

ARK TINDAL PRIMARY ACADEMY CURRICULUM OVERVIEW 2017-18

Year Group		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y1	Topic	<p>Who was here before us? <i>Changes within living memory.</i> -toy changes over time. -travel and transport changes over time.</p>	<p>All aboard! <i>use simple compass directions (North, South, East and West) and locational and directional language [for example, near and far; left and right], to describe the location of features and routes on a map</i></p> <p><i>use basic geographical vocabulary to refer to: key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather</i> -Under the sea Planning journeys</p>	<p>Where do we live? <i>Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features. Use simple field work and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment.</i> -changes over time in local area. -Changes to the bullring and developments made. -landmarks</p>	<p>Kings and Queens <i>The lives of significant individuals in the past who have contributed to national and international achievements.</i> -British Monarchy -Queen and how life has changed over her Reign. Go backwards through great Kings and Queens from Queen Elizabeth II. -See Core Knowledge book.</p>	<p>Beautiful Britain! <i>Name, locate and identify characteristics of the four countries and capital cities of the UK and its surrounding areas.</i> -weather patterns -create a weather forecast. -green screen</p>	<p>In the wild... <i>Identify seasonal and daily weather patterns in locations of hot and cold areas of the world in relation to the equator.</i> -rainforests -weather and seasonal changes in different parts of the world. -equator -locations of the places in the world</p>
	Science	<p>Animals including humans <i>Identify and name a variety of common animals including, fish amphibians, reptiles, birds and mammals.</i> -comparing -fish in different water -describe the animals -where they live</p>	<p>Animals including humans <i>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</i> -diet -teeth -vocabulary -humans</p>	<p>Plants <i>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees.</i> -matching adjectives to the different plant. - classifying into groups -basic classification keys.</p>		<p>Materials <i>Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday material on the basis of their simple physical properties. Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.</i></p> <p>-Categorising based on properties -hard, soft, smooth, rough, shiny. -comparing reflection properties: can you see your reflection in it?</p>	<p>Seasons <i>Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.</i> -position of the Earth. -weather chart-daily -different weather in different seasons. - day length chart-manipulating data into a graph.</p>

						<ul style="list-style-type: none"> -objects such as, pencil, chair, plate. -categorising materials (venn diagram with hoops and real objects). -feel materials, describe them. 	
STEM	https://www.stem.org.uk/primary-science https://www.stem.org.uk/primary-maths Toys – How will your roly poly move? https://www.stem.org.uk/elibrary/resource/25942 Mechanism		What can you learn from a textile tree? Link to materials https://www.stem.org.uk/system/files/elibrary-resources/legacy_files_migrated/2357-tree_color-1806.pdf Textiles		Design a waterproof jacket? Materials		
Art			Based on Bullring – materials / textures				
Trips	Archaeology visits from UoB	Visits to UoB & The Bull Ring.	Wales & BBC weather studios.			The Airport	Botanical Gardens.
Career links	Archaeologist	Zookeeper http://stem-works.com/subjects/30-the-animal-kingdom/cool_jobs/91 Architect	Jobs at the airport - pilot		Meteorologist	Botanist	

Year Group		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y2	Topic	<p>Where do our things come from? <i>Use world maps, atlases and globes to identify countries, continents and oceans.</i> -comparing and contrasting different parts of the world. -Fair trade -Looking at markets and shops. -discussing farms and clothing.</p>	<p>Come with us to the ends of the Earth... <i>Identify seasonal and daily weather patterns in the UK and the location of hot and cold areas in the world in relation to the Equator and the North and South poles.</i> -Polar regions -Antarctica -global warming, weather patterns, endangered species. -Inuits, animals, landscape -Interview explorers.</p>	<p>Decisions Decisions! <i>Understand geographical similarities and differences through studying the human and physical geography of a small area of the UK and a small area in a contrasting non-European country.</i> -Compare the Lickey Hills and Austrailia. -Animals -Book: where the forest meets the sea.</p>	<p>Fire! Fire! <i>Events beyond living memory that is significant nationally or globally.</i> -Great Fire of London. -Samuel Pepys & William Shakespeare. -The Black Plague -Firefighters</p>	<p>Life beyond our land. <i>The lives of significant individuals in the past who have contributed to national and international achievements.</i> -Inventors -Christopher Colombus -Elizabeth I -Merchant Family -Explorers -Working abroad</p>	<p>Come with us to space. <i>The lives of significant individuals in the past who have contributed to national and international achievements.</i> -The first launch into space. -Neil Armstrong -Compare Elizabeth I with Elizabeth II -Tim Peak -Careers in Astro--Physics -Solar system</p> <p>https://www.stem.org.uk/esero</p>
	Science	<p>Materials <i>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</i> -Could you use a ____ to make a ____? Why would some materials not work and why do others work?</p>	<p>Materials <i>Identify and compare the suitability of a variety of everyday materials for keeping warm.</i> --use thermometers - Clothing-what keeps you warm? What cools you down? -clothing colours <i>Find out how the shapes of solid objects made from some materials can be changed by squashing,</i></p>	<p>Living things and their habitats. <i>Explore and compare the differences between things that are living, dead and things that have never been alive. Identify that most living things live in habitats to which they are suited and describe how different habitats provide for their basic needs and how they depend of each other. Identify and name variety of plants and animals in their habitats, including micro habitats. Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain.</i> -What does it mean to be alive? MRS NERG. -habitats and how they provide the things you need to keep you alive. --Compare animals that live in familiar habitats and less familiar habitats. -microhabitats: tree in a forest.</p>	<p>Animals, including humans. <i>Notice that animals, including humans, have offspring which grow into adults. Find out about and describe the basic needs of animals including humans for survival. (water, food and air). Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.</i> -discussing the inputs for MRS NERG, e.g. air is needed for respiration. -eat well plate -keeping clean, brushing teeth.</p>	<p>Plants <i>Observe and describe how seeds and bulbs grown into mature plants. Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</i> -Plant seeds and discuss what they need to survive. -Keep some in dark/light -Give some water/some not.</p>	

