

DE LA SALLE SCHOOL
ST HELENS
YEAR 7 – SCIENCE: Circle of Life
Half Term 4/5/6



By the end of this half term I will:

- Describe the changes that occur in males and females during puberty
- Know the parts of the male and female reproductive system and their function
- Know what happens during the menstrual cycle
- Know what happens during fertilisation
- Be able to explain the stages of pregnancy
- Know how maternal lifestyle can affect the developing child
- Understand the role of DNA, draw and explain simple genetic cross diagrams
- Be able to explain what is meant by natural selection
- Know the term biodiversity and the role of “gene banks”

Key Terms I will learn this half term:

- Puberty
- Menstrual cycle
- DNA
- Fertilisation
- Embryo
- Zygote
- Gamete
- Gene bank
- Evolution
- Natural selection
- Hormone
- Variation

Learning Outcomes

Literacy Focus

Homework

Summer term weeks 1-2 – I will be able to:

- Understand what DNA is and what it does
- What the structure of DNA is and how this helps reproduction
- To understand what we mean by inheritance, and variation
- To understand natural selection based on inheritance and variation

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Make a labelled model of the structure of DNA,
or
Describe how an animal you are interested in has changed over time due to natural selection.

Summer term weeks 3-4 – I will be able to:

- Know the parts of the male and female reproductive system and the function of these parts.
- To know the changes that occur to male and female during puberty.
- To be able to describe the menstrual cycle.

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Learn the parts of the reproductive system and the function of these parts for a test in class.

Summer term weeks 5-6 – I will be able to:

- Know what happens during fertilisation
- Be able to use key terms to describe the stages of pregnancy
- To know the effect of maternal lifestyle during pregnancy
- To be able to draw simple genetic cross diagrams

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Revision for end of topic test.

END OF TOPIC TEST

DE LA SALLE SCHOOL
ST HELENS
YEAR 7 – SCIENCE: Electricity and Magnetism
Half Term 4/5/6



By the end of this half term I will:

- Be able to draw series and parallel circuit diagrams using symbols for the components
- Understand the effect of series and parallel circuit on current
- Be able to model what is happening in a circuit
- Know which materials are magnetic and some properties of magnetism
- Be able to draw magnetic field
- Be able to explain magnetism using domain theory
- Be able to make and electromagnet and know what affects its strength
- Know some uses of magnets

Key Terms I will learn this half term:

- Magnetism
- Magnetic field
- Series
- Parallel
- Circuit
- Current
- Voltage
- Domain
- Electromagnet
- Ammeter
- Voltmeter
- Component

Learning Outcomes

Literacy Focus

Homework

Summer term weeks 1-2 – I will be able to:

- Make and draw series and parallel circuits
- Measure current and explain this in relation to what happens to the brightness of bulbs in series and parallel circuits

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Learn the symbols for common components and be able to draw simple circuit using them.

Summer term weeks 3-4 – I will be able to:

- Come up with my own model for a circuit and use it to explain what is happening in circuit
- List magnetic materials
- Draw magnetic field diagrams
- Make a simple magnet

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Design an information poster for primary school pupils to explain how a series circuit works using a model of your choice.

Summer term weeks 5-6 – I will be able to:

- Explain magnetism using domain theory
- Explain how to make and adjust the strength of an electromagnet
- Know uses of magnets and electromagnets

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

List some household uses for magnets and electromagnets.

END OF TOPIC TEST

Revision for end of topic test.

DE LA SALLE SCHOOL
ST HELENS
YEAR 7 – SCIENCE: Madagascar
Half Term 4/5/6



By the end of this half term I will:

- Be able to recognize different habitats
- Be able to describe adaptations of animals that enable them to survive in these habitats
- Be able to classify organism based on their features
- Be able to use a key
- Know what is meant by competition and what organisms need to compete for
- Be able to draw food chains and webs
- Be able to draw pyramids of number and biomass
- Know the structure of a leaf and how it helps with photosynthesis
- Be able to test a leaf for starch
- Understand transport in a plant
- Describe reproduction and seed dispersal in plants

Key Terms I will learn this half term:

- Habitat
- Ecosystem
- Adaptation
- Classification
- Key
- Competition
- Predator
- Prey
- Food chain / Food web
- Pyramid of number
- Pollination
- Seed dispersal

Learning Outcomes	Literacy Focus	Homework
Summer term weeks 1-2 – I will be able to: <ul style="list-style-type: none"> • Recognise different habitats and which species will live there based on their features. • To classify organisms based on their features. • Use a key to identify organisms. 	Spelling	Will be appropriate to the lessons and level of the pupils but an example might be: Use a key to identify unknown organisms based on their features.
Summer term weeks 3-4 – I will be able to: <ul style="list-style-type: none"> • Explain competition between organisms. • Draw food chains and webs and explain the advantages and disadvantages of each. • Draw and explain pyramids of number and biomass. • Explain bioaccumulation. 	Spelling	Will be appropriate to the lessons and level of the pupils but an example might be: Explain the effect of altering the number of individuals of a species in a food web on the other organisms in a food web.
Summer term weeks 5-6 – I will be able to: <ul style="list-style-type: none"> • Label the structure of a leaf • Explain transport in a plant • Explain reproduction and seed dispersal in plants 	Spelling	Will be appropriate to the lessons and level of the pupils but an example might be: Revision for end of topic test.
END OF TOPIC TEST		

