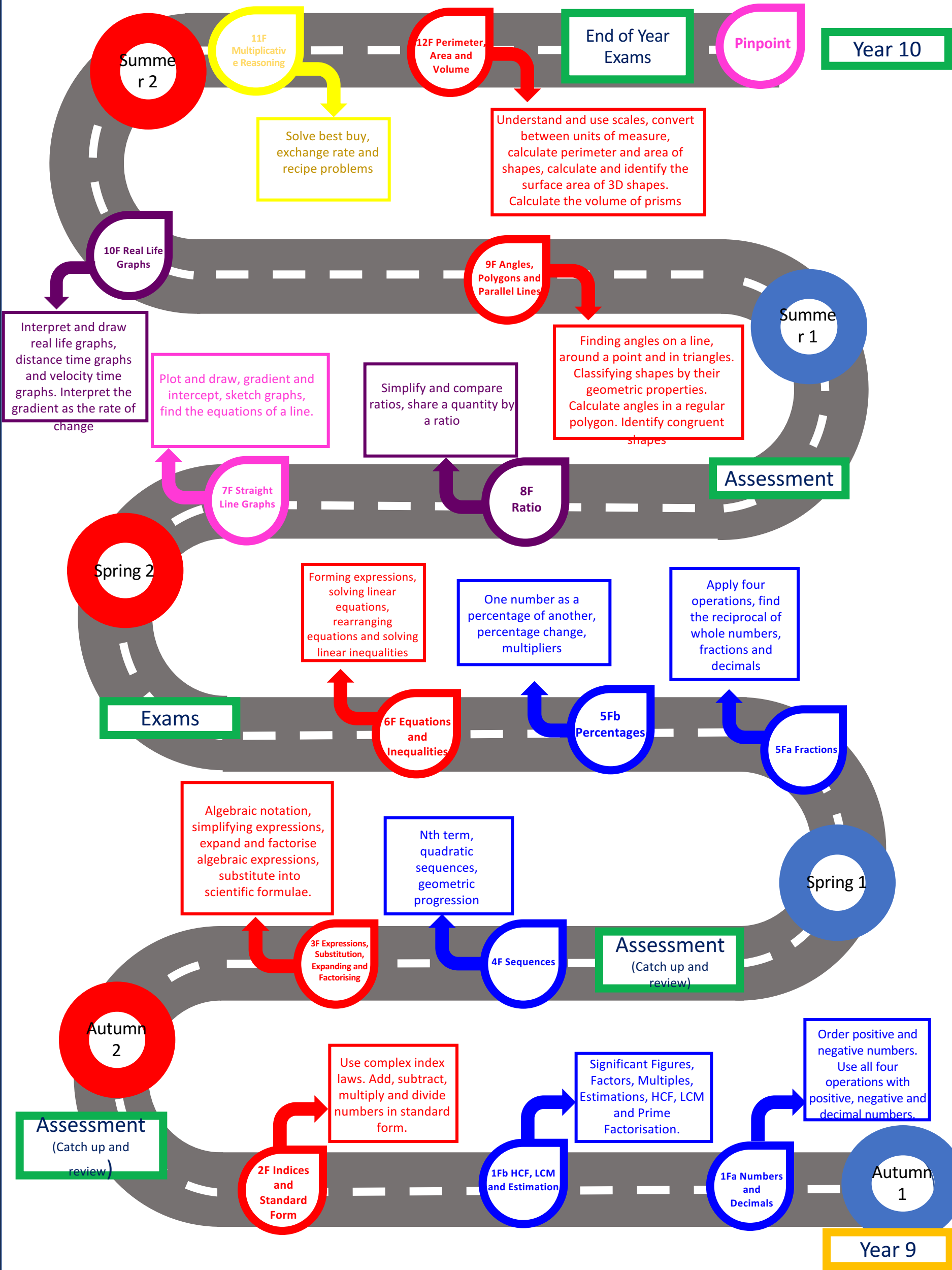
Summer
2

Let's do some drama...

