

# **Belmont Cheveley Park Primary School**



**Science  
Passport**



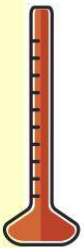
# Year 1 Science Passport



## Autumn 1: Everyday Materials



- What are these objects made from?
- Can you describe the properties of these objects?
- Can you sort these objects by their materials?
- How are these objects the same/different?
- How can you test if a material is waterproof?
- Can you show me and explain a pictogram you have made?



## Autumn 2: Light & Dark

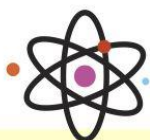
- Can you name some sources of light?
- Why is the sun important?
- How do you stay safe when looking at the sun?
- How are shadows made?



## Spring 1: Animals Including Humans: Humans



- Can you name the parts of the body and find them?
- What are the five senses?
- What body parts do we use for each sense?



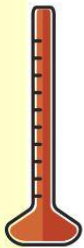


# Year 1 Science Passport



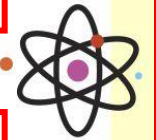
## Spring 2: Animals Including Humans: Animals

- Can you name some animals that can/can't be kept as pets?
- Can you match an animal to its home/habitat?
- What is a carnivore, herbivore and omnivore?
- How are these animals the same/different?



## Summer 1: Plants: Naming Parts & Identification

- Can you name some common wild plants?
- Can you name some common garden plants?
- Can you label the parts of a plant? (roots, stem, leaves, petal)
- What does a plant need to grow?



## Summer 2: Plants: Life Cycles & Seasons

- What happens in the lifecycle of a sunflower?
- What is the difference between deciduous and evergreen trees?
- Can you name the four seasons?
- What happens in each season?
- What kind of weather do you get in each season?
- How do you stay safe in the sun?





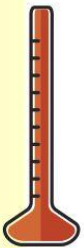
# Year 2 Science Passport



## Autumn 1: Uses Of Everyday Materials: Manipulating Materials



- What materials can you name?
- What are the different materials used for and why?
- How can you change a material?
- Can you squash, bend, twist and stretch all materials?



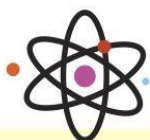
## Autumn 2: Living Things & Their Habitats: Living Things

- How do you know how something is alive, dead or never been alive?
- What are the life processes that are common to all living things?
- What is a simple food chain and can you give me an example?
- What is a habitat and why are there so many?
- What is a microhabitat?
- How is a microhabitat different to a habitat?
- Can you tell me about a suitable habitat for an animal of your choice?



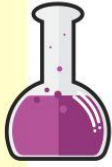
## Spring 1: Animals Including Humans: Survival & Change

- How do animals including humans change as they grow older?
- What is a life cycle?
- What are the basic needs of animals including humans to help them to survive?



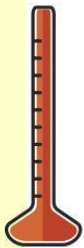


# Year 2 Science Passport



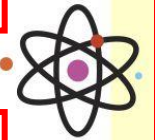
## Spring 2: Animals Including Humans: Being Healthy

- Why is it important for humans to exercise?
- What different types of foods are there?
- What different types of foods should humans eat to stay healthy?
- Can you show me and explain a bar chart you have made?
- What does hygiene mean?
- What do humans do to be hygienic?



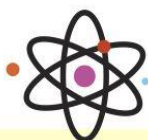
## Summer 1: Plants: Seeds & Bulbs

- What is the difference between a seed and a bulb?
- Can you describe how a seed or bulb grows into a healthy plant?
- What do plants need to grow and to stay healthy?



## Summer 2: Scientific Enquiry & Investigations

- Can you tell me the equipment you have used to observe something closely?
- Can you tell me about and explain a simple test you have done?
- Can you tell me about some observations you made from one of your tests/investigations?
- Can you show me and explain how you have recorded some data that you have collected e.g. in a vertical bar graph?



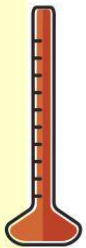


# Year 3 Science Passport



## Autumn 1: Forces & Magnets

- What is a force?
- How many poles do magnets have and what are they called?
- What do like poles do & what do opposite poles do on magnets?
- What materials do magnets attract?
- What is friction?
- Can you show me and explain the friction investigation and the graph you made?



