

# Grade VI

## മലയാളം

### പഠനനേട്ടങ്ങൾ

- ആശയം താളം ഭാവം എന്നിവ തിരിച്ചറിഞ്ഞ കവിത ഈണത്തിൽ ചൊല്ലി അവതരിപ്പിക്കുന്നു
- കവിയുടെ ആശയം പ്രയോഗഭംഗി ചമൽക്കാരം എന്നിവ ഉൾക്കൊണ്ടുകൊണ്ട് ആസ്വദിക്കുകയും വിശദീകരിക്കുകയും ചെയ്യുന്നു
- സാഹിത്യകൃതികളിലെ വാക്യ ചിത്രങ്ങൾ വായിച്ച് ആസ്വദിച്ച് വർണ്ണനകൾ ദൃശ്യാക്ഷി വിവരണങ്ങൾ എന്നിവ തയ്യാറാക്കുന്നു
- കഥയിലെ വൈകാരിക മുഹൂർത്തങ്ങൾ ഭാഷാശൈലി കഥാപാത്രങ്ങൾ എന്നിവ സവിശേഷതകൾ കണ്ടെത്തി വിശകലനം ചെയ്യുന്നു
- കഥകളും നോവലുകളും വായിച്ച് കുറിപ്പുകളും ചുരുക്കപ്പത്രിക കളും മറ്റും തയ്യാറാക്കുന്നു
- കഥകൾ ശേഖരിച്ച് ഭാവാത്മകമായി പറഞ്ഞ അവതരിപ്പിക്കുന്നു
- ഗദ്യ പാഠങ്ങളിലെ ആശയങ്ങൾ ഉൾക്കൊണ്ടുകൊണ്ട് ഒഴുക്കോടെയും ഉച്ചാരണശുദ്ധിയോടെയും വായിക്കുന്നു
- കവിയുടെയും പാട്ടുകളുടെയും ആശയം, താളം, ഭാവം എന്നിവ തിരിച്ചറിഞ്ഞ് ഉചിതമായ എണ്ണത്തിൽ ആലപിക്കുന്നത്
- സന്ദർഭങ്ങളിൽ നിന്ന് പദങ്ങളുടെ അർത്ഥം ഉഘാടിച്ച് കണ്ടെത്തുകയും മറ്റു സന്ദർഭങ്ങളിൽ പ്രയോഗിക്കുകയും ചെയ്യുന്നു
- പാഠഭാഗത്തിൽ നിന്നും അനുബന്ധ വായനയിൽ നിന്നും സ്വാംശീകരിച്ച് ആശയങ്ങൾ വ്യത്യസ്ത ആവിഷ്കാര രൂപങ്ങളിൽ(പ്രസംഗം) പ്രകടിപ്പിക്കുന്നു
- ആശയങ്ങൾ വിശകലനം ചെയ്ത് ചർച്ചകളിൽ സ്വന്തം അഭിപ്രായങ്ങൾ പ്രകടിപ്പിക്കുന്നു
- ലേഖനങ്ങളിൽ ഉപയോഗിക്കുന്നതന്റെ ഔചിത്യം കണ്ടെത്തുന്നു
- കവിയുടെ ആശയം, പ്രയോഗഭംഗി, പദ ചേർച്ച എന്നിവ സ്വന്തം കാഴ്ചപ്പാടോടെ വ്യാഖ്യാനിച്ച് ആസ്വദനക്കുറിപ്പ് തയ്യാറാക്കുന്നു
- നാടോടി കഥയും നാടകവും ഉചിതമായ ഭാവം ശബ്ദവിന്യാസം ഒഴുക്ക് എന്നിവ പാലിച്ച് വായിച്ചത്
- കണ്ടതോ കേട്ടതോ ആയ കാര്യങ്ങൾ വായിച്ചറിഞ്ഞ തോ ആയ കാര്യങ്ങൾ യുക്തിപൂർവ്വം വിശകലനം ചെയ്ത് സ്വന്തം അഭിപ്രായം കൂട്ടിച്ചേർത്ത് പറഞ്ഞും എഴുതിയും പ്രകടിപ്പിക്കുന്നു

- കഥാപാത്രങ്ങളുടെ സ്വഭാവം കഥയിലെ സ്ഥാനം മാനസികാവസ്ഥ മറ്റുള്ളവരുടെ ഇടപെടൽ എന്നിവ മനസ്സിലാക്കി കഥാപാത്രനിരൂപണം തയ്യാറാക്കുന്നു
- നാടകങ്ങൾ വായിച്ച് ഉള്ളടക്കം കഥാപാത്രങ്ങൾ സംഭാഷണം പശ്ചാത്തലം എന്നിവ ഉൾക്കൊണ്ടുകൊണ്ട് വേദിയിൽ അഭിനയിക്കുന്നു
- ശ്രദ്ധേയമായ കഥകൾ ലൈബ്രറിയിൽ നിന്ന് എടുത്തു വായിച്ച് അതിലെ കേന്ദ്രാശയം പ്രധാന സംഭവങ്ങൾ മുഹൂർത്തങ്ങൾ എന്നിവ തിരിച്ചറിഞ്ഞ് നാടകമാക്കി എഴുതുന്നു
- പൊതു ചർച്ചയിലൂടെ പൊതു ചർച്ചയിലൂടെ സൂചകങ്ങൾ വികസിപ്പിച്ച സ്വന്തം രചനകൾ മറ്റുള്ളവരുടെ രചനകളും വിലയിരുത്തി അഭിപ്രായം അവതരിപ്പിക്കുന്നു
- നേരിട്ടോ വായിച്ചറിഞ്ഞ കാര്യങ്ങൾ യുക്തിപൂർവ്വം വിശകലനം ചെയ്ത് സ്വന്തം അഭിപ്രായം പറഞ്ഞു എഴുതിയും അവതരിപ്പിക്കുന്നു
- പദങ്ങൾ പ്രയോഗങ്ങൾ, ചൊല്ലുകൾ, ശൈലികൾ എന്നിവയുടെ ആശയവും സവിശേഷതയും മനസ്സിലാക്കി സ്വന്തം രചനകളിലും ഉപയോഗിക്കുന്നു
- കവിയുടെ ആശയം, താളം, ഭാവം എന്നിവ ഉൾക്കൊണ്ട് ഈണത്തിൽ ചൊല്ലി അവതരിപ്പിക്കുന്നു
- ജീവചരിത്രം, ആത്മകഥ, ലേഖനം എന്നീ വിഭാഗങ്ങളിൽപ്പെട്ട പുസ്തകങ്ങൾ വായിച്ച് കുറിപ്പുകൾ, ഉപന്യാസം എന്നിവ തയ്യാറാക്കുന്നു
- കവിതകൾ ഉചിതമായ ഭാവത്തിലും ഈണത്തിലും ആലപിക്കുന്നു
- കവിതകളിലെ ആശയം, ബിംബകല്പന, ചമൽക്കാരഭംഗി, പ്രയോഗ സവിശേഷതകൾ എന്നിവ കണ്ടെത്തി വിശദീകരിക്കുന്നു
- സൂചകങ്ങൾ വികസിപ്പിച്ച സ്വന്തം ആലാപനവും മറ്റുള്ളവരുടെ ആലാപനവും വിലയിരുത്തുന്നു
- കഥകളുടെ രചനാരീതി, സാമൂഹികപ്രസക്തി, വൈവിധ്യം തുടങ്ങിയ സവിശേഷതകൾ പരിഗണിച്ചും സ്വന്തം കാഴ്ചപ്പാടുകൾ ഉൾക്കൊള്ളിച്ചു പറഞ്ഞു എഴുതിയ ആസ്വാദനം അവതരിപ്പിക്കുന്നു
- കഥകൾ ആശയം ഉൾക്കൊണ്ട് ഉചിതമായ ഭാവം, ശബ്ദനിയന്ത്രണം, ട്രൂക്ക്, ഉച്ചാരണശുദ്ധി എന്നിവയോടെ വായിക്കുന്നു
- പദങ്ങൾ, പ്രയോഗങ്ങൾ, ചൊല്ലുകൾ, ശൈലികൾ തുടങ്ങിയവ സന്ദർഭാനുസരണം
- ഉപയോഗിക്കുന്നു
- സ്വന്തം അഭിരുചിക്ക് ഇണങ്ങുന്ന പുസ്തകങ്ങൾ കണ്ടെത്തി വായിച്ച് കുറിപ്പുകൾ തയ്യാറാക്കുന്നു
- വായിച്ച് സർഗാത്മക രചനകൾ വ്യത്യസ്തമായ തരത്തിൽ ആവിഷ്കരിക്കുന്നുകേട്ടതോ വായിച്ചതോ ആയ കാര്യങ്ങൾ യുക്തിപൂർവ്വം വിശകലനം ചെയ്ത് സ്വന്തം അഭിപ്രായങ്ങൾ പറഞ്ഞും എഴുതിയും പ്രകടിപ്പിക്കുന്നു

