

FIRST® LEGO® League Jr. Discovery – curriculum link grid

Early Years Foundation Stage		
Prime areas:		
Communication and language Giving children opportunities to experience a rich language environment; to develop their confidence and skills in expressing themselves; and to speak and listen in a range of situations.	Listening and attention	<ul style="list-style-type: none"> – Children listen attentively in a range of situations. – They give their attention to what others say and respond appropriately.
	Understanding	<ul style="list-style-type: none"> – Children follow instructions involving several ideas or actions. – They answer 'how' and 'why' questions about their experiences and in response to stories or events.
	Speaking	<ul style="list-style-type: none"> – Children express themselves effectively. – They develop their own narratives and explanations by connecting ideas or events.
Physical development Providing opportunities for young children to develop their co-ordination, control, and movement.	Moving and handling	<ul style="list-style-type: none"> – Children show good control and co-ordination in large and small movements. – They handle equipment and tools effectively.
Personal, social and emotional development Helping children to develop a positive sense of themselves, and others; to form positive relationships and develop respect for others; to develop social skills and learn how to manage their feelings; to understand appropriate behaviour in groups; and to have confidence in their own abilities.	Self-confidence and self-awareness	<ul style="list-style-type: none"> – Children are confident to try new activities, and say why they like some activities more than others. – They are confident to speak in a familiar group, will talk about their ideas, and will choose the resources they need for their chosen activities. – They say when they do or don't need help.
	Managing feelings and behaviour	<ul style="list-style-type: none"> – They work as part of a group or class, and understand and follow the rules. – They adjust their behaviour to different situations.
	Making relationships	<ul style="list-style-type: none"> – Children play co-operatively, taking turns with others. – They take account of another's ideas about how to organise their activity.
Specific areas:		
Literacy Encouraging children to link sounds and letters and to begin to read and write. Children must be given access to a wide range of reading materials to ignite their interest.	Reading	<ul style="list-style-type: none"> – Children read and understand simple sentences. – They use phonic knowledge to decode regular words and read them aloud accurately. – They also read some common irregular words.
	Writing	<ul style="list-style-type: none"> – Children use their phonetic knowledge to write words in ways which match their spoken sounds. – They also write some irregular common words. – They write simple sentences which can be read by themselves and others.

<p>Mathematics</p> <p>Providing children with opportunities to develop and improve their skills in counting, understanding and using numbers, and to describe shapes, spaces, and measure.</p>	Numbers	<ul style="list-style-type: none"> – Children count reliably with numbers from 1 to 20. – They solve problems.
	Shape, space and measures	<ul style="list-style-type: none"> – Children use everyday language to talk about size, weight, capacity, position, distance and time to compare quantities and objects and to solve problems. – They recognise, create and describe patterns. – They explore characteristics of everyday objects and shapes and use mathematical language to describe them.
<p>Understanding the world</p> <p>Guiding children to make sense of their physical world and their community through opportunities to explore, observe and find out about people, places, technology and the environment.</p>	People and communities	<ul style="list-style-type: none"> – Children talk about past and present events in their own lives and in the lives of family members. – They know about similarities and differences between themselves and others, and among families, communities and traditions.
	The world	<ul style="list-style-type: none"> – Children know about similarities and differences in relation to places, objects, materials and living things. – They talk about the features of their own immediate environment and how environments might vary from one another. – They make observations of animals and plants and explain why some things occur, and talk about changes.
	Technology	<ul style="list-style-type: none"> – Children recognise that a range of technology is used in places such as homes and schools. – They select and use technology for particular purposes.
<p>Expressive arts and design</p> <p>Enabling children to explore and play with a wide range of media and materials, as well as providing opportunities and encouragement for sharing their thoughts, ideas and feelings through a variety of activities in role-play, and design and technology.</p>	Exploring and using media and materials	<ul style="list-style-type: none"> – They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
	Being imaginative	<ul style="list-style-type: none"> – Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. – They represent their own ideas, thoughts and feelings through design and technology, art, role-play and stories.

