

Grade 8 – Learning Area specific course descriptions

ENGLISH
<p>By the end of Grade 8, students consolidate many of the skills acquired in the previous grades. They are able to select text structures for different purposes and audiences and use various language features, images and vocabulary for the desired effect, and express ideas in new ways. Students learn how events, situations and people can be represented from different viewpoints. They are receptive to others' opinions and points of view, and take a firm stand on their opinion.</p> <p>Students listen for and identify different emphases in texts, using that understanding in discussions and debates. They are able to select language features for particular purposes and effects, and make language choices to influence the audience. Students contribute actively to class and group discussions, using language patterns. They are able to create, edit and refine their writing to make it more effective.</p>
MATHEMATICS
<p>By the end of Grade 8, students further explore concepts of Numbers and Algebra. Students apply the knowledge acquired in their previous grade to delve further into Geometry, Commercial Arithmetic, Statistics and Probability and Mensuration. The curriculum arranges for classroom activities that promotes the true understanding of the nature of mathematics through specific knowledge, skills and attitudes among and between stands.</p>
SECOND LANGUAGE – HINDI*
<p>By the end of Grade 8 students begin to communicate in Hindi using a range of vocabulary and formulaic expressions appropriate for context and need. They recognise and respond to various elements of the language - punctuation marks, anunasik, anuswar and nukta, joining common word (sandhi) and compound words (samās). Students brainstorm, plan, draft and compose written work - samvaad, soochna, chitra varnan, vigyapan and letters. They are receptive to others' opinions – modifying their response and manner of interaction to match context.</p> <p>Students are able to recognize that intonation carries meaning and use comprehensible pronunciation to emphasise what they convey. They use their proficiency in Hindi to explore and study other areas of knowledge through print and non-print media. Students also will make use of formal and informal salutations in their talk and interact with peers to negotiate. They acquire the ability to listen with concentration, empathy and understanding.</p>
BIOLOGY
<p>In Biology, students begin with the study of health, the causes and prevention of disease. They explore the types of reproduction in plants and animals. Additionally, students familiarize with the effects of man's actions on the environment. They develop a basic understanding of soil and agricultural practices, and food production and management.</p>

CHEMISTRY

The Chemistry curriculum delves further into the concepts covered in previous grades - atomic structure and chemical bonding, nuclear energy, isotopes and isobars. Students study the Chemistry of Carbon and its compounds, and Hydrogen. They also learn about the behaviour of metals and non-metals in greater detail and are introduced to the activity series.

PHYSICS

In Physics, students begin with the solar system and the universe, learning about the eclipses and other celestial phenomena. They are introduced to the kinetic theory of matter and continue to explore the study of light, heat and pressure. They begin to understand various practical applications where these concepts are involved. They build upon their understanding of renewable and non-renewable sources of energy.

HISTORY

The Grade 8 curriculum introduces students to India and the world in the Modern Era – the features of the Modern Age, the forces of change and the establishment of British rule in India. Students learn about the reasons behind the founding of the British Rule in India, its political, social, economic and cultural impact on the country and the people. They will examine the actions that unfolded during this time - revolts, rise of the National Movement in India culminating into the struggle for Independence. Students also understand the changes brought about by British Imperialism in India with regards to women in society, the caste system in India, urbanisation, culture and education.

GEOGRAPHY

The focus for the subject in Grade 8 is on resources, both natural and man-made as students examine resources and their management – their use, distribution and how to achieve sustainability in the process. Additionally, they recognise the major units of the economy of India -Agriculture and Industries. Students explore the meaning of disaster, distinguish between man-made and natural disasters, examine the causes and effects, and identify ways of preventing the disaster and mitigating its impact.

CIVICS

Grade 8 Civics provides students opportunities to develop their understanding about government and democracy, the Constitution and the need for laws. They further explore the process of decision making in a democracy, by studying about the functions of the Union government and its role in the development of the country. Students understand role of the police, the services it provides to the community and the law courts. They examine the importance of laws in society and how rules affect them. Students will get to explore more about on cultural diversity in the community – understanding how belonging to different groups can shape one's personal identity. They sensitise themselves by exploring how social justice has been meted out to the marginalised sections of the society.

COMPUTER SCIENCE

Students analyse the consequences of leaving digital footprints online. They get an introduction to Electronics. They learn to identify electronic components, determine resistance values and build simple series and parallel circuits. They identify Arduino Uno board components. They identify hazards of working with electricity. Students use Arduino Uno board and sensors such as motion detectors, photoresistors and piezo-plates to build detection and control systems for specific purposes. Students get an introduction to App Inventor 2. They learn to test and publish apps. Students understand how event based programming languages work. They use control structures in Visual Basic in designing applications for specific needs.

Practical Skills:

- Use resistors, power supply and LEDs to build simple series and parallel dc circuits.
- Design and build detection and control systems using Arduino.
- Explore the use of microcontrollers and sensors in designing solutions to real world problems.
- Use Google apps to create and share information and collaborate with peers.
- Design and build apps that address real world needs using App Inventor 2.
- Design GUIs using sequential, conditional and loop programming constructs for specific purposes and test the GUIs.

THIRD LANGUAGE

Grade 8 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.

~Please check school specific second and third language options. Learning third language from Grades V to VIII is mandatory for students as per CBSE guidelines.

VISUAL ARTS

The curriculum under visual arts is designed to stimulate creativity and imagination among students and hone their artistic skills. Students get to experience various types of media, explore different kinds of art and their techniques. They learn the fundamentals of art and design, gain experience with tools, materials and techniques required for making the art, master the required concept and skills.

WORK EDUCATION

Work Education is viewed as a group of purposive and meaningful activities, organized as an integral part of the learning process. Through this, students attain the right values, habits and ethics to be observed at a workplace. Besides the pleasure of self-fulfilment, it also ensures effective community service.

Work Education helps students gain a deeper understanding of themselves and empathy and respect for others. It further enables the students to discover their real interests and aptitude and also helps them in becoming self – reliant in meeting their day-to-day needs.

LIFESKILLS

The life-skills curriculum in Middle 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 team work, 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 8 also attend weekly sessions in Yoga, Physical Education and quiet reading time at the school library.