- നാടൻപാട്ടുകൾ താളത്തോടെ ഭാവാരംഭമായി പാടി അവതരിപ്പിക്കുകയും ഹൃദിസ്ഥമാക്കുകയും ചെയ്യുന്നു
- സൂചകങ്ങൾ വികസിപ്പിച്ച സ്വന്തം രചനകളും മറ്റുള്ളവരുടെ രചനകളും വിലയിരുത്തുന്നു
- ഗദ്യ പാഠങ്ങളിലെ ആശയങ്ങൾ ഉൾക്കൊണ്ട് ഒഴുക്കോടെ ഉച്ചാരണശുദ്ധിയോടെ കൂടി വായിക്കുന്നു
- സന്ദർഭത്തിനനുസരിച്ച് ശേഖരണം നടത്തി പതിപ്പുകൾ, പത്രികകൾ എന്നിവ തയ്യാറാക്കുന്നു
- കഥാപാത്രങ്ങളുടെ മാനസിക അവസ്ഥയും കഥയിലെ സ്ഥാനവും കണ്ടെത്തി പറഞ്ഞു എഴുതിയും കഥാപാത്രനിരൂപണം നടത്തുന്നു
- പദങ്ങൾ പ്രയോഗങ്ങൾ ചൊല്ലുകൾ ശൈലികൾ തുടങ്ങിയവ ഉൾപ്പെടുത്തി സന്ദർഭാനുസരണം സംസാരിക്കുകയും സ്വന്തം രചനകളിൽ അവ ഔചിത്യപൂർവ്വം ഉപയോഗിക്കുകയും ചെയ്യുന്നു
- കവിതയുടെ ആശയം, ഭാവം എന്നിവ ഉൾക്കൊണ്ട് ഹൃദിസ്ഥമാക്കി ഉചിതമായ ഇടങ്ങളിൽ ആലപിക്കുന്നു
- ഗദ്യഭാഗങ്ങൾ ആശയ വ്യക്തതയോടെയും ഉച്ചാരണശുദ്ധിയോടെയും ഒഴുക്കോടെയും വായിച്ച് അവതരിപ്പിക്കുന്നു
- ആശയങ്ങൾ വിശകലനം ചെയ്ത് സ്വന്തം അഭിപ്രായങ്ങൾ യുക്തിയോടെ എഴുതി അവതരിപ്പിക്കുന്നു
- നോവൽ ഭാഗം വായിച്ച സംഭവങ്ങളുടെ വൈകാരികത ഉൾക്കൊണ്ട് കുറിപ്പ് തയ്യാറാക്കുന്നു
- വായിച്ച് രചനകളിലെ ആശയം സംഭവം എന്നിവ മനസ്സിലാക്കി വ്യത്യസ്ത രൂപങ്ങളിൽ രചിക്കുകയും അവതരിപ്പിക്കുകയും ചെയ്യുന്നു
- പുസ്തകങ്ങൾ ആനുകാലികങ്ങൾ എന്നിവയിൽ നിന്ന് ശേഖരിച്ച വിവരങ്ങൾ ക്രോഡീകരിച്ച് പ്രശ്നോത്തരി ഉള്ള ചോദ്യാവലി ലഘുകുറിപ്പ് എന്നിവ തയ്യാറാക്കുന്നുകഥ വായിച്ച് ആസ്വദിക്കുന്നു

1. കഥാ രചനയുടെ വ്യത്യസ്ത തലങ്ങൾ മനസ്സിലാക്കുന്നു.
2. ആസ്വാദനക്കുറിപ്പുകൾ തയ്യാറാക്കുന്നു
3. കഥാ രചന ശേഷി നേടുന്നു.
4. കഥ ആശയം ഉൾക്കൊണ്ട് ഭാവാരംഭമായി വായിക്കുന്നു.
5. വായിച്ച കഥകൾ വ്യത്യസ്ത വ്യവഹാര രൂപത്തിൽ അവതരിപ്പിക്കുന്നു
6. സ്വാതന്ത്ര്യ സമര സേനാനികളെ പരിചയപ്പെടുന്നു.
7. രാജ്യ സ്നേഹം വളരുന്നു.
8. ജീവചരിത്രക്കുറിപ്പുകൾ തയ്യാറാക്കുന്നു.
9. കവിതകൾക്ക് ഇടം കണ്ടെത്താൻ കഴിവു നേടുന്നു
10. കവിത ഭാവം ഉൾക്കൊണ്ട് അവതരിപ്പിക്കാൻ കഴിവു നേടുന്നു.

11. കവിയുടെ ആശയം പ്രയോഗഭംഗി, ചമൽക്കാരം എന്നിവ ഉൾക്കൊണ്ടു കൊണ്ട് ആസ്വദിക്കുകയും വിശദീകരിക്കുകയും ചെയ്യുന്നു.
12. മാതൃഭാഷയുടെ പ്രാധാന്യം മനസ്സിലാക്കുന്നു.
13. കത്ത്, വിവരണം , പോസ്റ്റർ എന്നീ വ്യവഹാര രൂപങ്ങൾ തയ്യാറാക്കാൻ പഠിക്കുന്നു.
14. പഴഞ്ചൊല്ലുകൾ പഠിക്കുന്നു

# Grade 06

## ENGLISH

### Listening and Speaking

**Listening at this stage is crucial so that children listen carefully to views put forward, reflect on them, and respond accordingly. They listen to a range of texts with comprehension. From this stage onwards listening to radio, film, television and other media occupy a major space. Appreciation of non-verbal clues are also developed. While speaking children express themselves with confidence that reflects a sense of persuasiveness and interpretation.**

#### Learning Outcomes

The children will be able to:

1. Understand and answer a variety of questions on a given passage for aural/written comprehension.
2. Comprehend issues/topics raised in spoken texts(public address, guest speaker, televised interview, social media/ internet videos) and ask for clarification or elaboration of ideas.
3. Participate in group discussions as leader or facilitator, enhancing the levels of discussion by asking probing/reflective questions.
4. Use class-level appropriate vocabulary to express their point of view.
5. Apply their understanding from the use of multi-media to make presentations adding perspective to texts/issues.(The use of visual aids is accompanied by a commentary citing sources of information or diverse points of view)
6. Develop a sense of confidence and self control while making presentations or challenging a stated opinion.
7. Evaluate and respond to opposing points of view logically using appropriate language and physical gestures.
8. Develop the ability to analyze, interpret and evaluate the use of language in different contexts(newspapers, television, billboard and advertising campaigns).
9. Adapt speech to a variety of contexts and tasks.
10. Use custom language as appropriate to the purpose: to persuade, explain/provide information, or express an opinion.
11. Include multimedia components(eg: graphics, images, music, sound) and visual displays in presentations.
12. Interpret information presented in diverse media and formats(eg: visually, quantitatively, orally) and explain how it contributes to a topic, text or issue under study.