		<i>bending, twisting and stretching.</i> -identifying what happens to different objects and recording observations. –pipe cleaner, play dough, beanbag.				
STEM	Which fruits would be good in your salad? https://www.stem.org.uk/elibrary/resource/25793 Food		Hats https://www.stem.org.uk/elibrary/resource/25942 Get ready for science – open space https://www.stem.org.uk/elibrary/resource/29287 Materials		Get ready for science – outer space https://www.stem.org.uk/elibrary/resource/29287 Textiles? Cushion cover? https://www.stem.org.uk/elibrary/resource/25921	
Trips	Visit to markets / shops/ farms/ clothes	Safari park to see the penguins.	Visit the nature centre.	Stratford Upon Avon.	Blakesly Hall.	Leicester Space Centre/ Think Tank
Career links	Taste scientist https://www.stem.org.uk/elibrary/resource/29287	Explorer	Forest ranger Jobs in tourism?	Firefighter	Navy Jobs working abroad	Astrophysicist Astronomer http://stem-works.com/cool_jobs

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Y3	Topic	Time travellers! <i>Changes in Britain from the Stone age to the Iron age.</i> -See Core Knowledge book	If I ruled the world... <i>The Roman Empire and its impact on Britain.</i> -Roman Invasion 55-54BC -Boudicca -Hadrian's Wall	Marvellous mummies. <i>The achievements of the earliest civilisations.</i> -Ancient Egypt -Pharaoh Tutankhamun -pyramids	Trade Links. <i>Describe and understand key aspects of types of settlement and land use, economic activity including trade links and the distribution of natural resources including energy, food, minerals and water.</i> -UK exports and imports -settlement and land changes over the times.	Around the world. <i>Locate the world's countries, using maps to focus on Europe and North and South America, concentrating on their environmental regions, key physical and human characteristics countries and major cities.</i> -use maps/atlasses -compare and contrast different characteristics of different parts of the world.	Disaster Strikes. <i>Describe and understand key aspects of climate zones, biomes and vegetation belts. Describe and understand key aspects of volcanoes and earthquakes.</i> -Recent disasters -Causes and impact -newspaper reports
	Science	Rocks <i>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. Describe in simple terms how fossils are formed when things that have lived are trapped within rock. Recognise that solid are made from rocks and organic matter.</i> - look at what rocks are used for. -changes in rocks over time. Weathered, smooth, rough. -grouping them together. -rocks in local environment. -microscopes, magnifying glass- crystal vs grains. -Manmade vs natural -fossils and rubbing rocks.	Forces and Magnets <i>Compare how things move on different surfaces. Notice that some forces need contact between two objects, but magnetic forces can act at a distance. Observe how magnets attract and repel each other and attract some materials but not others.</i> -what is magnetic. -Go around school with magnets. -Grouping magnetic things. -Raise questions about how magnetic certain things are. https://www.stem.org.uk/elibrary/list/12391/year-3-forces-and-magnets <i>Compare and group together a variety of everyday materials on the basis of whether they are attracted to magnet, and identify some magnetic materials. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing.</i> -The poles -theories behind magnets -strength of different magnets. -identify how magnets are useful in everyday items.	Animals, including humans. <i>Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. Identified that humans and some other animals have skeletons and muscles for support, protection and movement.</i> -body parts, skeleton, muscles and discuss how they work. -xrays -compare the insides of different animals. -diets of different animals. Why do we need certain foods and what nutrition do they give, which parts of the body do they help.		Plants <i>Identify and describe the functions of different parts of flowing plants, roots, stem, leaves, flowers. The requirements of plants for life and growth and that varies between plants. Investigate how water is transported within plants. Explore the part that flowers play in the lifecycle of plants (pollination).</i> -identify parts of plants and understand what jobs they do. -coloured water in a flower and watch the flower change colour experiment.	Light <i>Recognise that they need light to see things and that dark is the absence of light. Notice that light is reflected from surfaces. Recognise that light from the sun in dangerous and how they can protect their eyes. Recognise that shadows are formed when light is blocked by an opaque object. Find patterns in the way that the size of shadows changes.</i> -what is light? -Shadow experiments/shadow puppets -mirror experiments for reflection
	STEM	Direct water flow to plants https://www.stem.org.uk/elibrary/resource/35617		New product development – food based (adapt to KS2) https://www.stem.org.uk/elibrary/resource/29286		Build a glider? https://www.stem.org.uk/elibrary/resource/35626	

