

# Parent Curriculum Information Booklet Year 3 and 4



#### 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 3 and 4 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 Moral Social Cultural Studies. 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 indepth and investigative work to allow a greater mastery and understanding of concepts and ideas.







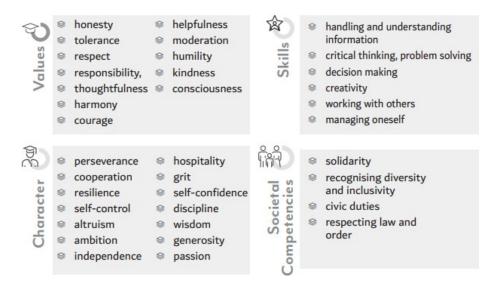
#### **Moral Social Cultural Studies**

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 (MSCS) where the essences of Moral Education and Social Studiers 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 lifeline 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><li>Character and Morality</li><li>Individual and</li><li>Community</li></ul>	<ul> <li>➢ History</li> <li>➢ Sociology</li> <li>➢ Geography</li> <li>➢ Economics</li> <li>➢ Information Literacy</li> <li>➢ Information Processing</li> </ul>	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.



As citizens of the UAE, we take great pride in the country we live in and the inclusion of Moral Social Cultural Studies in 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 armorals of the UAE.



#### **Mathematics**

## 'High- quality mathematics provides a foundation for understanding the world' (Primary National Curriculum)

At Deira International School we are dedicated to promoting enthusiasm and enjoyment of mathematics through the provision of a range of experiences which enable all children to achieve and which develop, maintain and stimulate their curiosity and interest. We place great emphasis on encouraging children to talk about their ideas in mathematics and to reason mathematically, using a wide range of vocabulary. Developing the children's confidence and accuracy with their understanding and recall of mathematical facts and knowledge is important. The application of these skills and concepts to real-life problem- solving contexts is also at the heart of our learning and teaching at Deira International School.

Students are taught a range of mathematical topics in each year group. Some topics are repeated year on year with progressively more challenging curriculum content introduced. In every lesson and every topic, problem-solving and reasoning opportunities are integrated, In the classroom, the use of concrete resources, as well as pictorial representations, support student's conceptual understanding of the curriculum content. Mathematical topics are taught using a blocked approach to ensure that students are given adequate time to develop a depth of understanding before moving on with their learning.

#### In addition:

- Planning allows for deeper understanding with students demonstrating high levels of fluency in performing written and mental calculations and mathematical techniques.
- Children complete 'Fluent in Five' task in order to continually develop calculation fluency.
- Lessons are planned to engage and challenge all students.
- Mathematical language is used consistently by both teachers and students.
- Individual learning styles (concrete, pictorial and abstract) and the academic abilities of all students in the class are catered for.
- Mental Maths and Arithmetic assessments take place regularly to track fluency skill development.
- There is regular use of ICT resources Numbots, Times Table Rockstars & Century Tech both in class and at home to reinforce fluency.
- Lessons allow time for thinking, encouraging discussion and promoting perseverance.
- Lessons make problem solving, reasoning and investigation integral to student's learning of mathematics.





#### **Mathematics in Year 3**

During the years of lower Key Stage 2 (Year 3 and Year 4), the focus of mathematics is on the mastery of the four operations (addition, subtraction, multiplication and division) so that children can carry out calculations mentally, and using written methods. In Year 3, your child will be introduced to the standard written column methods of addition and subtraction.