### Reading

**Children develop extensive and intensive reading skills that involve a variety of texts. They discuss and express their views based on their reading via their speaking/ writing.**

#### Learning Outcomes

The children will be able to:

1. Understand the text, draw conclusions and make inferences.
2. Comprehend the central idea of a text and how it is conveyed through particular details including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic.
3. Understand and appreciate the narrative and poetic structures to comprehend and predict outcomes.
4. Identify the salient points in the text as distinct from personal opinions or judgements.
5. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings.
6. Read and comprehend literature, including stories, dramas, poems, travelogs, autobiographies, reports, speeches, articles, features etc(graded reading).

## Writing

**Children write independently following the process approach to writing. They write with a sense of audience and follow the rules of the mechanics of writing.**

### Learning Outcomes

The children will be able to:

1. Write real or imagined experiences or events using relevant descriptive details and well structured sentences and sequence.
2. Write arguments to support ideas with clear reasons and relevant evidence.
3. Produce clear and coherent writing keeping in view the organization and style that are appropriate to task, purpose and audience.
4. Collect relevant information from multiple print and digital sources:collates the data.
5. Use precise and descriptive vocabulary to create tone and voice and varied sentence structure.
6. Follow process approach to writing by planning, recising, editing, rewriting.
7. Write at least three paragraphs of about 200 words at a more advanced level on any given topic.
8. Write narratives that recount a well-elaborated event or short sequence of events: include details to describe actions, thoughts and feelings.
9. Organize and structure meaningful sentences in a sequential manner.
10. Make correct use of linkers such as ‘firstly’, ‘then’, ‘finally’, etc to link sentences to indicate passage of time and provide a sense of closure.
11. Draw from personal experiences or real life situations
12. Demonstrate the ability to use words and phrases to the grade appropriate level, including those that convey emotions, actions etc.
13. Write basic notices/ messages/ letters.

## Grammar and Vocabulary in Context

**Children use context to understand and develop vocabulary and grammar. They use basic grammar appropriately while speaking and writing.**

### Learning Outcomes

The children will be able to:

1. Use English according to the basic conventions of English grammar and usage when writing or speaking.
2. Use pronouns in the proper case and reflexive pronouns appropriately.
3. Recognize correct and incorrect/inappropriate shifts in pronoun number and person.

4. Follow the basic conventions of English language when writing, speaking, reading,, or listening using varied sentence patterns for meaning, reader/listener interest, and style.
5. Use context as a clue to the meaning of a word or phrase.
6. Use common, grade-appropriate affixes and roots as clues to the meaning of a word.
7. Consult reference materials, both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or part of speech.
8. Interpret figures of speech in context.
9. Use subject-verb agreement with intervening phrases and clauses.
10. Learn the use of and the difference between transitive and intransitive verbs.
11. Use pronoun-antecedent agreement to include indefinite pronouns
12. Follow consistent tense inflections across paragraphs.
13. Use the correct spelling for frequently used words.
14. Form and use perfect verb tenses to convey time, sequence, state and condition.
15. Recognize correct and inappropriate shifts in verb tense.

# Grade 06

## Hindi

### कक्षा VI

#### थीम1: सुनना और बोलना

छठी कक्षा तक आते-आते बच्चे भाषा के मौखिक रूप को सुनकर भली प्रकार समझने लगते हैं। अभिव्यक्ति की क्षमता भी मुखरित होने लगती है। आवश्यकता पडने पर **स्पष्टीकरण मांगते हैं** और विचार व्यक्त करते हैं। चुनौती दिए जाने पर आत्मविश्वास, उचित हाव- भाव एवं **तर्कपूर्ण ढंग से अपनी बात कहते हैं**। अपनी जानकारी बोलकर साझा करते हैं। अवसरानुकूल औपचारिक व अनौपचारिक भाषा का प्रयोग करते हैं तथा बोलने के शिष्टाचार का पालन करते हैं।

#### अधिगम उपलब्धियाँ (Learning outcomes)

- कक्षा, प्रातः सभा आदि में की गई उद्घोषणा पर प्रसारित चर्चा ,संगोष्ठी आदि तथा सोशल मीडिया और इंटरनेट की दृश्य-श्रव्य सामग्री को सुनकर उसका अर्थ ग्रहण कर सकेंगे और आवश्यकता अनुरूप अपनी प्रतिक्रिया प्रकट कर सकेंगे । अपने विचारों को विस्तार दे सकेंगे।
- कथन में निहित **व्यंग्य, हास्य-विनोद आदि भावों को समझ सकेंगे।**
- पढी, सुनी या देखी बातों जैसे- सामाजिक घटनाओं, कार्यक्रमों, मुद्दों, सामाजिक सरोकारों आदि **बेझिझक चर्चा कर सकेंगे और प्रश्न कर सकेंगे।**
- प्रश्नों को समझ कर उनके अनुरूप उत्तर दे सकेंगे।
- विविध कलाओं , जैसे - हस्तकला , वास्तुकला, नृत्य कला आदि में प्रयुक्त भाषा समझ सकेंगे।
- कहानी , घटना , प्रसंग , कविता, संस्मरण आदि हावभाव के साथ सुना सकेंगे।
- अपनी आयु अनुरूप शब्दों का प्रयोग करते हुए कहानी को अपनी कल्पना से आगे बढ़ा सकेंगे।
- अपनी आयु के अनुरूप कुछ विषयों जैसे- जब मैंने साइकिल चलाना सीखा, पहली बार शरबत बनाया, मंच पर गया आदि पर **आशुभाषण प्रस्तुत कर सकेंगे।**
- लिंग/वचन को ध्यान में रखकर अपनी बात उचित उच्चारण, बल एवं अनुतान के साथ कह सकेंगे।
- अवसर के अनुकूल औपचारिक एवं उपयुक्त भाषा प्रयोग कर सकेंगे।
- अपने विचारों को आत्मविश्वास , सहजता एवं प्रवाह के साथ बोलकर प्रकट कर सकेंगे।

- विभिन्न स्रोतों से नए शब्दों को जानने का प्रयास करेंगे।
- मल्टी-मीडिया (ग्राफिक्स, तस्वीरें, संगीत, ध्वनि आदि) का प्रयोग करते समय दृश्य - सामग्री प्रस्तुत कर सकेंगे।
- भाषा खेलों में रुचिपूर्वक भाग लेंगे, जैसे- वर्ग पहेली, शब्द-सीढ़ी आदि।

### थीम 2: पढ़ना एवं लिखना (पठन एवं लेखन कौशल)

बच्चे अपने स्तर के अनुकूल पाठ्य- सामग्री को समझते हुए पढ़ते हैं। मुद्रित और डिजिटल मीडिया की सामग्री को पढ़ - देखकर ग्रहण करते हैं। सटीक शब्दों, मुहावरों, पदबंधों आदि का प्रयोग करते हुए विभिन्न अवसरों के लिए अलग-अलग विधाओं में लिखित अभिव्यक्ति करते हैं।

#### अधिगम उपलब्धियाँ (Learning outcomes)

मुखर वाचन की कुशलताओं - सही उच्चारण, बलाघात, अनुतान, स्वरगति में उत्तरोत्तर कुशलता में वृद्धि कर सकेंगे। अर्थ बोध एवं गति के साथ मौन पठन कर सकेंगे।

पाठ्य सामग्री को पढ़कर अर्थ-ग्रहण, भाव ग्रहण कर सकेंगे। समसामयिक संदर्भों में अर्थ समझ सकेंगे। अखबार, पुस्तकें, पत्रिकाओं आदि में सामाजिक घटनाओं, मुद्दों, सरोकारों को पढ़ और समझ सकेंगे और उन पर अपनी बेझिझक राय प्रस्तुत कर सकेंगे।

