

Parent Curriculum Information Booklet Year 5 and 6

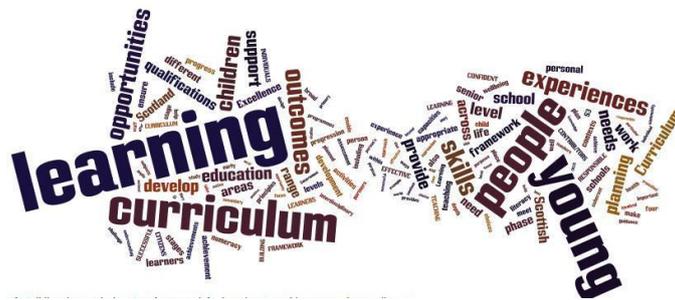
Introduction to the curriculum

For generations, parents have found themselves visiting primary schools with their children only to hear themselves say, “It wasn’t like that when I was at school.” Things change quickly in education. This guide intends to support parents of primary Years 5 and 6 children by providing an outline of typical content and some background information about how the curriculum works.

English, Mathematics and Science remain very important and are considered the core subjects in both primary and secondary education. The National Curriculum sets out in some detail what must be taught in each of these subjects, as well as, Arabic, Islamic and Social Science. They will take up a substantial part of your child’s learning week. Alongside these are the familiar foundation subjects: Art/Design & Technology, Computing, Modern Foreign Languages (Years 3-6), Geography, History, Music and Physical Education. For these subjects, the details in the curriculum are significantly briefer; schools have much more flexibility regarding what they cover and at DIS they are covered through a cross-curricular approach.

High Achievers

If your child is achieving well, rather than moving on to the following year group’s work, we will encourage more in-depth and investigative work to allow a greater mastery and understanding of concepts and ideas.





Social Sciences

In line with the UAE National Priorities and the Dubai Strategic Plan 2021, UAE Social Sciences is taught to all students. The subject matter is designed to teach the values of citizenship and loyalty in their broader meaning among our students. We emphasise the concepts of citizenship and heritage that combine the principles of culture, traditions, and affiliations to the UAE.

We use the new curriculum for Moral, Social and Cultural Studies (MSC) where the essences of Moral Education and Social Studies have been blended together in order to develop morally strong individuals, who exhibit the knowledge, skills, attitudes and behaviours to make sense of the world around them and to thrive as happy, successful and responsible global citizens.

	MORAL	SOCIAL	CULTURAL
Description	Description Developing the individual as a moral being. Developing the language, understanding and skills of moral thinking and reasoning. Applying moral thinking to the individual in a variety of social contexts, as well as to the development of others in their school, family and local communities.	Equipping individuals with a grounding in the common knowledge of the past, human geography, sociology, economics, information literacy and information processing to create an awareness of the commonality of humanity and to understand the value of lifetime learning.	Understanding how the governing structures and heritage of the UAE can lead to develop loyalty and sense of belonging to the UAE community and participating responsibly as a person living in the UAE society.
Strands	<ul style="list-style-type: none"> Character and Morality Individual and Community 	<ul style="list-style-type: none"> History Sociology Geography Economics Information Literacy Information Processing 	<ul style="list-style-type: none"> Civics Heritage

Within our curriculum, learning and teaching we focus on values, skills and character traits which link inextricably to our learner attributes such as critical thinking, decision making, problem solving and inquiry.

Values	<ul style="list-style-type: none"> honesty tolerance respect responsibility thoughtfulness harmony courage 	Skills	<ul style="list-style-type: none"> handling and understanding information critical thinking, problem solving decision making creativity working with others managing oneself
Character	<ul style="list-style-type: none"> perseverance cooperation resilience self-control altruism ambition independence 	Societal Competencies	<ul style="list-style-type: none"> solidarity recognising diversity and inclusivity civic duties respecting law and order

As citizens of the UAE, we take great pride in the country we live in and the inclusion of UAE Social Science is integrated into the timetable ensures all students learn about the UAE's geography, history and language. They are important parts of our education in the UAE and are incorporated into our school's curriculum to provide students with a better understanding and appreciation for the history, culture and morals of the UAE.