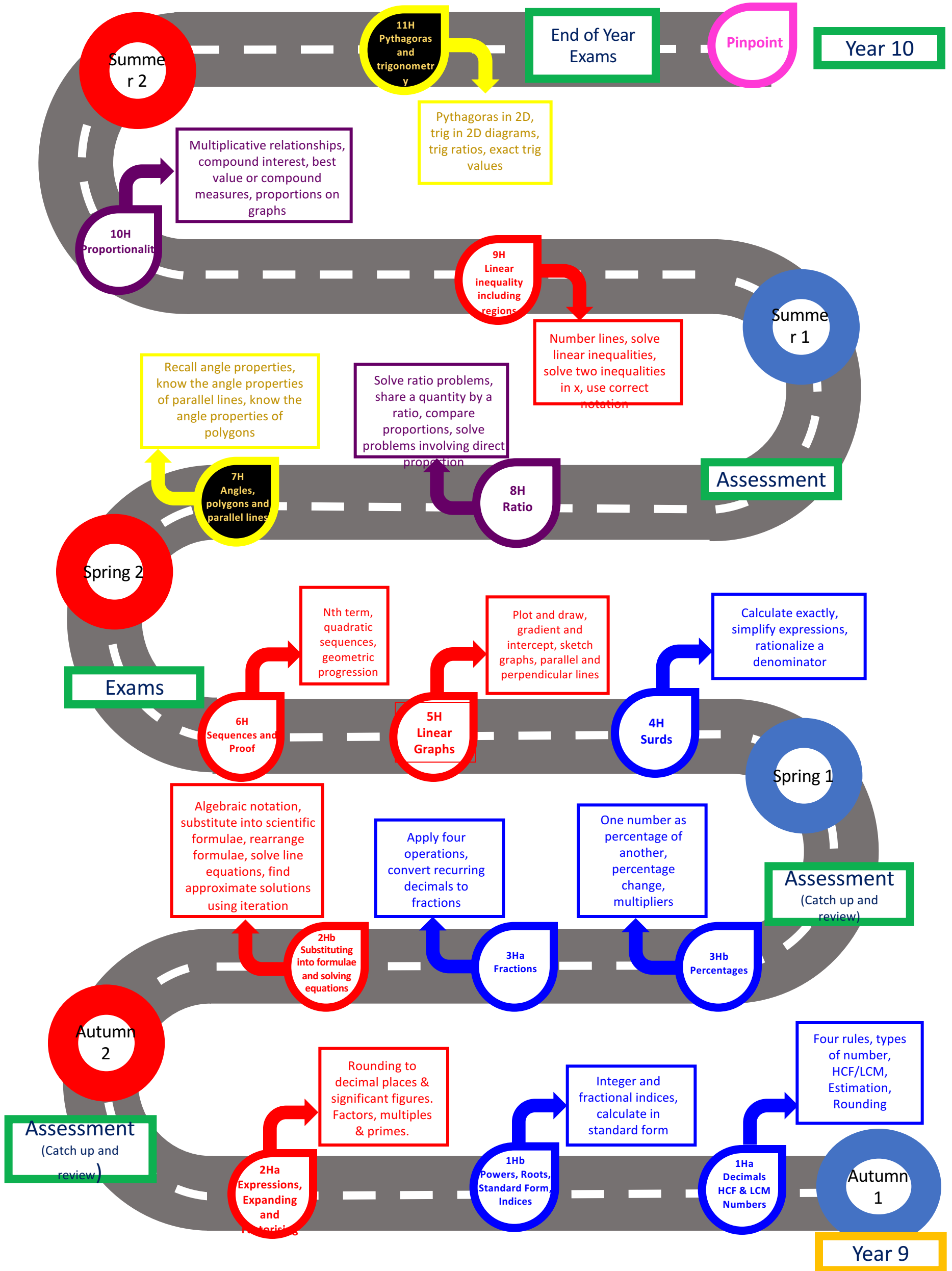
Foundation Maths Learning Journey Year 9



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Higher Maths Learning Journey Year 9



Autumn
1

Energy stores

- Chemical
- Elastic
- Gravitational potential
- Nuclear
- Kinetic
- Magnetic
- Thermal
- Electrostatic

During this half term students learn about the different types of energy stores and be able to describe these transfers. Students will also be able to calculate speed and acceleration



Speed and acceleration

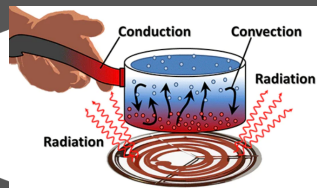
Autumn 2

Students will learn about reaction time, the factors that affect in and braking distances. They will also have an introduction to forces, vectors and balanced forces.



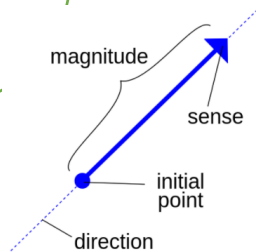
Reaction time and braking distances

Energy Transfers



This half term will be spent looking at conduction, radiation, specific heat capacity and how its calculated. Students will also look at methods of insulation and how these reduce heat loss.

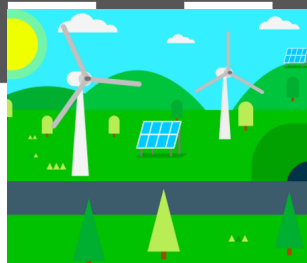
Forces and vectors



Spring 1

Sources of Energy

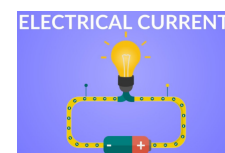
Energy will be the focus this half term; looking at where the energy on Earth comes from and the issues surrounding its use.



