

# Astrologists and Biologists Unite

## Science

### What we should already know:

- Notice that animals, including humans, have offspring which grow into adults
- That living things can be grouped in a variety of ways.
- How to use classification keys to group, identify and name a variety of living things in their local and wider environment
- That environments can change and that this can sometimes pose dangers to living things
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter

### As Scientists we will:

- Describe the movement of the Earth, and other planets, relative to the Sun in the Solar System.
- Describe the movement of the Moon relative to the Earth
- Describe the Sun, Earth and Moon as approximately spherical bodies
- Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky
- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- Describe the life process of reproduction in some plants and animals
- Describe the changes as humans develop to old age

## Vocabulary

relative, planet, moon, solar system, spherical bodies, rotation, rotate, orbit, day, night, seasons, satellite, eclipse, universe, star, constellation, axis, celestial body, lunar, solar, telescope.

mammal, amphibian, insect, bird, reproduction, life cycle, life span, egg, live young, hatchling, fledgling, metamorphosis develop, grow, change, baby, infant, toddler, child, teenager, adolescent, puberty, adult, geriatric, life cycle, life span, embryo, weaned

## WOW!

We will visit The National Space Centre to further our knowledge of space and how scientists have learned more about it than the bottom of our oceans!

We will be **World Wise** by understanding how day and night affects the world we live in.

# Astrologists and Biologists Unite

We will be Creative by designing and making our own rotating solar system.

## Design Technology

### *What we should already know:*

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
- Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria
- Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

### *As Design Technologists we will:*

- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages
- Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors.]

## Vocabulary

Functional, usability, dimension, innovate, manufacture, modification, process, product, quality, specification, consumer, exploded drawing, malleable, friction, force, resistance, evaluate, illustrate, critical, analyse, series circuit

# Astrologists and Biologists Unite

## Computing

### What we should already know:

- Start commands in different ways.
- Animate a sprite by using change costume and repeat functions.
- Use conditional statements within the program to control the sprite (e.g. if... then..)
- Detect and correct errors in algorithms as necessary.
- Trim and arrange clips to convey meaning.
- Add titles, credits, slide transitions and special effects.

### As Computer Technologists we will:

- Create and edit variables.
- Use a wider range of conditional statements to control the sprite.
- Design a simple game including sprites, backgrounds, scoring and/or timers.
- Detect and correct errors in algorithms as necessary.
- Plan what they would like to happen in their animation.
- Take a series of pictures to form an animation.
- Move items within their animation to create movement on playback.
- Edit and improve their animation.

## Vocabulary

scoring, timers, animation, series of pictures, playback, scenes

We will be World  
Wise by  
recognising how  
the skills we learn  
in Scratch can  
transfer to many  
jobs.