

## Grade 6 – Learning Area specific course descriptions

## ENGLISH

By the end of Grade 6, students understand how the use of text structures can represent ideas, characters, and events and achieve particular effects. They use accurate spelling, punctuation and grammatical devices for clarity.

Students will be able to tell the difference between literal and implied meanings of text after thorough comparison and analysis. They select and use evidence from a text to explain their response to it. They also participate in discussions – clarifying their content and challenging ideas shared by peers. Students contribute actively to class and group discussions, and are able to firmly state their points of view, orally as well as in writing. Students immerse themselves in poetry from all around the world taking time to understand the richness of language and style of the famous poets. Having studied poetry from different parts of the world, they are able to write their own poems which they will present in the form of an anthology.

## MATHEMATICS

The framework of the Mathematics program summarises the essence of mathematics teaching and learning in schools. The learning of mathematics at grade 6 level involves more than the basic acquisition of concepts and skills. It also involves an understanding of mathematical thinking, general problem solving strategies, having positive attitudes to and an appreciation of mathematics as an important and powerful tool in everyday life.

Along with writing and applying algebraic expressions, understanding fractions, ratios and percentages, students would also identify and analyse pie charts. They would be able to identify different shapes and find out volume of different solids as well as liquids. In the Mathematics syllabus, the spiral approach is adopted to ensure that each topic is covered at appropriate levels in increasing depth. This enables pupils to consolidate the concepts and skills learnt and to develop further concepts and skills.

## SECOND LANGUAGE – HINDI/KANNADA

By the end of Grade 6 students begin to understand longer sequence of classroom instructions, presenting their thoughts using appropriate connectors. In addition to this, they will be able to read a set of punctuated texts and give a summary of what others speak.

Students adapt to newer Hindi language resources that prepares them for higher communicative and functional demands of the language. They will be able to link sentences into a coherent paragraph, write small scripts for a role play activity. They demonstrate understanding of how the choice of vocabulary and images affects meaning of text. Students use classroom resources such as pictures, textbooks as well as other resources like members of the family to facilitate learning.

## BIOLOGY

In Biology, Life Sciences explores the cell, the modern cell theory, cell growth, repair and reproduction, structures of organisms and their functions and classification of living things.

Earth Sciences focuses on the study of rocks, minerals and soil, which make up the lithosphere. It explores how classifying and identifying different types of rocks, minerals and soil can decode the past environment in which they formed.

### CHEMISTRY

The Chemistry curriculum introduces the students to laboratory apparatus and its use. The students learn about the properties and differences in the various states of matter and their inter-conversion. Additionally, they gain basic knowledge about atoms, molecules and compounds. They study properties of matter in detail, as well as their pollution, its effects, and prevention. By the end of the Grade 6 they will also explore soil, rocks and minerals in adequate detail.

### PHYSICS

In Physics the students will learn about the tools of fundamental measurements of various physical quantities. Students use scientific inquiry to discover patterns, trends, structures and relationships that may be described by simple principles. These principles are related to the properties or interactions within and between systems. The units focus on crosscutting concepts that all matter is made of small particles called atoms. The properties of matter are based on the order and organization of atoms and molecules. Physical Sciences focuses on matter and motion. Students study foundational concepts of the particulate nature of matter, linear motion, and kinetic and potential energy. Changes of state are explained by a model of matter composed of atoms and/or molecules that are in motion. Energy transfer and efficiency-study Sankey diagrams are explored.

### HISTORY

In History, students delve deep into ancient empires of North and South India. Students learn about Alexander's failed invasion of India and his role in shaping the Greek empire. Students examine how geography, migration, trade, warfare, and the action of missionaries spread ideas and beliefs. They research about Rise of Empires (Maurya, Gupta and Chola Dynasty) and explore the contributions of each empire.

### GEOGRAPHY

In Geography, students explore the diverse environments, people and indigenous cultures within Asia, India and at a global level and expand their mental map of the world. Students examine India's various connections with other countries and places throughout the world, how these are changing, and the effects of these interconnections on a people and place. Students are also introduced to stereotypes and distortions in popular narratives and how they influence our worldview.

### CIVICS

In Civics, they will discover the key institutions in a government, their roles and levels. They will speak to governors and officials and will explain the roles and responsibilities of electors. They will infer how ideas of laws are generated and explain the process of creating laws. They identify the shared value of citizenship and the rights/ duties therein.

### THIRD LANGUAGE

Grade 6 curriculum offers Kannada or Sanskrit as the third language. The third language curriculum helps students with the skills of listening, speaking, reading and writing in a variety of contexts and trains students to be able to adapt language to suit different tasks, audiences and purposes. It aims to develop confidence in the students so that they can communicate in the language effectively. It helps the students work on their ability to critique - to analyse and evaluate diverse texts, thereby, questioning ideas and articulating their point of view.

Learning third language from Grades V to VIII is mandatory for students as per CBSE guidelines.

### COMPUTER SCIENCE

Grade 6 curriculum encourages students to discuss the importance of personal privacy and impacts of technology. Students manipulate data, create and interpret charts in spreadsheets. They describe RAM, its uses and classification. Students explore the image editing software, paint.NET.

Students also learn to solve problems using flowcharts. They explore advanced concepts such as nested IF statements, concatenated IF statements, loops, nested loops and built in functions in Python. Students create animations using the software - Vectorian Giotto.

Practical Skills:

- Collect and enter data in spreadsheets.
- Manipulate data using Goal seek in spreadsheets.
- Create charts using Excel.
- Import images, use editing options such as crop, resize, auto-level adjustments, cloning and artistic effects in paint.NET.
- Write and execute Python programs using sequential, conditional and loop constructs.
- Use built in functions in Python.
- Create simple animations using motion and shape tweens, symbols, buttons and movieclips in Vectorian Giotto.
- Create slideshows and documents on given topics.
- Research and gather information on given topics using internet.
- Use Google Apps to create, modify, share information and collaborate with peers.

### LIFESKILLS

The life-skills curriculum in Middle School is modelled off habits of the mind and heart, used by both students and teachers. This helps students develop a realistic sense of their personal abilities, qualities, strengths and the factors that influence and affect their emotional responses.

Students participate in discussions on real life situations and understand how to tackle such instances – learning how to deal with roles and responsibilities, importance of teamwork, etc. Students are able to express themselves freely in a positive and safe environment.

Through role plays and activities, they learn to show respect for and understand others' perspectives. As learners, they manage and monitor their own emotional responses, and persist in completing tasks and overcoming hurdles.

#### OTHER

Students in Grade 6 also attend weekly sessions in Yoga, Physical Education, Outdoor games and quiet reading time at the school library.