Heating and insulation

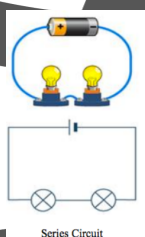
Spring 2

Following on from the energy sources topic students will explore electrical current and charge

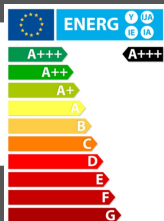


Appliances and efficiency

Electricity and Circuits



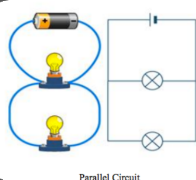
Summer 1



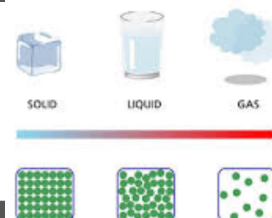
During this half term students will study electrical circuits, alternating current, energy transfers and calculating the efficiency of appliances.

Summer 2

States of matter



Students will study states of matter, changes in state and specific latent heat capacity. Students will also study gas pressure and temperature.



Gas pressure

Year 10



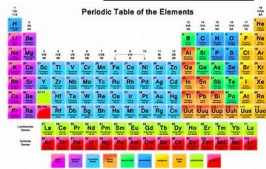
Chemistry Learning Journey Year 9

Autumn
1

Elements,
elements,
and
compounds

During this half term students what atoms, elements, compounds and mixtures consist of. They will learn how the periodic table is arranged and triple students will also cover its history.

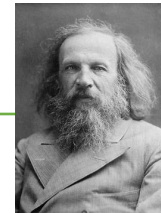
The
periodic
table



Autumn 2

During this half term students will learn about the different types of bonding and the properties of these compounds. They will also cover nanoparticles and triple students will learn about the applications of smart materials

Types of
bonding



Nanoparticles
and smart
materials

During this half term students will learn about the Earth and its atmosphere. Triple students will look at how the atmosphere has evolved. Students will find out about the carbon cycle and the different types of rocks in the Earth's crust.

The Earth and
atmosphere



Spring 1

During this half term students will learn about acids, alkalis and the practical aspects of neutralisations. They will cover making salts as well as some of the uses of them. Triple students will investigate the use of indicators as well as the how metals react.

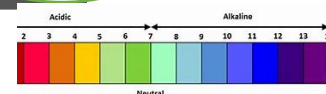
Acids and
alkalis

Rocks and the
carbon cycle



Spring 2

During this half term students will learn about the reactivity of metals and its applications as well as the importance of conserving mass in a chemical reaction. Triple students will also learn how to carry out some chemical calculations and understand why a high atom economy is an important is industrially important.



Neutralisati
on and
making
salts

The reactivity
series

During this half term students will learn about global warming and the effect of climate change on the Earth's atmosphere. Students will also learn about the importance of recycling on the environment



Summer 2

Conservation
of mass

Recycling



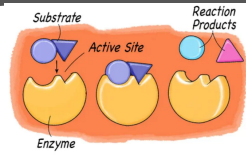
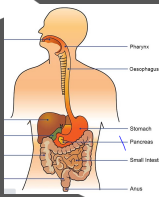
Global
warming
and
climate
change



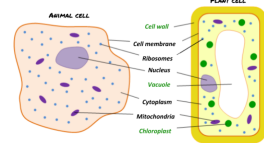
Year 10

Autumn 1

Cells, Movement of Substances & Digestion



Students study the key underpinning principals of the structure of cells, specialised cells and how substances move in and out of them.



Students then link the movement of substances and cells to how substances diffuse into and out of cells and its importance in digestion.

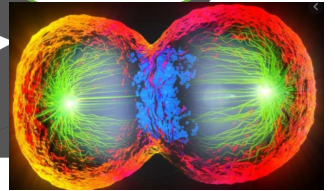
Enzymes and Food Testing

Autumn 2

Cell Division



Students learn about the role of enzymes in digestion and the tests for key food groups.

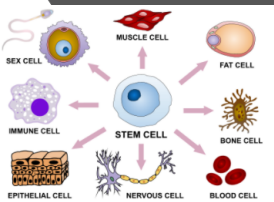
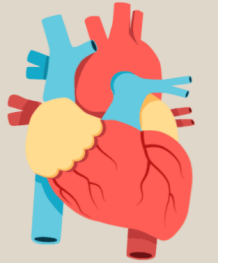


Stem Cells

How cell division occurs as the method of growth and repair is taught. Stem cells, their use in medicine and the ethics surrounding them are considered.

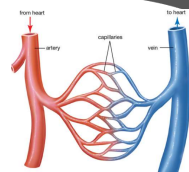
The Heart

The structure of the heart is taught as well as the components of the blood and their function.



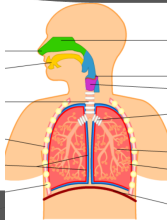
Spring 1

The different types of blood vessels are compared in terms of both structure and function. The structure of the breathing system is also considered.



