



# PEAKS

redefining holistic learning



SCIENCE

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# Yearly Scheme of Work

**Time Taken:** 160 Periods (each period of 40 minutes duration)

**Teaching Aids:** Main Coursebook, Blackboard, Digital Assets, Worksheets, Coloured Sheets

**Digital Assets:** Animation    Animated Activities    Concept Map    Diagram    Dictionary  
eBook    Experiment    I Explain    Infographic    Quiz    Slideshow    Toys from Trash  
Video    Worksheet    Test Generator

## Class 3

### Scheme of Lessons – Micro Schedule – Science = 160 periods

| Semester 1                                |                               |                                 |
|---|-------------------------------|---------------------------------|
| Theme/ Lesson No. & Name                  | Contents                      | Suggested Allocation of Periods |
| <b>We the People</b>                      |                               |                                 |
| 1. Living and Non-living Things           | Main Coursebook<br>Worksheets | 12                              |
| <b>We Live in Harmony</b>                 |                               |                                 |
| 2. Birds                                  | Main Coursebook<br>Worksheets | 13                              |
| 3. Animals                                | Main Coursebook<br>Worksheets | 12                              |
| <b>Where We Live</b>                      |                               |                                 |
| 4. Food and Feeding Habits of Animals     | Main Coursebook<br>Worksheets | 11                              |
| <b>How We Live</b>                        |                               |                                 |
| 5. Plants                                 | Main Coursebook<br>Worksheets | 14                              |
| <b>Our Solar System</b>                   |                               |                                 |
| 6. Pride of India: The Indian Scientists  | Main Coursebook<br>Worksheets | 10                              |
| 7. Ancient Scientific Inventions of India | Main Coursebook<br>Worksheets | 12                              |

| Semester 2                             |                               |                                 |
|--|-------------------------------|---------------------------------|
| Theme/ Lesson No. & Name               | Contents                      | Suggested Allocation of Periods |
| <b>Our Country and Culture</b>         |                               |                                 |
| 8. Safety and Home                     | Main Coursebook<br>Worksheets | 10                              |
| <b>What Keeps Us Going</b>             |                               |                                 |
| 9. Our Environment                     | Main Coursebook<br>Worksheets | 10                              |
| 10. Air and Water                      | Main Coursebook<br>Worksheets | 11                              |
| <b>Our Adventures</b>                  |                               |                                 |
| 11. How the Earth Moves                | Main Coursebook<br>Worksheets | 11                              |
| 12. Going into Space                   | Main Coursebook<br>Worksheets | 11                              |
| <b>We Keep Clean, Safe and Healthy</b> |                               |                                 |
| 13. Light, Sound and Force             | Main Coursebook<br>Worksheets | 11                              |
| 14. Soil                               | Main Coursebook<br>Worksheets | 12                              |

### Symbols used:



= Teaching aids required



= Differentiated Task



= Time required for the activity



= Digital assets

# Classroom Management Tips

*Classroom is the playfield of great minds at work.*

At the foundational stage, Science is to be taught as a fun activity. The **Peaks series** brings Science to the classroom as a friend to the young learners. You, the Teacher, are the facilitator to enable learners feel at ease with numbers, shapes, patterns, measurements and operations. Few Classroom Management Tips are shared here to add to your expertise of teaching and make learning fun.

- As they say, 'If you fail to plan, you are planning to fail.' The first and foremost step is to plan before you start the class. **Micro Lesson Plans** or **MLPs** are here to empower you with the latest teaching material and methodologies.
- **RULE OF THE GAME:** Engage learners to frame rules of the class right in the beginning. Asking them and then formulating the rules like walk in a line, share the beads (or whatever learning material), stop talking when you see FREEZE and start the activity when you see MELT, etc. helps in giving them a sense of partnership in learning process.
- *Change is the only constant.* **Seating arrangement** should never be the same as it leads to boredom. Arrange the seats in various shapes or groups so that you can reach out to each learner and oversee their work. An outdoor class is a great way to enhance learning experience. Once a month, it is feasible to organize the class in school garden or a nearby park (obviously, keeping in mind the safety of the learners and taking appropriate measures).
- '**A noisy class is a vibrant class**' means their excitement to answer should always be encouraged. Avoid reprimanding learners for answering in chorus or saying out loud. Rather

bodily gestures can be the rule of the class to follow. You may stand in one corner and keep the RED flashcard as the sign to stop and the GREEN one to answer. For your convenience, more strategies have been mentioned in the Lesson Plans.

- Beginning your class with a **Warm Up**, helps in controlling the class to a great extent. Remember, physically active learners are mentally alert, too.
- Introducing a topic through a **Hands-On activity** is always a great idea as it gives learners a fair idea of what is to follow. Also, learning by doing is the most effective way of learning.
- *Teacher's Handbook* is an endeavour to make teaching more effective by listing the latest techniques and methodology. Effort is made to take the burden off your shoulders through these simple yet effective teaching strategies.
- *CPA Approach:* The series clears the way for CPA Approach in Science learning using vibrant illustrations, auditory clues and story sums. The use of physical objects to solve problems (Concrete), drawings and visual aids for conceptual understanding (Pictorial) and then, translating the story sums in numerical arrangement (Abstract) helps the learners grasp the concepts and develop the numeracy skills with comfort and ease.

With these tips, you can also use the Learners Kit that has flash cards, board games and integrated practice book to enlighten the learners and imbibe activity-oriented techniques that make Science a simple, easy yet enjoyable skill.

Hope you would find it worth implementing in your class. Happy Teaching!

