# Science

Progression of Key

**Knowledge and** 

Concepts

# Lower KS2

#### Cycle A

#### Animals including Humans & Human Body

animals and nutrition; skeletons and muscles; function of digestive system; human teeth and functions

#### Light

-need light to see; light reflected from surfaces; dangerous to look at the sun; shadows

#### **Plants**

-functions of parts of flowering plants; varying requirements of plants for health and life; water transportation in plants; life-cylcle of flowering plants

#### Sound

-sounds made by vibrations travelling to ear; pitch; volume

#### Cycle B Forces and Magnets

-compare how things move on different surfaces; magnetism acts at a distance; attraction and repulsion, and poles; magnetic and non-magnetic materials

#### States of Matter

-solids, liquids and gases—identify and group; changing state when heated/cooled; water cycle condensation and evaporation

#### Rocks

-physical properties; fossils; soils

#### Living Things and Habitats

-living things can be grouped together; classification keys; dangers of environmental change

#### Animals including Humans

construct and interpret food chains

# EYFS

Observations of plants, animals and living

Understanding growth, decay and change over time

Why things happen and why things work Similarity, difference, patterns and change

# Upper KS2

# Cycle A

#### Living Things and Habitats

-classification and the reasons for it, life cycles

#### **Evolution and Inheritance**

-change over time and fossil evidence; offspring varying from parent; environmental adaptation and evolution

#### Forces

-gravity; air resistance, water resistance and friction; mechanisms can reduce force needed

#### Earth and Space

-movement of Earth and planets; movement of moon; spherical bodies; day and night through Earth's rotation

#### Electricity

-series circuits, designing and fixing; conductors and insulators; brightness/volume determined by voltage; circuit symbols

#### Cycle B

#### **Animals including Humans**

-circulatory system; impact of diet, exercise, drugs and alcohol; nutrition and water transportation around body; changes in developing to old age Light

-travels in straight lines from light source to eye, reflecting off objects; shadows

**Properties and Changes of Materials** 

-properties of everyday materials and their uses; dissolving; separating mixtures; reversible and irreversible changes



### Cycle A

#### Animals including Humans

-offspring that grow into adults; basic needs of animals; importance of exercise, nutrition and hygiene

### Materials

properties of everyday materials; compare and group

#### Seasonal Changes

Observe changes and weather and length of day

#### Electricity (from LKS2)

-identify common appliances

#### **Animals including Humans**

-fish, amphibians, reptiles, birds, mammals; carnivores, herbivores, omnivores; structures of animals

### Living Things and their Habitats

-living, dead and never been alive; simple food chains

# Cycle B

# Materials

-distinguish between objects and materials; everyday materials; suitability of materials for uses; changing shapes of solid objects

#### **Animals including Humans**

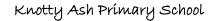
-human body parts and senses

#### **Plants**

-common plants; structure of flowering plants; seeds and bulbs; what plants need.

#### Living Things and their Habitats

-habitats suitability; plants and animals in habitats, including micro -habitats



things