Mathematics in Year 5

Number and Place Value

- Recognise and use the place value of digits in numbers up to 1 million (1,000,000)
- Use negative numbers, including in contexts such as temperature
- Round any number to the nearest 10, 100, 1,000, 10,000 or 100,000
- Read Roman numerals, including years

Calculations

- Carry out addition and subtraction with numbers larger than four digits
- Use rounding to estimate calculations and check answers are of a reasonable size
- Find factors of multiples of numbers, including finding common factors of two numbers
- Know the prime numbers up to 19 by heart, and find primes up to 100
- Use the standard methods of long multiplication and short division
- Multiply and divide numbers mentally by 10, 100 or 1,000
- Recognise and use square numbers and cube numbers

Factors are numbers which multiply to make a product, for example 2 and 9 are factors of 18.

Common factors are numbers which are factors of two other numbers, for example 3 is a factor of both 6 and 18.

Fractions and Decimals

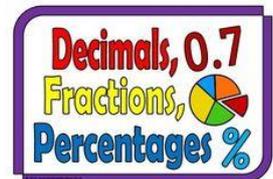
- Put fractions with the same denominator into size order, for example recognizing that $\frac{3}{5}$ is larger than $\frac{2}{5}$
- Convert between improper fractions and mixed numbers, for example recognizing that $\frac{5}{4}$ is equal to $1\frac{1}{4}$
- Find equivalents of common factors
- Add and subtract simple fractions with related denominators, for example $\frac{2}{3} + \frac{1}{6} = \frac{5}{6}$
- Convert decimals to fractions, for example converting 0.71 to $\frac{71}{100}$
- Round decimals to the nearest tenth
- Put decimals with up to three decimal places into size order
- Begin to use the % symbol to relate to the 'number of parts per hundred'

In a fraction, the numerator is the number on top; the denominator is the number on the bottom.

Parent Tip

Much of the knowledge in Year 5 relies on number facts being easily recalled.

For example, to find common factors or to make simple conversions, knowledge of multiplication tables is essential. Any practice at home to keep these skills sharp will certainly be appreciated by your child's class teacher!



Measurements

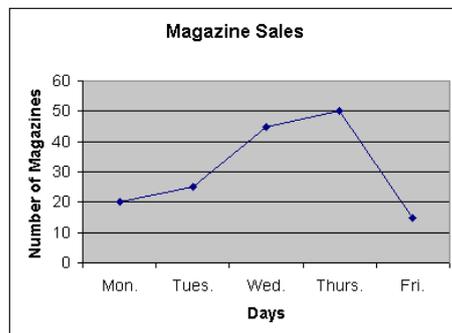
- Convert between metric units, such as centimetres to metres or grams to kilograms
- Use common approximate equivalences for imperial measures, such as $2.5\text{cm} \approx 1\text{ inch}$
- Calculate the area of rectangles using square centimetres or square metres
- Calculate the area of shapes made up of rectangles
- Estimate volume (in cm^3) and capacity (in ml)

Shape and Position

- Estimate and compare angles, and measure them to the nearest degree
- Know that angles on a straight line add up to 180° , and angles around a point add up to 360°
- Use reflection and translation to change the position of a shape

Graphs and Data

- Read and understand information presented in tables, including timetables
- Solve problems by finding information from a line graph



Mathematics in Year 6

By the end of Year 6, children are expected to be confident with the use of all four standard methods for written calculations, and to have secured their knowledge of the key number facts for the four operations. Their work will focus more on fractions, ratio, proportion and the introduction of algebra.

Number and Place Value

- Work with numbers to up ten million (10,000,000) including negative numbers
- Round any number to any required number of digits or magnitude

Calculations

- Use the standard method of long multiplication for calculations of four-digit numbers by two-digit numbers
- Use the standard method of long division for calculations of four-digit numbers by two-digit numbers
- Identify common factors, common multiples and prime numbers
- Carry out complex calculations according to the mathematical order of operations
- Solve complex problems using all four operations

The mathematical order of operations requires that where calculations are written out in long statements, first calculations in brackets are completed, then any multiplication or division calculations, and finally any addition or subtraction. So, for example, the calculation $4 + 3 \times (6 + 1)$ has a solution of 25, not 43 or 49.