- कक्षा में विभिन्न प्रश्नों को पढ़कर समझ सकेंगे और उत्तर लिख सकेंगे।
- काव्य - रचना के विभिन्न अर्थों को पहचान सकेंगे और उसमें अपनी समझ के अनुसार अपनी राय भी जोड़ सकेंगे।
- अपने विचारों से अलग पाठ्य - सामग्री के मूलभूत तथ्यों को पहचान सकेंगे।
- विभिन्न शब्दों, पदबंधों आदि को सामाजिक संदर्भों के अनुसार समझ सकेंगे और अपने लेखन में उसका प्रयोग कर सकेंगे।
- प्रभावशाली, तार्किक और उपयुक्त भाषा - शैली में अपनी बात/ विचार लिख सकेंगे।
- विभिन्न प्रिंट और डिजिटल माध्यमों से जानकारी प्राप्त करके उसका उपयोग कर सकेंगे।
- सटीक शब्दों का चयन करके विद्यालय की पत्रिका के लिए कहानी / कविता लिख सकेंगे।
- कहानी को नाटक रूप में लिखकर प्रस्तुत कर सकेंगे।
- पाठ्य सामग्री को पढ़कर समझ सकेंगे और प्रश्नों के उत्तर लिख सकेंगे।

### थीम 3: व्याकरण और भाषा

छठी कक्षा के बच्चे भाषा के मूल रूप को समझते हैं और भाषिक संरचना से परिचित हैं। वे व्यवहार में व्याकरण सम्मत भाषा का प्रयोग करते हैं। संदर्भ में व्यावहारिक व्याकरण का उपयुक्त प्रयोग करते हैं।

#### अधिगम उपलब्धियाँ (Learning outcomes):

- हिंदी भाषा के शब्दों (तत्सम और तद्भव) रूपों को समझ सकेंगे।

- संज्ञा के तीन भेद - **व्यक्तिवाचक संज्ञा** , जातिवाचक संज्ञा और **भाववाचक** संज्ञा को पहचान सकेंगे और
- भाववाचक संज्ञा का निर्माण कर सकेंगे ।
- सर्वनाम के भेदों की पहचान और उसका सही प्रयोग कर सकेंगे । भेद - पुरुषवाचक सर्वनाम, निश्चयवाचक, अनिश्चयवाचक प्रश्नवाचक , **संबंधवाचक, निजवाचक** ।
- **विशेषण** - विशेषण के चार भेद - **गुणवाचक विशेषण** , **परिमाणवाचक विशेषण** , **संख्यावाचक विशेषण**, **सार्वनामिक विशेषण समझ सकेंगे**। अन्य पदों से विशेषण बना सकेंगे।
- क्रिया - कर्म के आधार पर दो भेद - अकर्मक क्रिया और सकर्मक क्रिया की पहचान कर सकेंगे।
- व्यावहारिक भाषा में उचित लिंग और वचन का प्रयोग कर सकेंगे।
- **काल**-काल के तीन भेद - भूतकाल, वर्तमानकाल और भविष्यकाल का समुचित प्रयोग कर सकेंगे।
- कारक - चिह्नों का सही प्रयोग कर सकेंगे।
  - (क) विराम - चिह्नों की पहचान और उनका सही प्रयोग कर सकेंगे
  - (ख) 'की' और 'कि' तथा 'रि' और 'ऋ' के अंतर आदि की पहचान कर सकेंगे। अनुस्वार, अनुनासिक और 'र' के विभिन्न रूपों को ठीक से पहचान कर सही प्रयोग कर सकेंगे।
- **शब्द भंडार** - शब्दों के विभिन्न रूपों को समझ सकेंगे, विलोम, पर्यायवाची, अनेक के लिए एक शब्द , समरूपी
- भिन्नार्थक शब्द, अनेकार्थी शब्दों की समझ बना सकेंगे तथा प्रयोग कर सकेंगे।
- मुहावरों को वाक्यों /भाषा में समझ कर प्रयुक्त कर सकेंगे।
- **अपठित गद्यांश व काव्यांश पढ़कर समझ सकेंगे और अपनी भाषा में संक्षिप्त उत्तर लिख सकेंगे।**
- पत्र - लेखन का प्रारूप समझ कर पत्र लिख सकेंगे।
- निबंध - लेखन द्वारा अपने विचारों को अभिव्यक्त कर सकेंगे।
- चित्र देखकर अपनी कल्पनाशीलता और भाषा का प्रदर्शन करते हुए विभिन्न विषयों पर अभिव्यक्ति कर सकेंगे।

# Grade 06

## Mathematics

### Theme 01: Number System

The idea about numbers that children built-up up to class V is of representing the number of items/objects in a collection. But in class VI children have to initiate the learning of numbers that are abstract which starts with negative numbers and extension of whole numbers to integers. This is the stage where the collection of integers is seen as a system that satisfy certain properties and have correlated structure.

A preparation of the extension of fractions and integers to rational numbers also takes place in this class. A gradual move helps children in developing these concepts. Let children observe various patterns while applying operations on integers and fractions (common and decimals). Generalization of these patterns will lead to many properties of integers and decimal fractions.

The multiples and factors of numbers can be obtained by just playing with numbers. Therefore, it is expected that children will learn about these concepts through a play way method. Children will be enabled to explore and develop their own rules for finding HCF and LCM of two or more numbers.

Sets are important way of expressing groups of numbers and other objects. In this class a preliminary idea of language and terminology related to sets is to be introduced. This will also help children in looking into various collection of numbers as sets satisfying certain properties. The knowledge about sets will be further strengthened in higher classes too.

#### Learning Outcomes:

Children will be able to:

1. Describe place and face values of a digit in a large number;
2. Create situations around them in which they find negative numbers;
  1. Through situations like money transactions, measuring of height, budget, etc. child uses larger numbers and thus appreciates their use;
  2. Reduces fractions involving larger numbers to simplest (lowest) forms;
2. Identify a situation for a given fraction (like proper, improper, equivalent, etc.);
3. Construct examples through which they demonstrate the addition and subtraction of integers;
4. Create daily life situations where opposites are involved and represent such quantities by positive and negative numbers;
5. Make their own strategies of ordering, adding and subtracting integers;
6. Use divisibility rules to find factors of a number;
7. Demonstrate ways of finding HCF and LCM of two numbers;
8. Devise strategies to identify appropriate situations to use the concepts of HCF and LCM.

## Theme 02: Ratio and Proportion

There are many situations when two quantities are compared by using properties of division of numbers, like heights of two objects as one is half of other or double of other. Using such contexts the terminologies related to ratios need to be brought in home for children. The theme in this class mainly focuses on the basic idea of ratios and proportions which ultimately lead to the major applications of arithmetic in our daily life called commercial 'mathematics'. Percentage, unitary method, simple and compound interests, time and speed, work and time and profit and loss will be focused on in classes VII and VIII. Hence building a strong foundation in Class VI about ratio and proportion is very important.

### **Learning Outcomes:**

Children will be able to:

1. Understand how the comparison of two quantities through ratio is different from comparisons done earlier;
2. Explain the meaning of proportion;
3. Know how ratio and proportion are related to unitary method;
4. Solve problems related to daily life using unitary method;
5. Try to construct examples that require the concept of ratio
6. Solve problems related to speed, distance and time.

## Theme 03: Algebra

Children have idea of using symbols/letter for numbers from very early classes. Even in class I children use to solve problem like  $5+ = 7$ ,  $+ = 9$  etc. and in class V they learnt that perimeter of a square is  $4x$  where  $x$  is it's side. Thus the introduction of this topic should be made through these examples which children are already acquainted with and avoid directly bring the abstract idea of variable, unknowns and constants. The aim of this theme in this class is that children will be enabled to understand algebra as generalization patterns on numbers in term of using a letter of any number. Ultimately children learn that algebra is generalization of arithmetic and hence we use all rules as we have in number operations.

### **Learning Outcomes:**

Children will be able to:

1. Describe variable and unknown through patterns and through appropriate word problems and generalize (example  $5 \times 1 = 5$ , etc.);
2. Generate patterns with more examples;
3. Understand unknowns through examples with simple contexts (single operations);
4. Define terminology associated with algebra like literal numbers, terms, expressions, factor, coefficient, polynomials, degree, like and unlike terms;
5. Frame algebraic expressions;
6. Evaluate value of algebraic expressions by substituting a number for the variable.