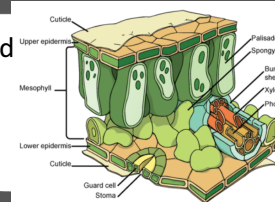
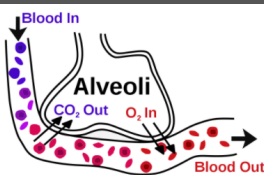
Blood and blood vessels

Breathing System



Spring 2

The structure of the alveoli considered and linked to diffusion and specialised cells including the roles of goblet cells and ciliated cells.



Students study the structure of the leaf and the functions of its parts.

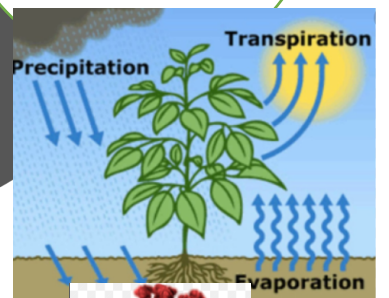
Plant tissues and organs

Gas Exchange



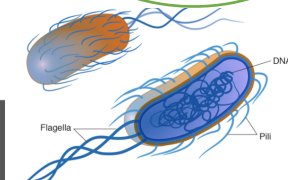
How water moves through the plant and lost through the leaves under different conditions.

Transpiration

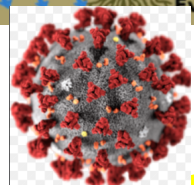


Summer 2

What is health and disease is considered along with the defences that human body has to avoid disease. The causes of some diseases are also taught.



Bacterial and Viral Diseases



Health and disease

Year 10

iMedia Learning Journey Year 9

Autumn
1

Understand the purpose and content of pre-production

Learners to understand pre-production skills used in the creative and digital media sector. It will develop their understanding of the client brief, time frames, deadlines and preparation techniques that form part of the planning and creation process.

Mind Maps
Mood Boards

Understand the purpose and content of pre-production

Autumn 2

Story Boards

Understand the purpose and content of pre-production

Wireframes

Scripts

Be able to plan pre-production

Requirements

Planning

Time Scales

Legislation

Be able to plan pre-production

Understand the basics of digital graphics. They will learn where and why digital graphics are used and what techniques are involved in their creation.

Spring 1

Data Protection

Copyright

Be able to produce pre-production documents

Create Mind Maps
Create Story Boards

Spring 2

Create Scripts

Be able to produce pre-production documents

review a pre-production document

Be able to review pre-production documents

Summer 1

Identify a pre-production document

R082

Understand the purpose and properties of digital graphics

Properties

File formats

Summer 2

Understand the purpose and properties of digital graphics

Be able to plan the creation of a digital graphic

Work plans

Be able to plan the creation of a digital graphic

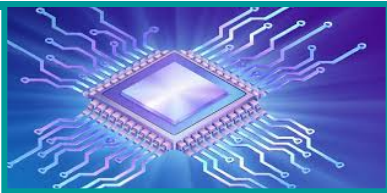
Image assets

Photoshop techniques

Year 10

Autumn
1

CPU
Architecture



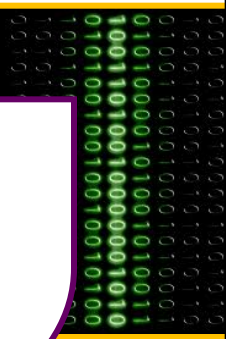
This term students will learn about systems architecture, how the CPU and all components connected to a computer communicate.

Autumn 2

Primary &
Secondary
Storage

Students will learn how computers read and process data and explore how different storage devices read/write data.

Data
Representation



Compression

This term students will learn how computers compress data and the effects of each method.

Network
Topologies



Spring 1

Protocols

Students will learn about networks and discover the different communication hardware required for them to function.

Wired and
Wireless
Networks

Spring 2

Systems
Security

This term students will learn how computers deal with threats and identify measures that can be put in place to make computer systems more secure.

Computer
Systems



Summer 1

For the last term, students will learn about operating systems, applications software and explore ethical issues in computing.