DE LA SALLE SCHOOL
ST HELENS
YEAR 8 – SCIENCE: Dr Who
Half Term 4/5/6



By the end of this half term I will:

- Know that the periodic table is a list of the known elements and how they are arranged
- Know how to test for acid and alkalis
- Know what is produced during a reaction between metal and acid and metal and oxygen
- Know what is meant by the reactivity series and use this to explain why displacement reactions take place
- Extract metal from a metal ore
- Know what alloys are and why they have different properties from the metals they are made from

Key Terms I will learn this half term:

- Periodic table
- Metals
- Non-metals
- Groups
- Periods
- Alkali metals
- Reactivity series
- Displacement
- Oxidation
- Acids
- Alkali
- Indicator
- pH
- Alloys

Learning Outcomes

Literacy Focus

Homework

Summer term weeks 1-2 – I will be able to:

- Describe the arrangement of the periodic table
- Explain how to test a substance to see if it is an acid or an alkali

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Learn the structure of the periodic table

Summer term weeks 3-4 – I will be able to:

- Describe the reactions of the alkali metals with water and oxygen
- Explain what is produced during a reaction with metal and acid and metal and oxygen and write word equations for these reactions. (Higher level pupils may do balanced symbol equations)
- Explain the reactivity series

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Write equations for the reactions of metals with acid and oxygen.

Summer term weeks 5-6 – I will be able to:

- Use the reactivity series to explain displacement reactions
- Extract a metal from ore
- Explain why alloys are produced

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Describe why aluminium cannot be extracted using carbon.

END OF TOPIC TEST

Revision for end of topic test.

DE LA SALLE SCHOOL
ST HELENS
YEAR 8 – SCIENCE: Fossil Hunters
Half Term 4/5/6



By the end of this half term I will:

- Be able to name the three groups of rocks and give examples of each
- Group rocks based on their features
- Know how the size of crystals depends on the rate of cooling
- Describe the formation of sedimentary rocks
- Know which rocks may contain fossils and which will not
- Be able to describe the structure of the Earth
- Explain evidence that can be gathered from fossils

Key Terms I will learn this half term:

- Igneous
- Sedimentary
- Metamorphic
- Crystal
- Erosion
- Sedimentation
- Rock cycle
- Extinction
- Fossil

Learning Outcomes

Literacy Focus

Homework

Summer term weeks 1-2 – I will be able to:

- Group rocks into groups based on their features.
- Name the three groups of rocks.
- Explain the size of crystals based on the rate of cooling.

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Find some local rocks and decide which type of rock they belong to and why.

Summer term weeks 3-4 – I will be able to:

- Describe the formation of metamorphic rocks.
- Explain how erosion and sedimentation occur and how sedimentary rocks form.
- Explain how fossils are formed and the types of rock they are likely to be found in.

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Draw a timeline for the formation of a fossil.

Summer term weeks 5-6 – I will be able to:

- Explain how fossils can be used to provide evidence of evolution and past environmental conditions.
- Explain the rock cycle.

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Research a famous fossil providing information such as finder, what the fossil is of, what evidence it provides for evolution.

END OF TOPIC TEST

Revision for end of topic test.

**DE LA SALLE SCHOOL
ST HELENS
YEAR 8 – SCIENCE: Star Wars
Half Term 4/5/6**



By the end of this half term I will:

- Know the parts of the solar system and name the planets in order
- Understand about gravity and how this affects the weight of an object
- Know the difference between mass and weight
- Know what is meant by a goldilocks planet
- Be able to explain why we have day, night and seasons
- Design a space probe
- Know the life cycle of a star

Key Terms I will learn this half term:

- Solar system
- Satellite
- Mass
- Weight
- Gravity
- Goldilocks planet
- Seasons
- Axis
- Life cycle

Learning Outcomes

Literacy Focus

Homework

Summer term weeks 1-2 – I will be able to:

- To construct a diagram of the solar system with the planets in the correct order
- Explain the difference between mass and weight

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Construct a scale model of the solar system.

Summer term weeks 3-4 – I will be able to:

- Explain what is meant by a goldilocks planet.
- Explain why Earth is described as a goldilocks planet
- Explain day, night and seasons

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Complete a solotaxonomy task to explain why we have day, night and seasons.

Summer term weeks 5-6 – I will be able to:

- Explain the difficulties of exploring space
- Design a space probe
- Describe the life cycle of a star

Spelling

Will be appropriate to the lessons and level of the pupils but an example might be:

Draw a timeline for the life cycle of a star.

END OF TOPIC TEST

Revision for end of topic test.