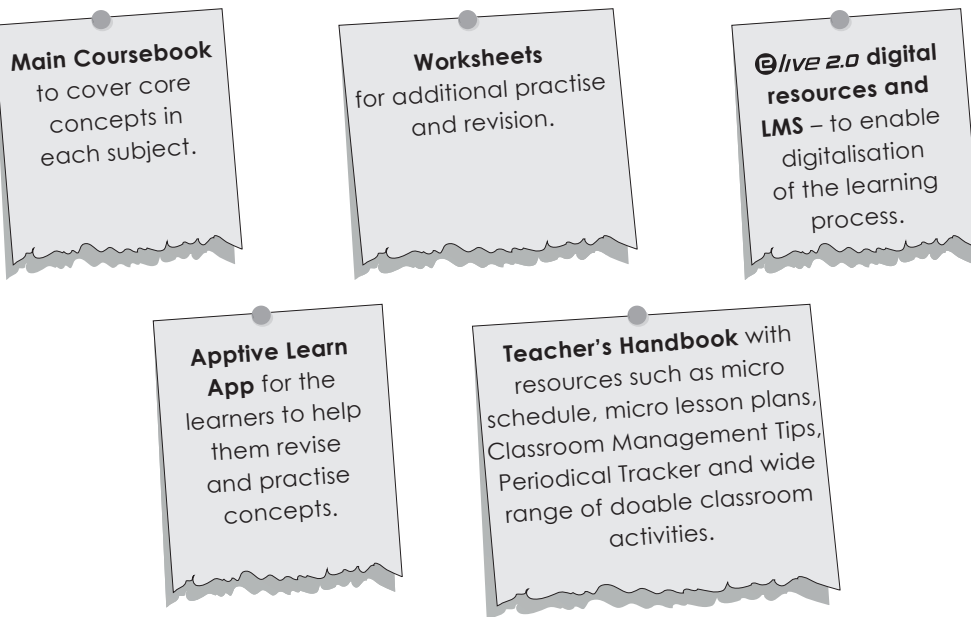
## Peaks

### Reach the Peaks of teaching

As a teacher, knowing the key concepts in making of the series would help you sail smooth throughout the academic year at the dawn of National Education Policy, 2020.

### The components

The package consists of:



### The pedagogy

- Apart from comprehension questions, the series introduces **competency-based questions** with **creative thinking, critical thinking, higher-order analytical skills** along with an **integration of ICT, Art, Project and Experiential learning** activities.
- Throughout the series, **life skills and values** are covered in a subtle manner in the coursebooks.
- The tasks in the coursebooks are based on **multiple intelligence** to include all types of learners in the classroom i.e., **inclusive learning**.

### The Teacher's Handbook

The implementation of National Education Policy, (NEP) 2020, places teacher at the centre of the transactional processes to be carried out for Competency Based Education (CBE). With a clear perspective, wide range of activities and a structured approach to adopt competency-based learning (CBL) and competency-based assesment (CBA) or the Teacher's Handbook (THB) aims at facilitating learning with a modern perspective.

The Handbook consists of various resources for the teacher:

- **Subject-specific tips for classroom management:** It contains a comprehensive guide on how to make your classroom more interactive, engaging and activity-oriented with suggested norms for classroom management.
- **Yearly Scheme of Work:** A micro schedule with an allocation of periods for each lesson/topic brings clarity to the teacher in planning of scholastic and co-scholastic activities for the entire academic year.
- **Micro Lesson Plans:** Every chapter has multiple periods allocated to it. Micro lesson plan for each period of 40 minutes aids the teacher in planning and execution of competency-based transactional processes in the classroom.

The components include:

- **Positive Affirmation** for the teacher to enlighten, brighten and give a positive start to the day.
- Suggested **number of periods** to be dedicated by the teacher for coursebook activities, worksheets and digital learning resources.
- **Teaching aids** with the use of resources from the daily life and suggestions for making of learning aids by the class.
- **Digital Assets** for the chapter are enlisted for quick reference by the teacher.
- **Learning Objectives** clearly specify the competencies and skills to be developed in the learners through the chapter/unit.
- **Methodology** includes introduction to the class, the script of interaction between the teacher and the taught, and doable activity-based teaching methods.

Every activity in the micro lesson plan is marked with:

- **MUST DO** – an activity that will help the learner understand the concept.
  - **SHOULD DO** – an activity that will help the learner extend and apply the concept.
  - **COULD DO** – an activity that will help the learner to revise.
  - **ESTIMATED TIME** – to conduct the activity is also suggested.
- **5 E's based activities:**
    - **ENGAGE** – activities to capture the learners' attention and access their prior knowledge.
    - **EXPLORE** – activities to think and investigate the core concepts.
    - **EXPLAIN** – activities to connect with previous experiences and apply knowledge to given situations.
    - **ELABORATE** – activities to extend the concepts to new situations.
    - **EVALUATE** – activities to review and assess what and how they have learnt it.
  - **Suggested Homework:** Home tasks given here include observational tasks and preparation for the next class along with worksheets, to promote flipped classroom learning.
  - **Differentiated Tasks:** A special set of activities for the active learners who want to know more and complete their tasks much ahead of their peers.
  - **Worksheets:** Inculcate conceptual clarity with critical thinking, application-oriented and integrated approach in learners. These worksheets help the teacher facilitate learning in a graded manner.
  - **Starry Knights:** Teaching can sometimes be exhaustive. To boost your morale, reward yourself with a quick self-assessment and a star sticker.
  - **Tricky Questions:** Classroom situations can sometimes become tricky. A self-check on how to handle such classroom situations.

We hope you enjoy teaching *Peaks* as much as we have enjoyed making this magical series. It is close to our heart and may it become close to yours too!

Happy Teaching!