Fractions and Decimals

- Use common factors to simplify fractions, or to add fractions with different denominators
- Place any group of fractions into size order
- Multiply pairs of fractions together
- Divide fractions by whole numbers, for example $1/3 \div 2 = 1/6$
- Use division to calculate the decimal equivalent of a fraction
- Know and use common equivalences between fractions, decimals and percentages, such as $1 = 0.5 = 50\%$

Ratio and Proportion

- Find percentages of quantities, such as 15% of £360
- Use ratio to explain relationships and solve problems
- Use simple scale factors for drawings, shapes or diagrams

Parent Tip

Playing traditional games, such as battleships or even draughts and chess, is great for exploring coordinates and movements across the coordinate grid.

Ratio is represented using the colon symbol. For example, if £100 is shared in a ratio of 1:3 between two people, then the first person receives £25 (one part), with the other receiving £75 (three parts).

Algebra

- Use simple formulae
- Describe sequences of numbers where the increase between values is the same each time
- Solve missing number problems using algebra
- Find possible solutions to problems with two variables, such as $a + b = 10$

Measurements

- Convert between any metric units and smaller or larger units of the same measure
- Convert between miles and kilometres
- Use a given formula to find the area of a triangle or parallelogram

Shape and Position

- Draw 2-d shapes using given sizes and angles
- Use knowledge of 2-d shapes to find missing angles in triangles, quadrilaterals and other regular shapes
- Name and label the radius, diameter and circumference of a circle
- Find missing angles in problems where lines meet at a point or on a straight line
- Use a standard grid of coordinates including negative values

Graphs and Data

- Construct and understand pie charts and line graphs
- Calculate the mean average of a set of data

Mean average is calculated by adding up all the values and dividing by the number of items. For example, the mean average of 3, 5, 8, 9 and 10 is 7 ($3 + 5 + 8 + 9 + 10 = 35$, then $35 \div 5 = 7$)

If  = 20, work out the following:

$$\text{★} + \text{★} = \text{▲} + \text{▲} + \text{★}$$

English

Our English Curriculum forms part of our overarching topics and themes and is designed to nurture a love of literacy and develop high competency of language skills. Our wide and varied curriculum teaches students the skills needed to be proficient communicators in the real world, via a range of different genres. Our Primary English curriculum is rigorous, progressive and enables pupils to be fully prepared for further study in the Secondary phase.

Our curriculum introduces students to a full range of literary and non-literary texts from a wide range of cultures and time-periods, thus developing their understanding of how language and literature reflect the world within which they were written, and how language reflects the identities and contexts of the writers. The English curriculum contributes significantly to the wider curriculum of the school and remains a focus when teaching other subjects. This enables students to keep a constant focus on developing communication skills and their understanding and proficiency in using the written and spoken words.

Teachers are sensitive to the needs of students with English as a Second language and appropriate strategies and programs are implemented to ensure that the gaps in language skills are closed as quickly as possible.

We hold several theme days relating to Language and Literacy across the year such as World Book Day and House Vocabulary Day and we nurture the fun and excitement that comes with all aspects of English learning and develop lifelong readers.

In Key Stage 2, story journeys include Achieving the Impossible and Chaos to Calm. Throughout KS2 the students move from decoding words to interpretation. Our students leave KS2 as fluent, confident readers. The students develop their stamina for writing by applying the skills they have learnt to extended pieces of writing in a wide range of genres using characters, dialogue and high level, imaginative vocabulary.

English in Year 5 and 6

In upper Key Stage 2, your child will increasingly meet a wider range of texts and types of writing, and will be encouraged to use their skills in a broader range of contexts. Their knowledge of grammar will also increase as they prepare for the National Curriculum Tests to be taken in the summer term of Year 6.

Speaking and Listening

- Speak clearly in a range of contexts, using Standard English where appropriate
- Monitor the reactions of listeners and react accordingly
- Consider different viewpoints, listening to others and responding with relevant views
- Use appropriate language, tone and vocabulary for different purposes

Reading Skills

- Read a wide range of fiction, non-fiction, poetry, plays and reference books
- Learn a range of poetry by heart
- Perform plays and poems using tone, volume and intonation to convey meaning
- Use knowledge of spelling patterns and related words to read aloud and understand new words
- Make comparisons between different books, or parts of the same book
- Read a range of modern fiction, classic fiction and books from other cultures and traditions
- Identify and discuss themes and conventions across a wide range of writing
- Discuss understanding of texts, including exploring the meaning of words in context
- Ask questions to improve understanding of texts
- Summarise ideas drawn from more than one paragraph, identifying key details
- Predict future events from details either written in a text or by 'reading between the lines'
- Identify how language, structure and presentation contribute to meaning
- Discuss how authors use language, including figurative language, to affect the reader
- Make book recommendations, giving reasons for choices
- Participate in discussions about books, building on and challenging ideas
- Explain and discuss understanding of reading
- Participate in formal presentations and debates about reading

Parent Tip

As children get older, they will increasingly take responsibility for their own work and homelearning tasks. That's not to say that parents can't help though. Encourage your child to work independently on their work, but also take the opportunity to discuss it with them and to have them explain their understanding to you.