		Engineering		Food		Materials	
				Get ready for science – build a pyramid		Transportation? https://www.stem.org.uk/elibrary/resource/34395	
	Trips	Stone age visitor	Lunt Fort	Birmingham Museum		Think tank	
	Career links	Geologist		Lighting / theatre technician	Nutritionist Radiographer		Tornado chaser! http://stem-works.com/cool_jobs Seismologist

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Y4	Topic	<p>Struggle for the Kingdom! (Until 1066) Britain's settlement by Anglo-Saxons and Scots</p> <p><i>Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire.</i></p> <p><i>Scots invasions from Ireland to north Britain (now Scotland).</i></p> <p><i>Anglo-Saxon invasions, settlements and kingdoms: place names and village life.</i></p> <p><i>Christian conversion – Canterbury, Iona and Lindisfarne.</i></p>	<p>Struggle for the Kingdom! Anglo & Viking struggle Types of settlements</p> <p><i>Viking raids and invasion</i></p> <p><i>Anglo Saxon art and culture.</i></p> <p><i>Resistance by Alfred the Great and Athelstan, first king of England</i></p> <p><i>Further Viking invasions and Danegeld</i></p> <p><i>Anglo-Saxon laws and justice.</i></p> <p><i>Edward the confessor and his death in 1066.</i></p>	<p>Water: friend or foe? Rivers & mountains</p> <p><i>Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.</i></p> <p><i>Identify the position and significance or latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day & night).</i></p>	<p>Water: friend or foe? The water cycle (geography objective only)</p> <p><i>Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.</i></p>	<p>Life as a Brummie! A local history study Location knowledge</p> <p><i>Local history study</i></p> <p><i>Name & locate countries and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time.</i></p> <p><i>Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water.</i></p>		
	Science	<p>Living things & habitats</p> <p><i>Recognise that living things can be grouped in a variety of ways.</i></p> <p><i>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</i></p> <p><i>Recognise that environments can change and that this can sometimes pose dangers to living things.</i></p>	<p>Electricity</p> <p><i>Identify common appliances that run on electricity.</i></p> <p><i>Construct a simple series circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</i></p> <p><i>Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.</i></p> <p><i>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</i></p> <p><i>Recognise some common conductors and insulators,</i></p>	<p>States of matter</p> <p><i>Compare and group materials together, according to whether they are solids, liquids or gases.</i></p> <p><i>Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).</i></p> <p><i>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</i></p>	<p>Sound</p> <p><i>Identify how sounds are made, associating some of them with something vibrating.</i></p> <p><i>Recognise that vibrations from sounds travel through a medium to the ear.</i></p> <p><i>Find patterns between the pitch of a sound and features of the object that produced it.</i></p> <p><i>Find patterns between the volume of a sound and the strength and the</i></p>	<p>. Animals including humans <i>Describe the simple functions of the basic parts of the digestive system in humans.</i></p> <p><i>Identify the different types of teeth in humans and their simple functions.</i></p>	<p>. Animals including humans <i>Construct and interpret a variety of food chains, identifying producers, predators and prey.</i></p>	

			<i>and associate metals being good conductors</i>		<i>vibrations that produced it.</i> <i>Recognise that sounds get fainter as the distance from the sound source increases</i>		
	Trips	Staffordshire Saxon Hoard		http://stem-works.com/cool_jobs	Severn trent reservoir https://www.stwater.co.uk/leisure-and-learning/workshops-and-visits/site-tours/hayden/	Local visit linked to topic	
	STEM	Mechanism?		Floating and sinking – designing a floating island https://www.stem.org.uk/elibrary/resource/35621 Materials	Designing a sound generator https://www.stem.org.uk/elibrary/resource/35624 Engineering		
	Career links	Wildlife biologist http://stem-works.com/cool_jobs	Snake scientist http://stem-works.com/cool_jobs Working in a museum	World of work – jobs within Severn Trent	Job opportunities linked to Birmingham – BBC...		