## Theme 04: Geometry

Children in this class should be now in Van Heile's level 2 of geometry learning i.e. Properties are perceived at Level 2, but they are isolated and unrelated. At Level 2 children would say "I know it's a rectangle because it is closed; it has 4 sides and 4 right angles; opposite sides are parallel; opposite sides are congruent; diagonals bisect each other; adjacent sides are perpendicular; etc...." All the properties known are listed since the student doesn't perceive any relationship between the properties, e.g., one implies the other. There is no knowledge of necessary and sufficient conditions. Like wise children develop their understanding about properties of other shapes and figure in this class.

### **Learning Outcomes:**

Children will be able to:

1. Differentiate between different geometrical figures on the basis of their observable properties;
2. Classify angle into different types on the basis of their measurement;
3. Understand the difference between different types of triangles and the basis on which they are classified;
4. Classify quadrilaterals as trapezium, parallelogram, rectangle, square, rhombus;
5. Classify angles in different groups/types;
6. Draw different types of triangles and quadrilaterals;
7. Attempt to prepare solids using their nets;
8. Observe the objects and tries to make strategies to decide about the symmetry of the object;
9. Observe the reflection of objects in mirror and then tries to formulate rules about the symmetry of the object;
10. Try to see the logic behind drawing an angle of certain measure using geometrical properties;
11. Device ways to draw related angles after learning to draw an angle of certain measure;
12. Identify 3-d shapes and their parts;
13. Identify 2-d symmetrical objects;
14. Understand reflection symmetry;
15. Construct angles of different measures using compasses;
16. Draw perpendicular line segments.

## Theme 05: Mensuration

In the previous three classes children were learning the measurement of various quantities like length, mass, temperature and time. Mathematically proficient students communicate precisely by engaging in discussion about their reasoning using appropriate mathematical language. The terms students should learn to use with

increasing precision are area, surface area, volume, decomposing, edges, dimensions, net, vertices, face, base, height, trapezoid, isosceles, right triangle, quadrilateral, rectangles, squares, parallelograms, trapezoids, rhombi, kites, right rectangular prism, and diagonal. Children continue to strengthen their understanding that area is the number of squares needed to cover a plane figure. They will also know the formulas for rectangles and triangles. “Knowing the formula” does not mean memorization of the formula but to have an understanding of why the formula works and how the formula relates to the measure (area) and the figure. All children should be enabled to develop this understanding.

**Learning Outcomes:**

Children will be able to:

1. Describe the concept of perimeter of various shapes;
2. Demonstrate the idea of area and volume of shapes;
3. Calculate the perimeter of different shapes given, she tries to formulate the perimeter of shapes like rectangle, square;
4. Calculate the areas of rectangle and square by dividing them into appropriate smaller units. She tries to think of such small units;
5. Use conversion of units of mass, money, time, and capacity in different daily life situations.

## Theme 06: Data Handling

This theme focusses on building on and reinforcing children’s understanding of numbers, they begin to develop their ability to think statistically. Children recognize that a data distribution may not have a definite centre and that different ways to measure centre yield different values. The median measures centre in the sense that it is roughly the middle value. The mean measures centre in the sense that it is the value that each data point would take on if the total of the data values were redistributed equally, and also in the sense that it is a balance point.

**Learning Outcomes:**

Children will be able to:

1. Understand the use of organizing data;
2. Represent data through pictograph, bar graph;
3. Identify patterns in numbers and shapes;
4. Identify daily life situations in which the information is required to be properly arranged;
5. Explore different ways to organize and represent data;
6. Appreciate the need for finding a representative value for given data;
7. Find mean and median of data having not more than ten observations.

# Grade 06

## HISTORY

### Theme 01: The River Valley Civilizations

'River Valley Civilizations' aims at enabling children to understand how our present-day society has evolved. It will help them understand the reasons for development of the earliest societies near rivers. Children will be aware of and appreciate the rich and flourishing civilization on the basis of historical evidences. It will further help to develop in them a world historical perspective of the contribution made by various cultures to the heritage of mankind.

#### **Learning outcomes:**

Children will be able to:

1. Identify and locate the sites of major river valley civilizations on an outline map of the world;
2. Discuss and understand with reason the development of early civilizations near river beds;
3. Question, discuss and appreciate the sources to know these civilizations;
4. Compare the society then (in the past) and now;
5. Discuss, debate and appreciate the development in early civilizations;
6. Draw a comparative analysis between Indus valley civilization and Mesopotamian, Egyptian and Chinese civilization;
7. Appreciate the contribution of these civilizations in today's world.

### Theme 02: The Vedic Civilization

The aim of the theme 'Vedic Civilization' is to acquaint and inform children of India's glorious past dating back to 3500 years ago. They will understand and appreciate how ancient literatures like Vedas and Epics provide an insight into our past and the genesis of our present-day society.

#### **Learning outcomes:**

Children will be able to:

1. Define the term 'Vedic' and list the various literature related to it;
2. Summarize the lifestyle of the Vedic period by relating it to the epics;
3. Discuss and identify the differences and similarities between the early and later Vedic period;
4. Trace the changing position of woman in early and later Vedic society;

5. Analyse and appreciate the rich cultural heritage of India in terms of values, beliefs and traditions.

### **Theme 03: Mahavira & Buddha - Great Preachers**

The theme on ‘Mahavira and Buddha’ will enable children to understand and appreciate the teachings of Gautam Buddha and Mahavira. Use of interesting pedagogy can help them compare and find the similarities and dissimilarities between the two ideologies. It will also develop their understanding on the importance of Ahimsa and tolerance which will in turn help them become responsible citizens.

#### **Learning outcomes:**

Children will be able to:

1. Discuss the social conditions that led to the rise of new religions ideology – Buddhism and Jainism;
2. Explain the teachings and ideologies of the two great preachers;
3. Compose and analyse the reasons that led to the spread and decline of Jainism and Buddhism;
4. Critically analyse the importance of Ahimsa and tolerance in today’s society.

### **Theme 04: Rise of Kingdoms & Republicans**

‘Rise of Kingdoms and Republicans’ will enable children to understand the way men became rulers in the past and their ambition for expansion of their empires resulted in wars and invasions. This will help them understand how our present day social and political life has evolved through the kingdoms of the past.

#### **Learning outcomes:**

Children will be able to:

1. Identify and locate Janapadas and Mahajanapadas on an outline map of India;
2. Explain the terms “Janapadas” and “Mahajanapadas” and list the major powerful kingdoms;
3. Draw a timeline, mark the rise of Magadha and list the rulers who ruled it;
4. Question and give reasons for the Mahajanapada being so powerful;
5. Reflect critically on the invasion of Alexander.

### **Theme 05: The Mauryan Empire**

The ‘Mauryan Empire’ with special mention of Emperor Ashoka who gave up war provides an insight into the glorious traditions of non-violence and a welfare state. The children will get to know about ‘Chanakya’ a famous Indian thinker and appreciate his ideas in ‘Arthashashtra’. It will enable children to understand the relationship between the concept of Ashoka’s welfare state and present-day society.

**Learning outcomes:**

Children will be able to:

1. Infer and illustrate the features of the Mauryan empire through the sources of Indica and Arthashastra and list the notable rulers;
2. Discuss and analyze the features of Mauryan administration;
3. Trace the ascent and extent of the Ashoka empire and outline the causes and effects of the Kalinga war;
4. Analyze the effects of Ashoka's 'dhamma' and reflect on the relevance of the teachings of dhamma in present day society;
5. Appreciate the public welfare activities of Ashoka.

**Theme 06: The Golden Age – Gupta Empire**

'The Golden Age - Gupta Empire' will provide children an insight into the glorious past of India owing to advancements in trade, economy, literature, astronomy, Ayurveda, and mathematics. Interesting pedagogies will help children understand the reasons for this period of study to be known as the Golden Age in the History of India and they will learn to appreciate India's rich heritage.