## Autumn 2: Rocks

- Can you name the main rock groups?
- Can you name some natural and man-made rocks?
- What is a fossil?
- Can you tell me about how different rocks look?
- Can you describe the properties of some of the rocks?



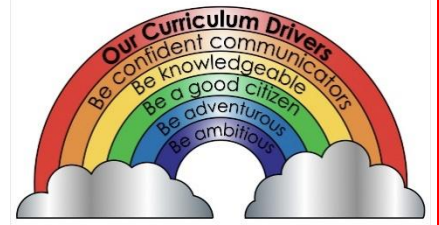
## Spring 1: Light & Shadows

- How do you change the shape and size of a shadow?
- How and why does an opaque object make a shadow?
- Why is light important to us?
- Can you explain what 'dark' is?
- Can you show me and explain a results table and graph you have made?



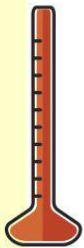


# Year 3 Science Passport



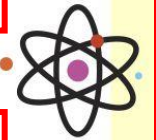
## Spring 2: Animals Including Humans: Skeletons & Diet

- What is the function of a skeleton?
- What is the function of muscles?
- Can you name some bones in the skeleton?
- What is a vertebrate and an invertebrate and can you name some?
- Can you explain things that humans should eat for nutrition?
- Can you explain the diet of different animals?



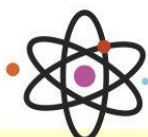
## Summer 1: Plants: Functions & Survival

- What are names and functions of all parts of a plant?
- Do all plants need the same basic things to survive?
- How is water transported in a plant?
- Can you show me and explain a graph that you have made?



## Summer 2: Plants: Seed Dispersal & Germination

- What is seed dispersal?
- Can you describe the different ways seed dispersal happens?
- What are the stages of germination?
- How is pollen transported?
- What are the reproductive parts of a flower called?

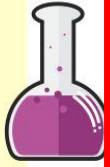




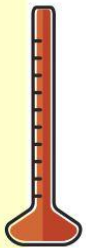
# Year 4 Science Passport



## Autumn 1: Electricity: Simple Circuits



- What equipment do you need to make a complete circuit?
- Can you name some conductors and insulators of electricity?
- How can you make a lightbulb brighter?
- What are the scientific names for a lightbulb and a battery?
- What does a switch do in a circuit?
- Can you name some common appliances that use electricity?



## Autumn 2: States Of Matter

- What are the three states of matter?
- What is evaporation?
- What is condensation?
- Where do we see evaporation and condensation in the water cycle?
- How can you change from one state to another?



## Spring 1: Living Things & Their Habitats: Classification

- What are the categories we can place animals in?
- How can we categorise plants?
- What is a classification key and how do you use one?



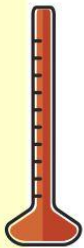


# Year 4 Science Passport



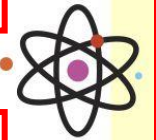
## Spring 2: Animals Including Humans: Digestion

- Which major organs are involved in the digestive system?
- What are the different types of teeth called and what are they used for?
- What is a food chain?
- What is a producer, predator and prey?



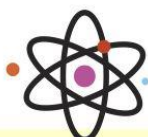
## Summer 1: Sound

- How are sounds made?
- How do we hear sounds?
- How can we change the pitch of a sound?
- Why does sound travel better through some materials than others?
- How does distance affect sound?
- How does the strength of vibration affect the volume of sound?



## Summer 2: Living Things & Their Habitats: Environment

- How do humans negatively impact the environment?
- How have humans changed the environment in a positive way?
- How do habitats change throughout the year?
- What animals and plants are there in our local habitat?





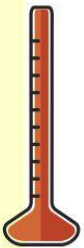
# Year 5 Science Passport



## Autumn 1: Forces: Measuring Forces



- How do you show the direction of a force in a diagram?
- What is gravity?
- Who was Isaac Newton and what did he discover?
- Can you name some simple machine that help us move things?
- Can you explain what water resistance and air resistance are?