Key Stage 1			
		Year 1	Year 2
<p>Spoken language</p> <p>Ensure the continual development of pupils' confidence and competence in spoken language and listening skills. Spoken language is important for pupils' development across the whole curriculum – cognitively, socially and linguistically. Spoken language underpins the development of reading and writing.</p>		<ul style="list-style-type: none"> – Listen and respond appropriately to adults and their peers. – Ask relevant questions to extend their understanding and knowledge. – Articulate and justify answers, arguments and opinions. – Give well-structured descriptions, explanations and narratives for different purposes. – Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments. – Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas. – Participate in discussions, presentations, performances, role play, improvisations and debates. – Consider and evaluate different viewpoints, attending to and building on the contributions of others. 	
<p>English</p> <p>Pupils need to develop the skill of blending the sounds into words for reading and establish the habit of applying this skill whenever they encounter new words.</p> <p>Pupils at the beginning of year 2 should be able to compose individual sentences orally and then write them down.</p>	Reading (word reading)	<ul style="list-style-type: none"> – Apply phonic knowledge and skills as the route to decode words. – Read accurately by blending sounds in unfamiliar words containing GPCs that have been taught. 	<ul style="list-style-type: none"> – Read further common exception words, noting unusual correspondences between spelling and sound and where these occur in the word. – Read most words quickly and accurately, without overt sounding and blending, when they have been frequently encountered.
	Reading (comprehension)	<ul style="list-style-type: none"> – Develop pleasure in reading, motivation to read, vocabulary and understanding. – Participate in discussion about what is read to them, taking turns and listening to what others say. 	<ul style="list-style-type: none"> – Discussing and clarifying the meanings of words, linking new meanings to known vocabulary.
	Writing (transcription)	<ul style="list-style-type: none"> – Apply simple spelling rules and guidance. 	<ul style="list-style-type: none"> – Learning new ways of spelling phonemes for which one or more spellings are already known, and learn some words with each spelling, including a few common homophones. – Learning to spell common exception words.
	Writing (composition)	<ul style="list-style-type: none"> – Write sentences. – Discuss what they have written with the teacher or other pupils. 	<ul style="list-style-type: none"> – Develop positive attitudes towards and stamina for writing by writing for different purposes. – Consider what they are going to write before beginning by writing down ideas and/or key words, including new vocabulary.
	Writing (vocabulary, grammar and punctuation)		<ul style="list-style-type: none"> – Learn how to use sentences with different forms: statement, question, exclamation, command.

Key Stage 1

		Year 1	Year 2
<p>Mathematics</p> <p>Ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources (for example, concrete objects and measuring tools).</p>	Number (number and place value)	<ul style="list-style-type: none"> – Count to and across 100. – Read and write numbers from 1 to 20. 	<ul style="list-style-type: none"> – Read and write numbers to at least 100 in numerals and in words. – Use place value and number facts to solve problems.
	Number (addition and subtraction)	<ul style="list-style-type: none"> – Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representation. 	<ul style="list-style-type: none"> – Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures.
	Number (multiplication and division)	<ul style="list-style-type: none"> – Solve one-step problems involving multiplication and division. 	<ul style="list-style-type: none"> – Solve problems involving multiplication and division, using materials and multiplication and division facts, including problems in contexts.
	Number (fractions)	<ul style="list-style-type: none"> – Recognise, find and name a half as one of two equal parts of an object, shape or quantity . – Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. 	<ul style="list-style-type: none"> – Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.
	Measurement	<ul style="list-style-type: none"> – Compare, describe and solve practical problems for: <ul style="list-style-type: none"> – lengths and heights – mass/weight – capacity and volume – time – mass/weight – capacity and volume – time – Sequence events in chronological order using language. 	<ul style="list-style-type: none"> – Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) and mass (kg/g) to the nearest appropriate unit, using rulers and scales.
	Geometry (properties of shape)	<ul style="list-style-type: none"> – Recognise and name common 2-D and 3-D shapes, including: <ul style="list-style-type: none"> – 2D shapes – 3D shapes 	<ul style="list-style-type: none"> – Identify and describe the properties of 2-D shapes. – Identify and describe the properties of 3-D shapes. – Identify 2-D shapes on the surface of 3-D shapes. – Compare common 2-D and 3-D shapes and everyday objects.
	Geometry (position and direction)	<ul style="list-style-type: none"> – Describe position, direction and movement, including whole, half, quarter and three-quarter turns. 	<ul style="list-style-type: none"> – Order and arrange combinations of objects in patterns and sequences. – Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).

Key Stage 1			
		Year 1	Year 2
Science Enable pupils to experience and observe phenomena, looking more closely at the natural and humanly-constructed world around them. They should be encouraged to be curious and ask questions about what they notice.	Working scientifically	<ul style="list-style-type: none"> – Asking simple questions and recognising that they can be answered in different ways. – Observing closely, using simple equipment. – Performing simple tests. – Identifying and classifying. – Using their observations and ideas to suggest answers to questions. 	
	Everyday materials	<ul style="list-style-type: none"> – 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. – Describe the simple physical properties of a variety of everyday materials. 	<ul style="list-style-type: none"> – Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
Art and Design Engage, inspire and challenge pupils, equipping them with the knowledge and skills to experiment, invent and create their own works of art, craft and design.		<ul style="list-style-type: none"> – Use a range of materials creatively to design and make products. – Use drawing to develop and share their ideas, experiences and imagination. 	
Design and Technology Pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.	Design	<ul style="list-style-type: none"> – 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 and mock-ups. 	
	Make	<ul style="list-style-type: none"> – Select from and use a range of tools and equipment to perform practical tasks. – Select from and use a wide range of materials and components, including construction materials according to their characteristics. 	
	Evaluate	<ul style="list-style-type: none"> – Explore and evaluate a range of existing products. – Evaluate their ideas and products against design criteria. 	
	Technical knowledge	<ul style="list-style-type: none"> – Build structures, exploring how they can be made stronger, stiffer and more stable. – Explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products. 	