

## Subject Curriculum Vision:

### The Science Curriculum at AJK

#### INTENT

At AJK, we aim to provide pupils with scientific knowledge and concepts that will provide a firm foundation as they continue their studies after KS2. Our backwards-planned curriculum carefully develops scientific skills, gradually inducting pupils into the scientific method. We believe strongly in the power of carefully sequenced practical work to embed and deepen understanding, as well as to inspire a new generation of children to consider STEM careers in the future.

Schemes of work identify high-leverage knowledge that is important for pupils' further scientific study. The science curriculum is structured spirally, with topics revisited over time at greater depth. Regular low-stakes quizzing and revisiting of key content in future units aims to embed this knowledge into long-term memory, so that pupils can draw upon it fluently when engaging with this disciplinary aspect of the subject.

To deepen pupils' understanding of the ways in which scientific knowledge is constructed, setting them up for study in KS3 and beyond, our curriculum is designed to provide pupils with extensive experience of working scientifically in the following ways:

- ❖ Asking questions
- ❖ Observing closely
- ❖ Planning and performing simple tests
- ❖ Identifying and classifying
- ❖ Making predictions based on knowledge and experience
- ❖ Gathering and recording data
- ❖ Drawing conclusions from data
- ❖ Presenting findings

#### IMPLEMENTATION

Pupils in Years 1-6 study science for one hour a week. They study five topics per year, covering a mixture of biology, chemistry and physics. Units provide pupils with opportunities to work scientifically, including by carrying out experiments and drawing conclusions from their data.

#### IMPACT

Teachers assess pupils' understanding during lessons. Each lesson begins with a mini quiz, designed to revisit key knowledge from previous lessons, units and year groups. These quizzes provide further formative opportunities to assess learning over time.



## UNIT OVERVIEW

	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
<b>Year 1</b>	Amazing Animals	Autumn and Winter	Everyday Materials		Spring and Summer	Plants
<b>Year 2</b>	Animals: Needs for Survival	Uses of Materials	Habitats		Protecting our Environment	Plants: Bulbs and Growth
<b>Year 3</b>	Skeletons and Muscles	Rocks and Fossils	Light and Shadows		Plants: Needs for Survival	Forces and Magnets
<b>Year 4</b>	Teeth and Digestion	States of Matter	Classification and Environments		Sound	Electricity
<b>Year 5</b>	Earth and Space	Forces	Materials: Properties and Changes		Life Cycles	Growing Old
<b>Year 6</b>	Light and Perception	Classification	Evolution and Inheritance		Electricity	Circulation and Lifestyle