Figurative language includes metaphorical phrases such as 'raining cats and dogs' or 'an iron fist', as well as using language to convey meaning, for example by describing the Sun as 'gazing down' upon a scene.

Themes & Conventions

As children's experience of a range of texts broadens, they may begin to notice conventions, such as the use of first person for diary-writing, or themes such as heroism or quests.

Writing Skills

- Write with increasing speed, maintaining legibility and style
- Spell some words with silent letters, such as knight and solemn
- Recognise and use spellings for homophones
- Use a dictionary to check spelling and meaning
- Identify the audience and purpose before writing, and adapt accordingly
- Select appropriate grammar and vocabulary to change or enhance meaning
- Develop setting, atmosphere and character, including through dialogue
- Write a summary of longer passages of writing
- Use a range of cohesive devices
- Use advanced organisational and presentational devices, such as bullet points
- Use the correct tense consistently throughout a piece of writing
- Ensure correct subject and verb agreement
- Perform compositions using appropriate intonation, volume and movement
- Use a thesaurus
- Use expanded noun phrases to convey complicated information concisely
- Use modal verbs or adverbs to indicate degrees of possibility
- Use relative clauses
- Recognise vocabulary and structures that are appropriate for formal use
- Use passive verbs to affect the presentation of information
- Use the perfect form of verbs to mark relationships of time and cause
- Recognise the difference in informal and formal language
- Use grammatical connections and adverbials for cohesion
- Use ellipses, commas, brackets and dashes in writing
- Use hyphens to avoid ambiguity
- Use semi-colons, colons and dashes between independent clauses
- Use a colon to introduce a list
- Punctuate bullet points consistently

Grammar Tips

For many, the grammatical terminology used in schools may not be familiar. Here are some useful reminders of some of the terms used:

- **Noun phrase:** a group of words which takes the place of a single noun.
Example: The big brown dog with the fluffy ears.
- **Modal verb:** a verb that indicates possibility. These are often used alongside other verbs. Example: will, may, should, can.
- **Relative clause:** a clause which adds extra information or detail. Example: The boy who was holding the golden ticket won the prize.
- **Passive verb:** a form of verb that implies an action being done to, rather than by, the subject. Example: The boy was bitten by the dog.
- **Perfect form:** a form of verb that implies that an action is completed. Example: The boy has walked home.



At Deira International School, our Science curriculum allows students to explore and discover the world around them, enabling them to develop a deeper understanding of the world in which we live in. Students are naturally curious. We aim to provide a stimulating curriculum, in line with the National Curriculum of the UK, which nurtures this natural curiosity alongside their on-going intellectual development.

Science is hands-on and inquiry based allowing students the opportunity to explore, question, discover and explain. Students experience the joy of having wonderful ideas, challenges, explorations, and investigations. Our aim is for the students to develop and extend their scientific knowledge and vocabulary through stimulating experiences. We want our students to be life-long learners who continue to be curious about the world around them, developing enquiry minds.

Teachers have outstanding subject knowledge in Science which enables students to have a positive attitude to their learning and reach their full potential through the level of personalised challenge.

In Deira International School, we follow a whole school approach to the teaching and learning of Science.

- A cycle of lessons for each topic is carefully planned for to ensure progression and depth.
- Through our planning, we involve problem solving, enquiry and investigation opportunities that allow students to discover knowledge for themselves.
- Using precise questioning, teachers regularly assess students to identify misconceptions and gaps in learning which are addressed to ensure students achieve.
- Retrieval questions at the beginning of lessons help create a deeper level of understanding, moving knowledge to student's long-term memory.
- We build upon student's previous knowledge and skill development each year. As the student's confidence and skills develop, they become more proficient and independent in selecting equipment, making predictions and drawing conclusions.
- Working scientifically is embedded into all lessons to ensure students are developing skills and vocabulary throughout their school journey.
- Teachers demonstrate how to use scientific equipment and working scientifically skills to embed understanding and to develop student's knowledge of their surroundings by providing opportunities for outdoor learning.
- Regular events like Science Week and STEAM Week allow students to further embed scientific skills and knowledge whilst providing a broader provision.