**Learning outcomes:**

Children will be able to:

1. Draw the extent of Gupta empire on an outline map of India;
2. Discuss and analyze the sources to know about Gupta rulers;
3. Identify and describe the important achievements of the Gupta rulers  
-Chandragupta I & ii and Samudragupta;
4. Evaluate and appreciate the achievements during the Gupta period to summarize the Golden Age of India.

# Grade 06

## CIVICS

### Theme 01: Rural Local Self Government

The theme 'Rural Local Self Government' aims at children developing an understanding of the main features and functions of the Panchayati Raj System and other local bodies in India. Children will be able to understand the functioning of the three tiers of the Panchayati Raj System.

#### **Learning outcomes:**

Children will be able to:

1. Describe the rural local self -government (Panchayati raj system);
2. Explain the features and functions of local government at the village, block and district levels;
3. Appreciate the role played by the local bodies;
4. Initiate responsibilities to help local bodies.

### Theme 02: Urban Local Self Government

The theme 'Urban Local Self Government' aims at providing information and developing children's understanding of the composition and functions of Municipal Corporations. Transactional processes will help children in taking up responsibilities and solving common problems in their surroundings. These will also enable them to be proactive citizens who will give back to society through an understanding of their duties.

#### **Learning outcomes:**

Children will be able to:

1. Explain the term 'metropolitan' and state the names of four major cities;
2. Locate and identify metropolitan cities on an outline map of India;
3. Describe the functioning of municipal corporations;
4. Demonstrate the ability to take initiatives and responsibility in solving community problems such as sewage, traffic jam, pollution, cleanliness;
5. Create simple awareness programs in the vicinity on public welfare issues.

# Grade 06

## GEOGRAPHY

### Theme 01: Representation of Geographical Features

Maps are the basic tools of Geography. In this theme children will learn to identify the different types of maps based on scale and also learn about representation of scale, the use of symbols and directions on a map through various methods. The theme would also enable children to understand the significance of diagrammatic representation of geographical features.

#### **Learning outcomes:**

Children will be able to:

1. Identify the difference between a map, sketch, plan and globe;
2. Interpret maps on the basis of scale i.e. large scale, small scale;
3. List the elements of a map;
4. Identify directions and the eight cardinal points;
5. Know uses of scales and symbols for measurement on a map;
6. Represent geographical features through diagrams.

### Theme 02: Landforms

Landforms are natural features of the earth surface. In this theme children will be introduced to and develop an understanding about the forces responsible for the formation of mountains and valleys, plateaus and plains on the earth. Description and spatial distribution of landforms will enable children to locate the same on the world map. Activities such as map based quizzes or group work in the classroom will enhance cooperative learning.

#### **Learning outcomes:**

Children will be able to:

1. Identify different types of landforms in their immediate surroundings and on visuals;
2. Locate important mountain ranges on the world map;
3. Differentiate between processes of formation of Fold mountains and Block mountains;
4. Discuss the process of formation of Volcanic mountains and locate important mountains on the world map;
5. Appreciate the importance of mountains in our life;
6. Compare and describe the formation and characteristics of Valleys and Plateaus;
7. Discuss the effects of geography on the history of our country;

8. Understand how landforms affect the lives of people.

### **Theme 03: Water Bodies**

About three fourths of the earth's surface is covered by water. The purpose of this theme is to introduce and make children aware about the various types of water bodies such as seas, rivers, lakes and their spatial distribution in the world. Activities related to location of water bodies on the world map will enhance mapping skills among children.

Discussion related to water pollution will enable children to appreciate and understand the linkages between local and global issues.

#### **Learning outcomes:**

Children will be able to:

1. Locate oceans, important seas, rivers and lakes, on the world map and in the atlas;
2. Describe importance of seas, rivers, lakes for development of any area;
3. Understand different water bodies and how they relate to river valley civilizations and sea voyages in history;
4. Discuss problems related to water pollution.

### **Theme 04: Agriculture**

Agriculture is one of the major economic activities in the world. The aim of this theme is to make children aware and understand about various farming practices in the world and relate them to the development of the region. They will also be able to identify various crops, the geographical factors responsible for their growth and distribution of major crops in the world.

#### **Learning outcomes:**

Children will be able to:

1. Recognise different types of agricultural practices in the world;
2. Locate major crop regions of the world.
3. Differentiate between food and cash crops;
4. Compare modern methods of farming with the traditional ones;
5. Relate agricultural development to the economy of a country;
6. Discuss agriculture in light of their own country – a land of farmers;
7. Discuss how the green revolution has helped in agricultural development.

### **Theme 05: Minerals**

The theme aims at providing children the knowledge and developing their understanding about minerals and ores and their distribution in the world. The theme will also create awareness in children about the need to conserve minerals.

#### **Learning outcomes:**

Children will be able to:

1. Differentiate between metallic and non-metallic minerals;
2. Describe the importance of minerals in daily life;
3. Locate important minerals on the world map.
4. Discuss the different types of mining;
5. Appreciate the need to conserve mineral resources.

## **Theme 06: Study of Continents: North America and South America**

**This theme is an introduction to the study of the Continents of the world which begins with the study of North America and South America. Children will be provided a broad overview of the two continents. They will also get an opportunity to do a case study from each continent.**

### **Learning outcomes:**

Children will be able to:

1. Locate North America and South America on the world map and in the Atlas;
2. Identify and mark the different countries in North America and South America on their respective maps;
3. Locate and identify the physical features of North America and South America on the map;
4. Compare the life in lumbering (Canada) with the life in the Amazon basin;
5. Understand how the geography of a place affects the life of people (through case studies).

# Grade 06

## PHYSICS

### Theme 01: Matter

Objects that take shape and have mass are called matter. A block of wood, milk and air are all made of matter. Matter is made up of tiny particles called atoms and molecules that cannot be seen by the human eye as they are very small. Matters exists in form of solid, liquid or gas. A solid has a certain size and shape, like a block of wood. A liquid, like water, has a size but does not have a definite shape. It takes the shape of the container it is put in. A gas, like air, is a form of matter that has no definite shape or size.

#### **Learning Outcomes:**

Children will be able to:

1. Define matter;
2. Describe what matter is made of;
3. List the distinguishing properties of solid, liquid and gas;
4. Classify different objects in terms of solid, liquid and gas.

### Theme 02: Physical Quantities and Measurement

Whenever we make a measurement, we require a number which answers the 'how' part of it and a unit which tells us that we are talking about. The unit that is used for a physical quantity is universally accepted and used so that science is communicated and understood all over the world, without any ambiguities. Length, mass, time and temperature are some of the physical quantities that are discussed in detail. They have their own units and symbols for representation. Different devices are required to make measurements of these quantities. How to use a device properly for measurement is an important aspect of learning physics. Area is an example of a physical quantity that can be expressed in terms of a product of two measurements in length. Children learn to develop skills of converting the magnitude of a physical quantity from one unit to its other related unit.

#### **Learning outcomes:**

Children will be able to:

1. Define length, mass and time;
2. Express length, mass, time, temperature and area in proper units with proper symbols;
3. Measure length of objects using a ruler and a measuring tape;
4. Measure mass of an object using a beam balance and an electronic balance;
5. Measure time using a clock, a watch and a stop-watch;

6. Relate temperature of an object with its hotness or coldness;
7. Measure temperature of a person using a clinical thermometer;
8. Measure temperature of an object using a laboratory thermometer;
9. Measure area of a regular object using a graph paper;
10. Convert a physical quantity from one unit into other related units.

## Theme 03: Force

This theme will enable children to understand the terms 'Force' and 'Friction'. The push or pull of an object is called Force. A force can cause a stationary object to move and can change the direction of a moving object. When an inflated football is pressed from all sides its shape changes. When a ball is rolled on a floor, it stops after some time. Children will understand why this happens because the force acting between the surface of the ball and the floor slows down the ball. This force is called Friction. Friction can be static, sliding or rolling. There are situations where friction is advantageous and situations where it is disadvantageous.