#### **Number and Place Value**

- Count in multiples of 4, 8, 50 and 100
- Recognise the place value of digits in three-digit numbers (using 100, 10s and 1s)
- Read and write numbers up to 1,000 using digits and words
- Compare and order numbers up to 1,000

#### **Calculations**

- Add and subtract numbers mentally, including adding either 1s, 10s or units to a 3-digit number
- Use the standard column method for addition and subtraction for up to three digits
- Estimate the answers to calculations, and use inverse calculations to check the answers
- $\bullet$  Learn the 3x, 4x and 8x tables and the related division facts, for example knowing that 56
- $\div 8 = 7$
- Begin to solve multiplication and division problems with two-digit numbers

#### **Fractions**

Equivalent fractions are fractions which have the same value, such as 1/2 and 3/6 or 1/4 and 2/8

- Understand and use tenths, including counting in tenths
- Recognise and show equivalent fractions with small denominators
- Put a sequence of simple fractions into size order
- Add and subtract simple fractions worth less than one, for example 5/7 + 1/7 = 6/7

#### **Measurements**

- Solve simple problems involving adding and subtracting measurements such as length and weight
- Measure the perimeter of simple shapes
- Add and subtract amounts of money, including giving change
- Tell the time to the nearest minute using an analogue clock
- Use vocabulary about time, including a.m. and p.m., hours, minutes and seconds
- Know the number of seconds in a minute and the number of days in a year or leap year



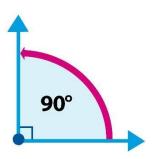
#### **Shape and Position**

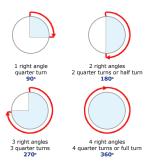
- Draw familiar 2-d shapes and make familiar 3-d shape models
- Recognise right angles, and know that these are a quarter turn, with four making a whole turn
- Identify whether an angle is greater than, less than or equal to a right angle
- Identify horizontal, vertical, perpendicular and parallel lines

Parallel lines are those which run alongside each other and never meet. Perpendicular lines cross over each other meeting exactly at right angles.

#### **Graphs and Data**

- Present and understand data in bar charts, tables and pictograms
- Answer questions about bar charts that compare two pieces of information





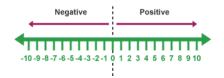


#### **Mathematics in Year 4**

By the end of Year 4, children will be expected to know all of their times tables up to 12 x 12. This means not only recalling them in order but also being able to answer any times table question at random, and also knowing the related division facts. For example, in knowing that  $6 \times 8 = 48$ , children can also know the related facts that  $8 \times 6 = 48$  and that  $48 \div 6 = 8$  and  $48 \div 8 = 6$ . This expertise will be particularly useful when solving larger problems and working with fractions.

#### **Number and Place Value**

- Count in multiples of 6, 7, 9, 25 and 1,000
- Count backwards, including using negative numbers
- Recognise the place value in numbers of four digits (1000s, 100s, 10s and 1s)
- Put larger numbers in order, including those greater than 1,000
- Round any number to the nearest 10, 100 or 1,000
- Read Roman numbers up to 100



Roman Numerals' Basics:

I = 1; V = 5; X = 10; L = 50; C = 100

Letters can be combined to make larger numbers. If a smaller value appears in front of a larger one then it is subtracted, e.g. IV (5-1) means 4. If the larger value appears first then they are added, e.g. VI (5+1) means 6.

#### **Calculations**

- Use the standard method of column addition and subtraction for values up to four digits
- Solve two-step problems involving addition and subtraction
- Know the multiplication and division facts up to 12 x 12 = 144
- Use knowledge of place value, and multiplication and division facts to solve larger calculations
- Use factor pairs to solve mental calculations, e.g. knowing that 9 x 7 is the same as 3 x 3 x 7
- Use the standard short multiplication method to multiply three-digit numbers by two- digit numbers

#### **Fractions**

- Use hundredths, including counting in hundredths
- Add and subtract fractions with the same denominator, e.g 4/7 + 5/7
- Find the decimal value of any number of tenths or hundredths, for example 7/100 is 0.07
- Recognise the decimal equivalents of 1/4, 1/2 and 3/4
- Divide one- or two-digit numbers by 10 or 100 to give decimal answers
- Round decimals to the nearest whole number
- Compare the size of numbers with up to two decimal places