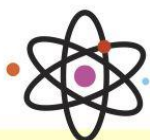
## Autumn 2: Earth & Space

- Can you explain why we have day and night?
- How long does it take the Earth to orbit the sun?
- Can you name the planets in the correct order from the sun?
- Can you explain how the moon moves?
- How do the planets move around the solar system?



## Spring 1: Materials & Their Properties 1

- Which properties can be used to group or describe materials?
- Can you name some materials that will/will not dissolve in water and how could you separate them?
- What is a solution?
- Can you describe a change which is irreversible?



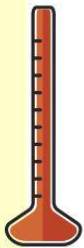


# Year 5 Science Passport



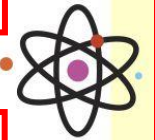
## Spring 2: Materials & Their Properties 2

- How could you separate a mixture of water, salt and sand?
- What happens when you mix vinegar and bicarbonate of soda together?
- Who was Spencer Silver?
- What did Spencer Silver invent?



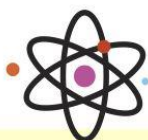
## Summer 1: Animals Including Humans: Puberty & Development

- Can you name the 8 different stages of human development?
- Can you explain the changes to the human body in puberty?
- What does the term 'gestation' mean?
- What does adolescence mean?
- Can you show me and explain a data table and graph you have made?



## Summer 2: Living Things & Their Habitats: Comparing Lifecycles

- Who is David Attenborough and why is he important?
- Can you compare the life cycle of a mammal to a bird?
- How can you describe the life cycle of an amphibian?
- How do amphibians and insects reproduce?
- How do flowering plants reproduce?



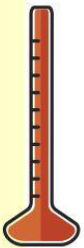


# Year 6 Science Passport



## Autumn 1: Evolution & Inheritance

- Can you explain what a fossil is and what information it provides from the past?
- What do the terms 'inheritance' and 'evolution' mean?
- How has the camel and the arctic poppy adapted to suit their environments?
- How do certain species change/evolve over time in order to survive?
- Can you tell me about a prediction you have made?



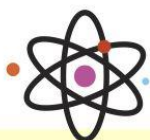
## Autumn 2: Animals Including Humans: Diet, Exercise, Drugs & Lifestyle

- Which parts of the body are affected by drugs, smoking and alcohol?
- How does scientific evidence change ideas about smoking etc?
- What contributes to a healthy lifestyle?
- What are the benefits of a healthy diet and exercise on the human body?
- Can you tell me about a fair test and how to carry one out?



## Spring 1: Electricity: Circuit Diagrams

- Can you make a simple circuit using a bulb, cell, wires, motor, switch and buzzer?
- Can you test different parts in a circuit to affect the flow of electricity?
- Do you know the correct electrical symbols for a bulb, cell, battery, motor, buzzer, switch and wires?
- Can you draw an accurate circuit diagram using the correct symbols?
- Can you tell me about how you carried out an investigation?



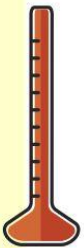


# Year 6 Science Passport



## Spring 2: Light: Refraction & Travelling

- Can you explain how a shadow is formed and how it can have the same shape as the object that casts it?
- How does light travel?
- How can we see objects in terms of light?
- What is refraction?
- What is the colour spectrum?
- Can you show me and explain a result table that you made?



## Summer 1: Living Things & Their Habitats: Classification Systems

- What is a micro-organism?
- What are helpful and harmful micro-organisms?
- Can you name the five kingdoms of the Linnaeus system?
- What is a classification key and can you create one?
- Can you show me a graph of your choice and explain why you presented it this way?



## Summer 2: Animals Including Humans: The Circulatory System

- Can you name the key parts of the heart?
- Can you name the key parts of the circulatory system?
- How does the circulatory system work?
- What are the main parts of the blood and what are their jobs?
- How does the body transport water and nutrients?
- Can you show me and explain how to draw conclusions from a results table?