### **Learning outcomes:**

Children will be able to:

1. Define force;
2. Explain that a force can change the state of motion;
3. Explain that a force can change the shape of an object;
4. Describe force of friction with examples from daily life;
5. Describe situations where static/ sliding / rolling frictions are in play;
6. Explain advantages and disadvantages of force of friction in daily life situations.

## Theme 04: Energy

The ability to do work is called Energy. Machines help us to do work. For example, a bottle opener is a machine. A needle, a doorknob are also machines. Some machines are more complex than others. A simple machine changes the direction or the magnitude of force applied. The six simple machines are the lever, the pulley, the wheel-and-axle, the inclined plane, the wedge and the screw. The factor by which a machine multiplies the force applied is called 'mechanical advantage'. On the basis of location of fulcrum (the pivot point), the load and the effort, levers may be classified into three types or orders. The aim of this theme is to enable children know and understand about different types of machines and levers.

### **Learning outcomes:**

Children will be able to:

1. Define what a machine is;
2. Describe six simple machines with examples from daily life;
3. Describe different types of levers;
4. Define mechanical advantage of a lever;
5. Solve problems based on formula for mechanical advantage of a lever.

## Theme 05: Light

Light is an important element that helps in making objects visible. It travels in a straight line. When light falls on an object it casts a shadow. The earth and the moon and, in fact, planets cast their shadows in space. Sometimes, on a full-moon day, the moon passes through the shadow of the earth. The Earth casts two shadows that fall on the moon during a lunar eclipse. The umbra is a full dark shadow. The penumbra is a partial outer shadow.

### **Learning outcomes:**

Children will be able to:

1. Give examples of evidence that light travels in straight lines;
2. Describe principle, construction and working of a pinhole camera;
3. Explain the factors on which the size of the image in a pinhole camera depends;
4. Explain the formation of shadows;
5. Explain the occurrence of lunar eclipse;
6. Explain the term umbra and penumbra.

## Theme 06: Magnetism

Substances that have property of attracting iron are called magnets. The materials that get attracted towards a magnet are known as magnetic materials. For example, iron, nickel and cobalt. Materials that are not attracted towards a magnet are non-magnetic- for example, glass, plastic, wood. When a magnet is suspended freely, it always rests in the same direction. The end of the magnet that points toward North is called North pole. The end that points towards south is called South pole. This property of magnets helps us to find directions. Opposite poles of two magnets attract each other and similar poles repel one another. Each magnet is surrounded by a magnetic field. Permanent magnets retain their magnetism for a long time. Temporary magnets behave like a magnet only till they are under influence of a magnetic field. When an electric current flows through a coil of wire, the coil behaves like a magnet. This type of magnet is called electromagnet. Electromagnets are useful because their strength can be varied and they can be turned off and on, as desired.

### **Learning outcomes:**

Children will be able to:

1. State characteristics of a magnet;
2. Distinguish between magnetic and non-magnetic substances;
3. State the properties of magnets;
4. Recognise the magnetic field around a magnet;
5. Recognize the Earth's magnetic field;
6. Describe different ways to make a magnet;
7. Distinguish between permanent and temporary magnets;
8. Make a simple electromagnet;

9. List precautions for care and storage of magnets;
10. Discuss loss of magnetic property due to heating, hammering and electricity

# Grade 06

## CHEMISTRY

### Theme 01: Introduction to Chemistry

Chemistry finds applications in day-to-day life as well as in industries. Chemicals from simple to complex, are used in food, medicines, cosmetics, textile industry, agriculture, cleansing agents, etc. This theme will help children understand applications of Chemistry in their lives.

#### **Learning Outcomes:**

Children will be able to:

1. Discuss the importance of Chemistry in daily life and its role in different industries and life processes;
2. List important applications of Chemistry in day to day life;
3. List some industrial applications of Chemistry;
4. Discuss the bio-sketches of some great scientists and their works;
5. Appreciate the patience, perseverance, sacrifices and ethical conduct of scientists

### Theme 02: Elements, Compounds and Mixtures

All materials / objects found around us are either in solid, liquid or gaseous form and occupy space and have mass. In science, the term matter is used for all these materials. Chemically, matter can be classified as element, compound and mixture. In nature, matter occurs mostly in the form of mixture. Importantly, substances are required in their pure form that is done by the separation of the components of a mixture by different techniques. The use of any particular separation technique depends upon the properties of the components of the mixture.

#### **Learning Outcomes:**

Children will be able to:

1. Define elements as made up of identical atoms;
2. Classify elements as metals and non-metals on the basis of their properties;
3. Define compound and mixture and discuss the points of difference between the two;
4. Use symbols of elements and molecular formulae of the compounds to represent their names as shorthand notations;
5. Separate different components of samples of some mixtures;
6. Discuss the reasons for opting for a particular technique for separation of components of the mixture.

## Theme 03: Matter

This theme focuses on enabling children to understand that matter around exists in different physical forms. i.e. solids, liquids and gases. One form can be converted into another. Matter expands on heating and on cooling, it contracts. Besides the physical changes, matter can also undergo chemical changes on heating.

### **Learning Outcomes:**

Children will be able to:

1. Discuss the properties of solids, liquids and gasses;
2. Classify the matter into solid, liquid and gas;
3. Discuss the inter-conversion of one state of matter into another;
4. Explain the effect of heat on matter showing change of state, expansion and chemical change.

## Theme 04: Water

The theme focuses on enabling children to understand that water is essential for sustenance of life. It is considered as a universal solvent due to its capacity to dissolve a large number of compounds in it. They will also appreciate that water is becoming scarce day by day and therefore it is important to use it judiciously, conserve it and keep our water resources clean.

### **Learning Outcomes:**

Children will be able to:

1. Define 'solute', 'solvent' and 'solution';
2. Infer that solution is a homogeneous mixture of solute and solvent;
3. Discuss different examples of solutions;
4. State reasons for pollution of water resources and suggest ways to conserve water.

## Theme 05: Air and Atmosphere

This theme will enable children to know about the atmosphere around us and what air consists of and its importance. Air which is a mixture of different gases such as nitrogen, oxygen, helium, carbon dioxide, argon, moisture. Air is essential for sustenance of life on earth. They will also appreciate the need to keep air clean and that they should take the responsibility of making it free of pollutants.

### **Learning Outcomes:**

Children will be able to:

1. Describe different components of air and their composition;
2. State the importance of air for sustenance of life and for other physical and chemical processes;

3. Describe the uses of oxygen and nitrogen;
4. Discuss the causes of increase of carbon dioxide into the atmosphere.

# Grade 06

## BIOLOGY

### Theme 01: Plant Life

Plants play an important role in our lives. As learnt in the previous classes, there exists a great variety of plant life on the planet Earth. Plants vary in size from minute microscopic forms to complex tall trees. Most of the tall trees belong to higher plants. Herbs and shrubs also constitute a large proportion of higher plants. In previous classes, children have already been familiarised with parts of a plant body (root, stem, leaf, flower, fruit and seed) and their functions. This topic aims at enabling children to know and learn more about the leaf, flower and fruit, including the arrangement, characteristics and functions of the parts of a leaf and flower. Modifications of leaves for performing special functions will also be covered in this topic.

#### **Learning Outcomes:**

Children will be able to:

1. Distinguish between leaves (reticulate vs parallel venation /simple vs compound leaves);
2. Recognize, identify and draw figures of leaf modifications for support, protection, reduction in water loss and vegetative propagation in leaf;
3. Recognize that flowers are of various shapes, sizes and colors and are an important part of the plant;
4. Collect and preserve various types of flowers;
5. Explain the structure and function of each whorl of flower (complete flower);
6. List the agents of cross pollination;
7. Learn the process of seed germination and list the conditions required for germination;
8. List common names of locally available plants;
9. List the various types of modifications for special functions such as vegetative propagation and storage.