#### **Measurements**

- Convert between different measures, such as kilometres to metres or hours to minutes
- Calculate the perimeter of shapes made of squares and rectangles
- Find the area of rectangular shapes by counting squares
- Read, write and convert times between analogue and digital clocks, including 24- hour clocks
- Solve problems that involve converting amounts of time, including minutes, hours, days, weeks and month

#### **Shape and Position**

- Classify groups of shapes according to the properties, such as sides and angles
- Identify acute and obtuse angles
- Complete a simple symmetrical figure by drawing the reflected shape
- Use coordinates to describe the position of something on a standard grid
- Begin to describe movements on a grid by using left/right and up/down measures

#### **Graphs and Data**

• Construct and understand simple graphs using discrete and continuous data

Discrete data is data which is made up of separate values, such as eye colour or shoe size. Continuous data is that which appears on a range, such as height or temperature.

#### Multiplication Square 12 Times Table

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
159	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144



#### **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 timeperiods, 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 we nurture the fun and excitement that comes with all aspects of English learning and develop lifelong readers.

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 3 and 4**

#### **Speaking and Listening**

- Use discussion and conversation to explore and speculate about new ideas
- Begin to recognise the need to use Standard English in some contexts
- Participation in performances, plays and debates
- Explain thinking and feeling in well-structured statements and responses

#### **Reading Skills**

- Extend skills of decoding to tackle more complex words, including with unusual spelling patterns
- Read a wide range of fiction, non-fiction and literary books
- Recognise some different forms of poetry
- Use dictionaries to find the meanings of words
- Become familiar with a range of traditional and fairy tales, including telling some orally
- Identify words which have been chosen to interest the reader
- Make predictions about what might happen next in a story
- Summarise ideas from several paragraphs of writing
- Find and record information from non-fiction texts
- Take part in discussions about reading and books and ask questions
- Draw simple inferences about events in a story, such as how a character might be feeling

#### **Writing Skills**

- Spell words that include prefixes and suffixes, such as anticlockwise
- Write with joined handwriting, making appropriate join choices
- Use a dictionary to check spellings
- Use possessive apostrophes correctly in regular and irregular plurals, such as children's and boys'
- Use examples of writing to help them to structure their own similar texts
- Plan out sentences orally to select adventurous vocabulary
- Use paragraphs to organise ideas
- Use description and detail to develop characters and settings in story-writing
- Write interesting narratives in stories
- In non-fiction writing, use features such as sub-headings and bullet points
- Review their own work to make improvements, including editing for spelling errors
- Read others' writing and suggest possible improvements
- Read aloud work that they've written to be clearly understood
- Extend sentences using a wider range of conjunctions, including subordinating conjunctions
- Use the present perfect verb tense
- Use nouns and pronouns with care to avoid repetition
- Use a wide range of conjunctions, adverbs and prepositions to add detail about time or cause

To add information to a sentence about its location, children might use conjunctions ("Although it was still early..."), adverbs ("Early that morning...") or prepositions ("At about six-thirty that morning..."). Often these techniques allow children to write sentences that are more complex.



#### **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:

- **Present perfect tense**: a tense formed using the verb 'have' and a participle, to indicate that an action has been completed at an unspecified time, e.g. The girl has eaten her ice-cream
- **Fronted adverbial**: a word or phrase which describes the time, place or manner of an action, which is placed at the start of the sentence, e.g. "Before breakfast," or "Carrying a heavy bag,"
- Direct speech: words quoted directly using inverted commas, as opposed to being reported in a sentence



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 peronalised 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 STEAM Week allow students to further embed scientific skills and knowledge whilst providing a broader provision.



#### Science in Year 3

During Key Stage 2 (Years 3 to 6), the strands of science begin to become more recognisable as biology, chemistry and physics, although they will usually be grouped together in primary school. Children will continue to carry out their own experiments to find out about the world around them, and to test their own hypotheses about how things work.