Operating
Systems



Summer 2

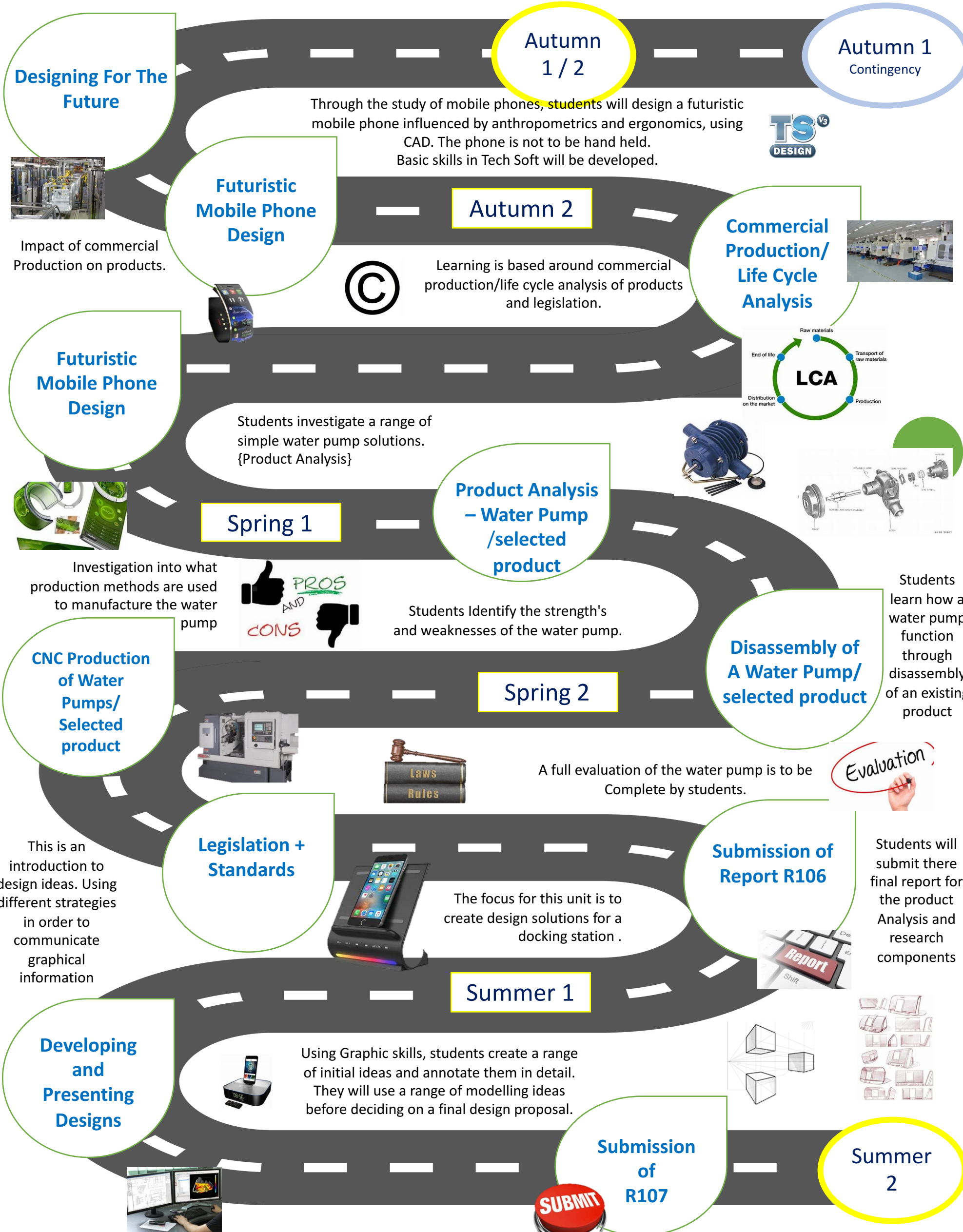
Utility
Software



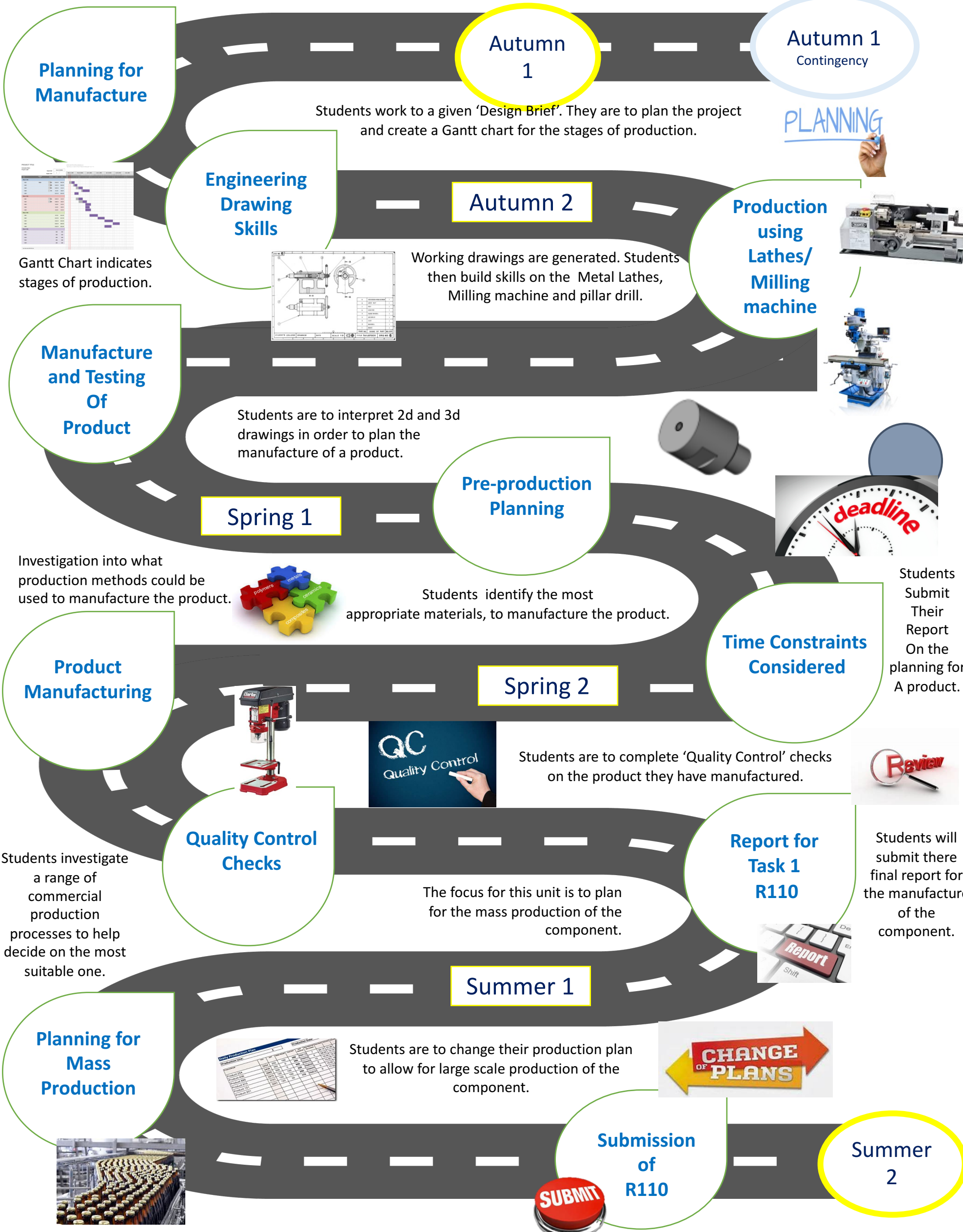
Ethics in
computing

Year 10

Engineering Design Learning Journey



Engineering Manufacture Learning Journey



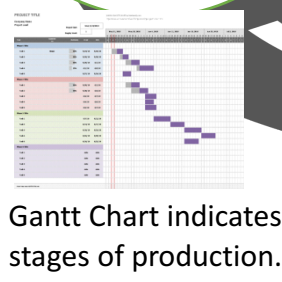
Autumn 1

Planning for Manufacture

Students work to a given 'Design Brief'. They are to plan the project and create a Gantt chart for the stages of production.

Autumn 1 Contingency

PLANNING

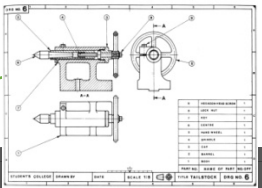


Engineering Drawing Skills

Autumn 2

Working drawings are generated. Students then build skills on the Metal Lathes, Milling machine and pillar drill.

Production using Lathes/ Milling machine



Manufacture and Testing Of Product

Students are to interpret 2d and 3d drawings in order to plan the manufacture of a product.

Spring 1

Pre-production Planning

Investigation into what production methods could be used to manufacture the product.



Students identify the most appropriate materials, to manufacture the product.



Time Constraints Considered

Students Submit Their Report On the planning for A product.

Product Manufacturing

Spring 2

Students are to complete 'Quality Control' checks on the product they have manufactured.



Quality Control Checks

Report for Task 1 R110

Students will submit there final report for the manufacture of the component.

Students investigate a range of commercial production processes to help decide on the most suitable one.

Summer 1

The focus for this unit is to plan for the mass production of the component.



Students are to change their production plan to allow for large scale production of the component.