Science in Year 5

As children get older, they begin to meet more abstract concepts in science – things which are not so easily tested in the classroom, such as the bodies of the solar system, or changes of state. They will continue to carry out experiments but may also use more secondary resources for research or investigation.

Scientific Investigations

Investigation work should form part of the broader science curriculum. During Year 5, some of the skills your child will be exposed to are:

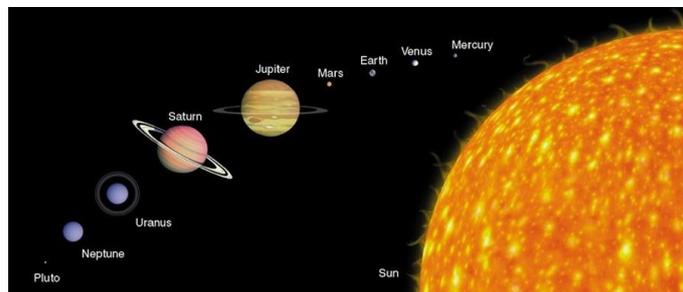
- Plan different types of scientific investigation, including controlling variables
- Take measurements with increasing accuracy and precision
- Record data and results using diagrams, labels, keys, tables and graphs
- Use test results to make predictions and to set up more testing
- Identify the evidence that has been used to support or refute ideas

Living things and their habitats	Animals, including humans	Properties and changes of materials
describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	describe the changes as humans develop to old age.	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
describe the life process of reproduction in some plants and animals.		know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
		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
		demonstrate that dissolving, mixing and changes of state are reversible changes 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 and the action of acid on bicarbonate of soda.

Life cycles include different stages for the main vertebrate groups, such as eggs, larvae and pupae. These can be seen in tadpoles and frogs, caterpillars and butterflies, and of course the chicken and the egg.

Earth and Space	Forces
describe the movement of the Earth, and other planets, relative to the Sun in the solar system	explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
describe the movement of the Moon relative to the Earth	identify the effects of air resistance, water resistance and friction, that act between moving surfaces
describe the Sun, Earth and Moon as approximately spherical bodies	recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.
use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	

Parent Tip Plenty of exciting experiments can take place at home looking at reversible and irreversible changes. Try searching online for the 'vinegar bomb' experiment, or the now-famous 'Coke and Mentos' experiment.



Science in Year 6

Again in Year 6, many of the scientific concepts that children meet are more abstract, such as the study of evolution, or the behaviour of light. There are still plenty of opportunities for investigation, and also to find out about the work of some great scientists of today and the past.

Scientific Investigations

Investigation work should form part of the broader science curriculum. During Year 6, some of the skills your child will be exposed to are:

- Plan a range of scientific investigations and managing the variables effectively
- Take precise measurements, and repeat tests where appropriate to improve the validity of the results
- Present results using tables, scatter graphs, line graphs and other diagrams
- Explain the conclusions drawn from results, including their limitations

Living things and their habitats	Animals, including humans	Evolution and inheritance
describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals	identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood	recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
give reasons for classifying plants and animals based on specific characteristics.	recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
	describe the ways in which nutrients and water are transported within animals, including humans.	identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

At this age, invertebrate animals can be grouped into categories such as insects, spiders, snails and worms.

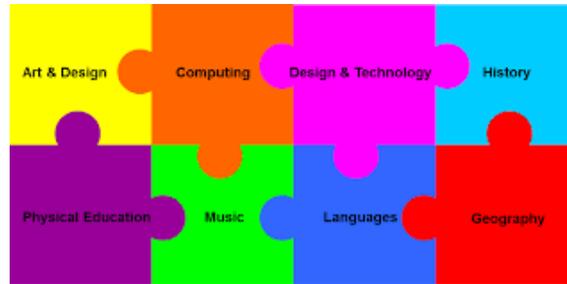
Evolution is not a planned process of adaptation, but rather the unintended result of more random changes which led to animals being better-suited to the environments in which they lived.