#### **Scientific Investigations**

Investigation work should form part of the broader science curriculum. During Year 3, some of the skills your child will be exposed to are:

- Set up simple comparative tests, ensuring that they are carried out fairly
- Make systematic observations, using appropriate equipment and standard units
- Gather and record information to help to answer scientific questions
- Use results to draw simple conclusions or to raise further questions
- Use straightforward scientific evidence to answer questions

Plants	Animals, including humans	Rocks
identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	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	compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant	identify that humans and some other animals have skeletons and muscles for support, protection and movement.	describe in simple terms how fossils are formed when things that have lived are trapped within rock
investigate the way in which water is transported within plants		recognise that soils are made from rocks and organic matter.
explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.		

At this level, rocks are often grouped into one of three categories:

Igneous: rocks formed from magma under the Earth's surface, often after a volcano, or deep underground.

Metamorphic: rocks formed under great heat or pressure under the Earth's surface, such as slate or marble.

Sedimentary: rocks formed where sediment builds up in deposits under lakes or oceans.



Light	Forces and magnets
recognise that they need light in order to see things and that	
dark is the absence of light	compare how things move on different surfaces
	notice that some forces need contact between two objects,
notice that light is reflected from surfaces	but magnetic forces can act at a distance
recognise that light from the sun can be dangerous and that	observe how magnets attract or repel each other and attract
there are ways to protect their eyes	some materials and not others
	compare and group together a variety of everyday materials
recognise that shadows are formed when the light from a	on the basis of whether they are attracted to a magnet, and
light source is blocked by a solid object	identify some magnetic materials
find patterns in the way that the size of shadows change.	describe magnets as having two poles
iniu patterns in the way that the size of shadows change.	predict whether two magnets will attract or repel each other,
	depending on which poles are facing.

#### **Parent Tip**

Many families will have a magnet of some form about the house, and this makes a great tool for scientific investigation.

A fun experiment is to compare whether household objects are attracted to magnets, such as keys, tins, cans, and even different denominations of coin.









#### Science in Year 4

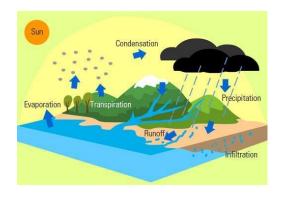
During Year 4, children begin to use more scientific vocabulary to describe objects and processes, such as describing solids, liquids and gases, or erosion. Vocabulary is a key part of any area of study, and particularly in science. Learning new words – and their spellings – can often be fun when they relate to experiments and science investigations.

#### **Scientific Investigations**

Investigation work should form part of the broader science curriculum. During Year 4, some of the skills your child will be exposed to are:

- Carry out fair tests, using control tests where appropriate
- Take accurate measurements using a range of scientific equipment, including thermometers
- Organise and presenting data to help answer scientific questions
- Record findings using scientific vocabulary, diagrams, charts and tables
- Report on findings using oral and written explanations of results and conclusions

Living things and their habitats	Animals, including humans	States of matter
recognise that living things can be grouped in a variety of ways	describe the simple functions of the basic parts of the digestive system in humans	compare and group materials together, according to whether they are solids, liquids or gases
explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment	identify the different types of teeth in humans and their simple functions	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)
recognise that environments can change and that this can sometimes pose dangers to living things.	construct and interpret a variety of food chains, identifying producers, predators and prey.	identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.





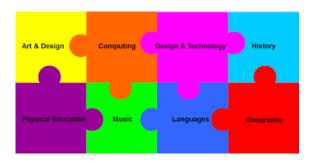
Sound	Electricity
identify how sounds are made, associating some of them with something vibrating	identify common appliances that run on electricity
recognise that vibrations from sounds travel through a medium to the ear	construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
find patterns between the pitch of a sound and features of the object that produced it	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
find patterns between the volume of a sound and the strength of the vibrations that produced it	recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
recognise that sounds get fainter as the distance from the sound source increases	recognise some common conductors and insulators, and associate metals with being good conductors.







### **The Foundation Subjects**



At DIS 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	Volcanos
Economic activity including trade links	Water cycle
Distribution of natural resources	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, computer science 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.commonsensemedia.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 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.