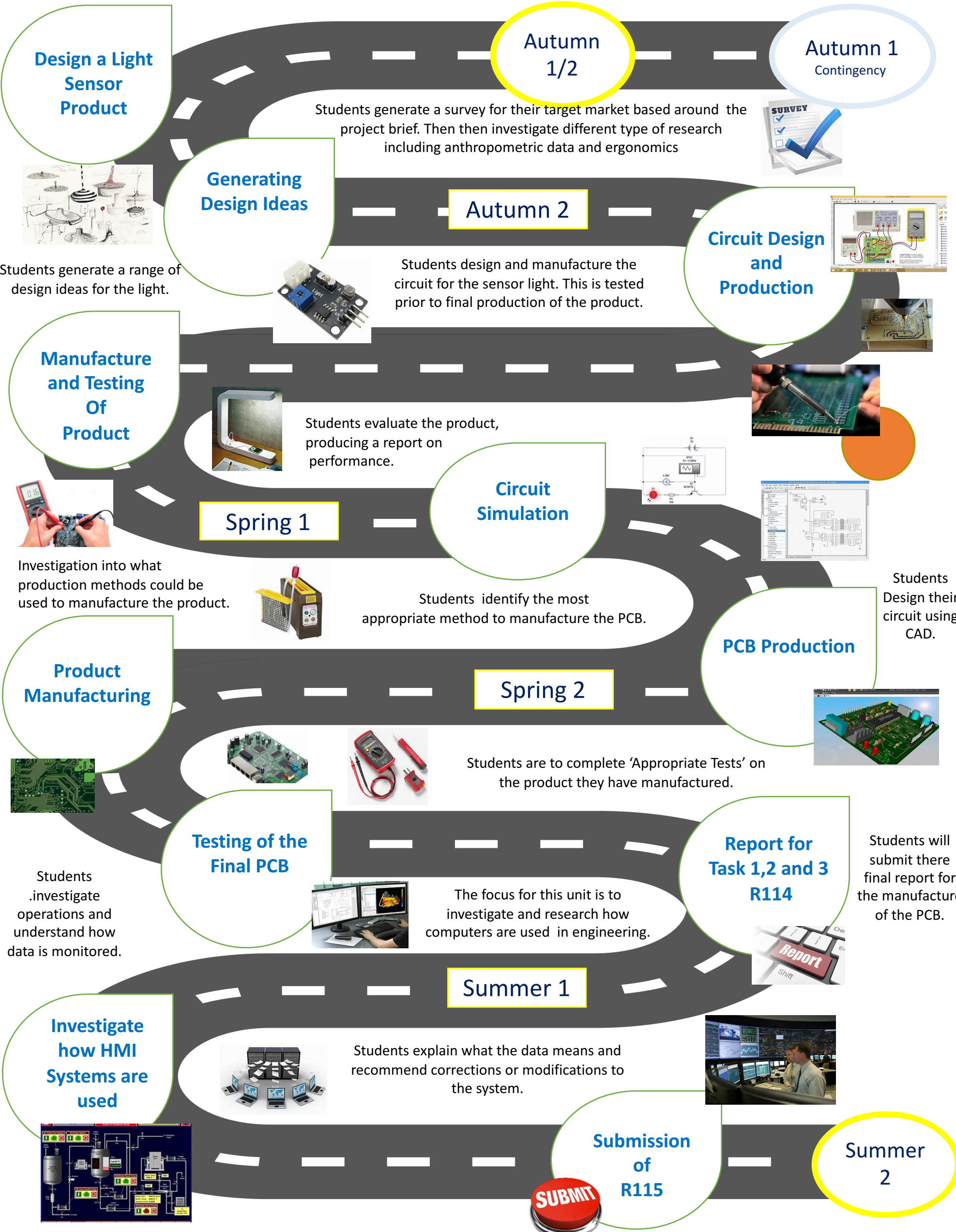
Planning for Mass Production

Submission of R110

Summer 2



Engineering Systems and Control Learning Journey



Design a Light Sensor Product



Students generate a range of design ideas for the light.

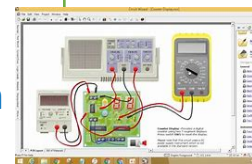
Generating Design Ideas



Students design and manufacture the circuit for the sensor light. This is tested prior to final production of the product.

Autumn 2

Circuit Design and Production



Manufacture and Testing Of Product



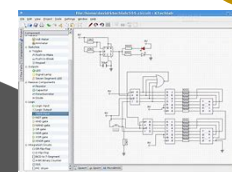
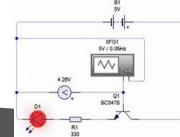
Investigation into what production methods could be used to manufacture the product.



Students evaluate the product, producing a report on performance.

Spring 1

Circuit Simulation



Students identify the most appropriate method to manufacture the PCB.

Spring 2

PCB Production

Students Design their circuit using CAD.



Product Manufacturing



Students investigate operations and understand how data is monitored.

Testing of the Final PCB



Students are to complete 'Appropriate Tests' on the product they have manufactured.

Report for Task 1,2 and 3 R114

Students will submit there final report for the manufacture of the PCB.



The focus for this unit is to investigate and research how computers are used in engineering.



Summer 1

Investigate how HMI Systems are used



Students explain what the data means and recommend corrections or modifications to the system.



Submission of R115

Summer 2



Business Studies Learning Journey Year 9



**Business aims
And
objectives**

Entrepreneur

LO1

**Autumn
1**

Students will study entrepreneurship, business organisations and the importance of stakeholders.



**Stakeholder
engagement**

Autumn 2

Structures



**LO1
Exam**

**Market
research**

**Marketing
mix**

LO2



Students will study the marketing mix, market research, along with market and orientation types.



Spring 1

**Market
orientation**

**Market
types**

**LO2
Exam**



**Lean
Production**

Outsourcing

LO3

Spring 2



Students will study the operations management e.g. lean production methods, production methods, quality control and quality assurance.

**Maintaining
and improving
quality**

**Production
methods**

Summer 1

**LO3
Exam**



Students will study the internal influences on a business such as customer service, investing in staff and the importance of motivation..



