

Owls

Autumn term projects

Driver project	 Dynamic Dynasties History	
Science	 Forces and Mechanisms	 Earth and Space
Art and design	 Tints, Tones and Shades	 Taotie
Design and technology	 Moving Mechanisms	
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Dynamic Dynasties

In Dynamic Dynasties, your child will learn about periods of ancient Chinese history. They will explore a timeline of the first five Chinese dynasties and learn about the legends surrounding the beginning of Chinese civilisation. They will take a deep dive into the history of the Bronze Age Shang Dynasty and explore evidence found in the ancient city of Yin. They will study oracle bones, learn about religious beliefs and explore bronze artefacts that set the Shang Dynasty apart from other civilisations. They will also study the hierarchy of the Shang Dynasty and discover who was powerful and who was powerless. They will look at warfare and find out how bronze technology gave the Shang Dynasty an advantage over their enemies. They will learn about the life of the great military leader, Fu Hao. The children will then look at significant aspects of life after the Shang Dynasty, including the work of Confucius in the Zhou Dynasty, the short but significant reign of Emperor Qin Shi Huang of the Qin Dynasty and the importance of the Silk Road created by the Han Dynasty. To end the project, your child will find out how ancient China's lasting legacy can be seen in the world today.



Forces and Mechanisms

In the Forces and Mechanisms project, your child will revisit prior learning about forces, identifying what a force is and discussing the two types, including contact and non-contact forces. They will learn that gravity is a force of attraction and follow instructions to observe gravity in action. They will learn the meanings of the terms 'mass' and 'weight' and their units of measurement, following instructions to record the mass and weight of various everyday objects using a piece of equipment called a force meter. They will revisit learning about friction, discussing situations where it can be helpful or where we need to minimise its effects. They will learn about the frictional forces called air and water resistance in detail and conduct investigations to observe these frictional forces in action. They will learn about mechanisms, including gears, pulleys and levers and follow instructions to investigate how these simple machines use forces to make tasks easier. They will generate scientific questions they wish to study further on the theme of forces and mechanisms and research to find the answers. They will complete their learning by examining the forces involved in riding a bicycle and the parts that are gears, pulleys and levers.



Earth and Space

In the Earth and Space project, your child will learn the names of the planets in the Solar System before creating a model outdoors to describe its scale, movement and features. They will learn how scientists throughout history used different methods to study the Solar System and came to understand how the planets orbited the Sun. They will make a model and use it to explain the orbits of the Moon around the Earth and the Earth around the Sun. They will identify the spherical shape of the Sun, Earth and Moon. They will learn how people in ancient civilisations believed the Earth was flat and how evidence proved the Earth was a sphere. They will know that the Earth's rotation creates a range of phenomena, including day and night and the appearance of the Sun rising above the horizon in the east at sunrise, moving across the sky and then setting below the horizon in the west at sunset, and use equipment to model these phenomena. They will make and use sundials to learn how people in the past used the Earth's rotation, the angle of the sunlight, and the length and direction of shadows to tell the time. They will learn that the Earth's tilt and rotation as it orbits the Sun creates different seasons and day lengths in the Northern and Southern Hemispheres and the effect of similar amounts of direct sunlight all year round in the tropics. They will research the times of day on the Earth in different locations and describe how Earth's rotation creates this phenomenon. They will learn about the Moon's orbit and name and explain the eight phases of the Moon. They will research how solar and lunar eclipses occur and create labelled diagrams to show their findings. Children will complete their learning by conducting an in-depth study of either Mercury, Venus, Mars, Jupiter, Saturn, Uranus or Neptune and compare the planet's scale, features and movement to that of the Earth.



Tints, Tones and Shades

This project teaches children about colour theory by studying the colour wheel and exploring mixing tints, shades and tones. They learn about significant landscape artworks and features of landscapes



Taotie

This project teaches children about the significance and art of the taotie motif, including ancient and contemporary casting methods.



Moving Mechanisms

This project teaches children about pneumatic systems. They experiment with pneumatics before designing, making and evaluating a pneumatic machine that performs a useful function.



Investigating Our World

During the Investigating Our World project, your child will study Ordnance Survey maps to write a description of the local area. They will learn about contour lines and revise six-figure grid references to locate features on maps. Your child will learn about the Prime, or Greenwich, Meridian and find out that Greenwich Mean Time, or GMT, is taken from the Prime Meridian. They will know that the Earth is split into 24 time zones and calculate the time in places worldwide. Your child will learn about climate zones, vegetation belts and biomes. They will find out that the climate and vegetation in an area determine the animals that live there. Your child will learn about the human geography of the continents and locate capital cities around the world. They will identify relative locations and use the scale bars on maps to find the distance between places. They will study the motorway network across the United Kingdom, learning how they connect towns, cities and transport links across the country. Your child will explore a settlement hierarchy diagram and learn about the relative size, significance and populations of settlements. At the end of the project, they will carry out a fieldwork enquiry to discover which settlement types are in their local area.