Light	Electricity
recognise that light appears to travel in straight lines	associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
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	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
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	use recognised symbols when representing a simple circuit in a diagram.
use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	

Parent Tip Conversations about evolution and inheritance often lead to interesting discussions at home. Some traits which are inherited are not always passed on, such as hair or eye colour. Interestingly, you can also compare whether members of your family have attached or detached earlobes, or whether they can roll their tongues.

The Foundation Subjects



At Deira International School we do not always teach the foundation subjects discretely. As part of our Topic based curriculum our subject objectives are around the theme we are exploring. This enables our children to make connections with the wider world.

Here is a brief outline of what will be cover in the foundation subjects at DIS:

Art

In each of the Primary year groups, children will explore a range of different techniques under six key categories: texture, colour, printing, form, pattern and drawing. They will gain experience using a variety of materials from sketching pencils to charcoal and from a range of paints, such as acrylic, to clay. All children will learn key skills and build on these to create their own art pieces. Additionally, in each key stage, children will focus on some great artists, architects, photographers and designers, looking at one each term or half term.



History

In **Key Stage 2** areas of focus include the achievements of the earliest civilisations. Children look at where and when the first civilisations appeared and complete in-depth studies using and creating timelines and researching, using a variety of sources. Higher up in Key Stage 2, children begin to make comparisons and look at the influences of different periods of time and civilisations.

Geography

Across Primary, children will find out about different places in the world through studying small regions in several continents and comparing these to other areas, including their own locality. They will learn through four key areas: locational knowledge, place knowledge, human and physical geography and geographical skills and fieldwork.

In **Key Stage 2**, children locate the countries of the world, naming major regions and cities. They explore geographical similarities and differences through human and physical geography of different regions using atlases, globes and digital mapping. Higher up in Key Stage 2, children also begin to explore countries using grid references.

Human geography features to study	Physical geography features to study
Types of settlements and land use Economic activity including trade links Distribution of natural resources	Volcanos Water cycle Rivers Climate zones Earthquakes

Computing

There are three main strands of the new Computing curriculum: information technology, digital literacy and computer science.



Information technology is about the use of computers for functional purposes, such as collecting and presenting information, or using search technology. Digital literacy is about the safe and responsible use of technology, including recognising its advantages for collaboration or communication. Finally, Computing will introduce children of all ages to understanding how computers and networks work. It will also give all children the opportunity to learn basic computer programming, from simple floor robots in Years 1 and 2, right up to creating on-screen computer games and programmes by Year 6. At DIS, we will use programming software which is freely available online, such as Scratch or Kodu.

We will also include regular teaching of e-safety to ensure that children feel confident when using computers and the Internet, and know what to do if they come across something either inappropriate or uncomfortable.

For more information on digital citizenship at home, please visit www.commonsemmedia.org

Performing Arts

At DIS, children will listen to and perform a range of music as well as participate in a variety of linked Drama activities.

In **Key Stage 2**, children will perform musical pieces both alone, and as part of a group, using their own voice and a range of musical instruments. This will include those with tuning such as glockenspiels or keyboards. They will both improvise and compose pieces using their knowledge of the different dimensions of music such as rhythm and pitch. They will also begin to use musical notation and to learn about the history of music. In Drama focused sessions students will develop their subject specific vocabulary, as well as their speaking and listening skills. They will use a variety of dramatic techniques and explore topics and subject matter through role-play.

At all levels, students will get opportunities to perform on a small scale within the school day or more formally in the theatre. These performance opportunities are an excellent way to nurture talent, foster self-confidence and to celebrate our children's successes in Performing Arts.



Physical Education

Physical Education lessons will continue to include a range of individual disciplines such as dance and athletics, with team sports and games. Through these sports, children should learn the skills of both cooperation and competition.

Lessons occur twice weekly and last for approximately 50 minutes. Within these sessions pupils cover nine different activity areas that are taught in 6/7 week blocks. These activities are from the categories of team games, striking and fielding games, aesthetics and swimming.

Swimming at DIS is a major part of the curriculum and using our two pools all pupils are involved in the schools programme. In this programme pupils are not only taught to refine their stroke work but also to complete set tasks in order to progress through the stages.