**Internal
growth**

**Internal
influences**

**Customer
service**

LO4

**LO4
Exam**

Students will study the external influences on a business such as GDP, interest rates, key business legislation and changes in tax rates



Summer 2

LO4

**External
influences**

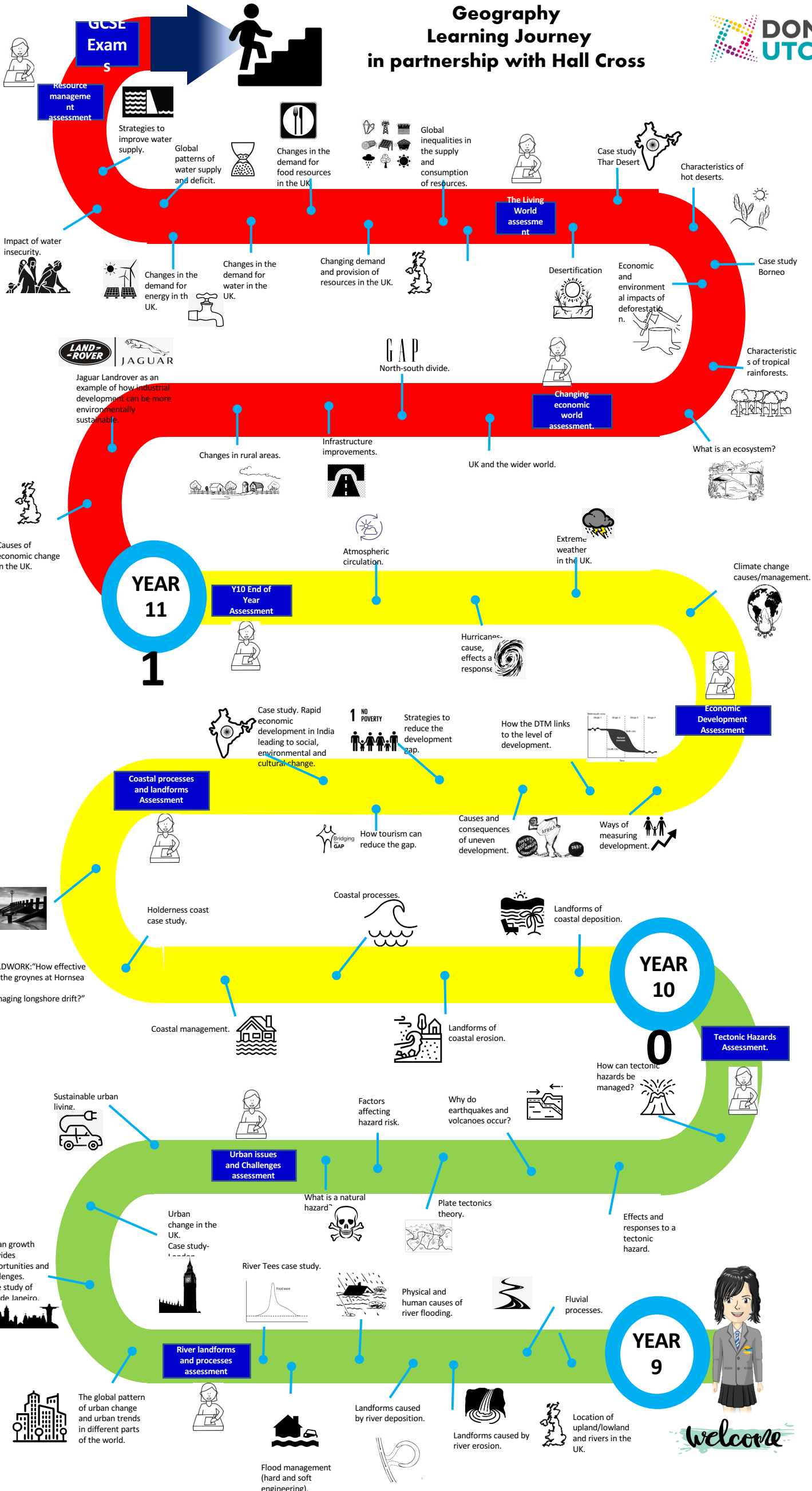
**External
growth**

**LO5
Exam**

Year 10

Geography Learning Journey

in partnership with Hall Cross



welcome

Citizenship Learning Journey Year 9

National identity

Modern British Values

Autumn 1

Mutual respect in a diverse society

Citizens and different identities



Non-government organisations

Autumn 2



Role of the UK in international politics

Brexit

Life in modern Britain

Holding people in power to account

Rights and Responsibilities

Justice and Discrimination

Citizenship participation



Civil and Criminal matters

Spring 1

Laws, Rights and Freedoms



Using the media to make a change

The changing rights of citizens

Legal entitlements

Spring 2

The justice system

Rights and Responsibilities

International Law and Conflicts



Politics and participation

Summer 1

Human Rights

Youth Offenders

Summer 2

Values underpinning democracy

Values underpinning democracy



Types of crime

British Constitution

Politics and participation

Year 10

Mental health in the workplace

Healthy Relationships