### Theme 02: The Cell

In this theme children will be introduced to the Cell. All living things consist of cells. A few organisms are single- celled (unicellular), while majority of the organisms are many-celled (multicellular). In structure, cells in plants and animals are quite similar, except for a few differences. Cells contain organelles which perform important functions for the sustenance of life. Plant cells are characterized by presence of a cell wall, plastids and a large vacuole whereas animal cells do not possess cell wall and plastids.

#### **Learning Outcomes:**

Children will be able to:

1. Identify differences in unicellular and multicellular organisms and cite examples;
2. Observe cell (plant and animal) under microscope and discuss in class;
3. Identify the different cell organelles (cell wall, cell membrane, nucleus, chloroplast, vacuole) and learn about their primary functions;
4. Distinguish and draw diagrams of a plant cell and an animal cell.

## **Theme 03: Human Body**

**The human body consists of a number of organ systems. Some of the major organ systems are the digestive, respiratory, circulatory, excretory, nervous and skeletal system. Each of these systems consists of organs, which help them perform specific functions. The expectation of this theme is to develop an understanding in children of the functioning of the digestive, respiratory and circulatory systems in the human body.**

### **Learning Outcomes:**

Children will be able to:

1. List the main parts and functions of each part of the respiratory system;
2. Distinguish between respiration and breathing;
3. Outline the mechanism of breathing and the role of diaphragm in inhalation and exhalation;
4. Name some common respiratory diseases;
5. Explain the main parts of the circulatory system;
6. List the components of blood and types of blood vessels;
7. Take their own/ others' pulse;
8. Demonstrate the significance of exercise and good food habits in keeping the heart healthy

## **Theme 04: Health and Hygiene**

**Health is defined as a state of complete physical, mental and social well-being. When diseases occur, the normal functioning of the body is disturbed. Hygiene includes all factors that contribute to healthy living. Three factors that are important for maintaining good health are balanced diet, personal cleanliness and public sanitation. This theme focuses on enabling children to know and understand that diseases are broadly classified into communicable (or infectious) diseases, and non-communicable (non-infectious) diseases and also how diseases are transmitted and why it is essential to control them.**

### **Learning Outcomes:**

Children will be able to:

1. Explain the meaning of terms such as ‘health’, ‘hygiene’ and ‘disease’;
2. Relate the knowledge acquired to the personal experiences of diseases suffered, if any.
3. Relate the types of diseases on the basis of their transmission as infectious and non-infectious.
4. Spread awareness regarding diseases to friends and family

## **Theme 05: Adaptation**

**All living organisms, for their survival, need to be well-suited to the environment in which they live. To attain this, organisms develop some features which help them to survive and reproduce in their environment. Features so acquired help organisms to adapt to their particular environments. This theme enables children to understand how some plants and animals are adapted to live and survive in dry habitats, whereas others can live in water or on mountains, or fly in air.**

### **Learning Outcomes:**

Children will be able to:

1. Define adaptation and habitat;
2. Recall the names of plants and animals, and their adaptations studied in earlier classes;
3. Record the adaptations shown by plants and animals living in desert/ aquatic conditions;
4. Prepare a list of plants and animals occurring in different habitats with their common names and adaptations.

# Grade 06

## COMPUTER STUDIES

### Topic 01: Categories of Computers and Computer Languages

This theme focuses on computers and computer languages. Computers are categorized based on the basis of (i) generation, (ii) type, (iii) purpose and (iv) size, speed, processing power and price. The aim of this theme is to enable children to communicate with the computer, by using specific languages that are broadly into three categories, i.e., machine language, assembly language and higher-level language. They will also become aware of all the different operations performed by a computer which are controlled by computer programs written in a computer programming language.

#### **Learning Outcomes:**

Children will be able to:

1. Classify computers into different categories;
2. Differentiate between computers on the basis of RAM size, Storage capacity, CPU speed, etc.;
3. Describe a Computer Language.
4. Explain the evolution of computer languages with their features;
5. Differentiate between different computer languages;
6. Explain the importance of 4GLs;
7. Explain the working of translators by differentiating between an interpreter and compiler.

### Topic 02: File Management – Organization of Data

Building on children's previous learning in primary classes this Topic covers additional and advanced features on file management which will enable them to organise data better. It is important to understand file format as it makes the task of file management easier. In file management the focus of this theme is that they develop the ability to undertake common operations on stored files such as editing, viewing, copying, playing, moving and deleting files enable better management, access and retrieval/ sorting of files by type, name, size, date (created or modified). File management will also help them to transfer data from one device to another and work with multiple applications at the same time. Understanding of a file format is important as it makes the task of file management easier.

#### **Learning Outcomes:**

Children will be able to:

1. Move/copy data from one drive to another drive;
2. Move/copy data between storage devices (pen drive, C.D. hard disc);

3. Use two or more applications at the same time;
4. Search files and folders;
5. Compare different file formats.

### **Topic 03: Word Processor - Tabular Presentation**

One of the most common but an important formatting feature of the word processor is 'Tables'. Tables are a method of presenting data in a document, in rows and columns. Blank tables can be inserted or drawn. A table can be simple (based on a metrics) or complex (having different number of rows in columns or vice versa). Intersection of a row and column is a cell. After entering data in a table, it can be modified as per the requirement.

#### **Learning outcomes:**

Children will be able to:

1. Define table;
2. Create a table and enter data in the table;
3. Edit a table;
4. Format the row/ column/table;
5. Apply borders and shading in tables.

### **Topic 04: Word Processor – Mail Merge**

The topic Mail merge is an important feature of the word processor. The aim is to develop the ability in children so as to enable them to create personalised letters for bulk mailing in a short period of time and address/ mailing labels by using this facility.

#### **Learning outcomes:**

Children will be able to:

1. Describe Mail merge;
2. Apply the concept of mail merge to multiple addresses;
3. Handle various components of mail merge;
4. Use mail merge to create multiple personalized documents from a single one.

### **Topic 05: Presentation – Visual Effects**

Presentation software is an application software that aims at enabling children to access their ideas easily while making a presentation through slide shows. It also provides the audience with visual information. They will understand appreciate how presentations can be made more attractive and interactive by using animations, sound, video, etc.

#### **Learning outcomes:**

Children will be able to:

1. Demonstrate different ways of viewing a presentation;
2. Present a Topic 0 in an attractive manner by using different objects;
3. Enhance the presentation by applying transitions and custom animations;
4. Navigate between slides during a slide show;
5. Import data from other applications.

## **Topic 06: Scratch Programming – Introduction to Game Creation**

In previous learning of the Topic on 'Scratch' children learnt how to handle basic motion block. This Topic aims at enabling children to handle and work with looks, control pen, and sound blocks of Scratch programming.

### **Learning outcomes:**

Children will be able to:

1. Handle commands of different blocks;
2. Create a working multiplayer game.

## **Topic 07: HTML - An Introduction**

HTML an acronym for Hyper Text Markup Language, is the language used to describe structured documents as well as to create web pages in Internet. Hyper Text refers to links that connect web pages/ web sites and Markup means a set of markup tags. This aim of this topic is to enable children to understand the different features of HTML and develop the ability to design a simple web page using HTML editors.

### **Learning outcomes:**

Children will be able to:

1. Define HTML;
2. Differentiate between web page, web site and web browser;
3. List various features of HTML;
4. Use various HTML tags;
5. Design a web page.

## **Topic 08: Internet – Online Surfing**

Internet is the largest wide area network. It provides us many facilities and services. In this chapter we will discuss internet services such as E-mail, E-commerce, Blogging, Podcasting and Google drive (to store and share data). The focus of this topic is to develop children's interest, understanding of and ability to use the Internet in simple ways.

### **Learning outcomes:**

Children will be able to:

1. Communicate through email;
2. Store and share data using google drive;
3. Explain online services of e-commerce;
4. Create a blog;
5. Express views/ opinions through blogs;
6. Differentiate between a website and a blog;
7. Create a podcast.