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Y5	Topic	<p>. Groovy Greeks! Ancient Greece Mythology Mount Olympus The Greeks at War Professor McGinty</p> <p><i>Ancient Greece – a study of Greek life and achievements and their influence on the western world.</i></p>	<p>Groovy Greeks! Ancient Greece Mythology Mount Olympus The Greeks at War Professor McGinty <i>Ancient Greece – a study of Greek life and achievements and their influence on the western world.</i></p>	<p>Bustling Baghdad Example of an early Islamic civilization</p> <p><i>A non-European society that provides contrasts with British history: early Islamic civilisation, including a study of Baghdad</i></p> <p>Early Islam (spring 1) and modern Islam (spring 2)</p>		<p>I have a dream! Rosa Parkes Martin Luther King Civil Rights Act Malala Yousafzai – discrimination today. Edith Cavell Visit to Council House</p>	<p>Around the world: Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.</p> <p>Similarities & differences.</p>
	Science	<p>Forces <i>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</i></p> <p><i>Identify the effectiveness of air resistance, water resistance and friction, that act between moving surfaces.</i></p> <p><i>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</i></p>	<p>Earth & Space Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</p> <p>Describe the movement of the Moon relative to the Earth.</p> <p>Describe the Sun, Earth and Moon as approximately spherical bodies.</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p> <p>https://www.stem.org.uk/ese-ro</p>	<p>Living things & their habitats <i>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</i></p> <p><i>Describe the life process of reproduction in some plants and animals</i></p>		<p>. Properties & changes of materials <i>Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.</i></p> <p><i>Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.</i></p> <p><i>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</i></p> <p><i>Demonstrate that dissolving, mixing and changes of state are reversible changes.</i></p> <p><i>Explain that some changes result in the formation of new materials and that this kind of change is not usually reversible, including changes associated with burning</i></p>	<p>Animals including humans <i>Describe the changes as humans develop to old age.</i></p>

					and the action of acid on bicarbonate of soda.	
STEM	Building a hanging structure https://www.stem.org.uk/resources/search?resource_query=primary%20design%20and%20technology&f[0]=field_age_range%3A75&f[1]=field_type%3A110&f[2]=field_publication_year%3A38 Mechanisms		Designing and constructing a water pond (link to materials and geography) https://www.stem.org.uk/elibrary/resource/35623 Materials			Food?
Art	Greek masks?					
Trips						
Career links	Mechanical engineer Astronomer					

Year Group		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y6	Topic	<p>WW2</p> <p><i>A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066: a significant turning point in British history; events beyond living memory that are significant nationally or globally; the lives of significant individuals in the past who have contributed to national and international achievements</i></p> <p>WW2</p>		Refugees	Amazing America	<p>City of a Thousand Trades!</p> <p>Victorians, Industrial Revolution, Famous Victorians</p> <p><i>A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066.</i></p>	<p>Orienteering</p> <p>Grid references, symbols and key (including the use of Ordnance Survey maps)</p> <p><i>Use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey Maps) to build their knowledge of the United Kingdom and the wider world.</i></p> <p><i>Identify the position and significance or latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day & night).</i></p>
	Science	<p>Light & Electricity</p> <p><i>Recognise that light appears to travel in straight lines.</i></p> <p><i>Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.</i></p> <p><i>Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.</i></p> <p><i>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</i></p> <p><i>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in a circuit.</i></p> <p><i>Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.</i></p>		<p>Animals including humans</p> <p>Evolution & Inheritance (Darwin)</p> <p><i>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</i></p> <p><i>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</i></p> <p><i>Describe the ways in which nutrients and water are transported within animals, including humans.</i></p>	<p>Animals including humans</p> <p>Evolution & Inheritance (Darwin)</p> <p><i>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</i></p> <p><i>Recognise that living things produce offspring of the same kind but normally offspring vary and are not identical to their parents.</i></p> <p><i>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</i></p>	<p>Fieldwork</p> <p><i>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</i></p> <p><i>Using test results to make predictions to set up further comparative and fair tests.</i></p> <p><i>Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</i></p>	<p>Fieldwork</p> <p><i>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</i></p> <p><i>Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate.</i></p>

		Use recognised symbols when representing a simple circuit in a diagram.				
	STEM	Designing a simple sampler https://www.stem.org.uk/elibrary/resource/25921 Textiles			Design a machine to suck up litter (electricity) https://www.stem.org.uk/elibrary/resource/35619 Mechanism	
	Art	Banksy – graffiti, art or a crime?				
	Trips	Blisthill				
	Career links					