

Learning Journey for the Year

Dear teachers, the table below summarises the learning journey you will cover with your students this year.

BOY

Beginning of Year assessment to help you identify learning gaps.

Bridge Course

Supports you in reteaching and recapping critical pre-requisite skills.

Term 1

Chapter 1

Chapter 2

Unit
ASM 1

SE 1

Biology

The following 2 chapters of Biology are to be covered in 21 days.

Nutrition in Plants (12 days)

Nutrition in Animals (9 days)

This unit assessment will assess concepts learned in Chapters 1 and 2.

SE 1 will be based on the concepts of Chapter 1.

Term 1

Chapter 1

Chapter 2

Unit
ASM 2

SE 2

Chemistry

2 chapters of Chemistry are to be covered in 18 days.

Substances: Acids, Bases, and Salts (10 days)

Chemical Reactions (8 days)

This unit assessment will assess concepts learned in Chapters 1 and 2.

SE 2 will be based on the concepts of Chapter 1.

Term 1

Chapter 1

Chapter 2

Physics

2 chapters of Physics are to be covered in 21 days.

Heat and Temperature (9 days)

Light: Spherical Mirrors and Lenses (12 days)

Learning Journey for the Year

Physics

Unit
ASM 3

SE 3

This unit assessment will assess concepts learned in Chapters 1 and 2.

SE 3 will be based on the concepts of Chapter 1.

Term 1

Chapter 3

Chapter 4

Unit
ASM 4

SE 4

The following 2 chapters of Biology are to be covered in 16 days.

Respiration in Organisms (10 days)

Forests: Our Lifeline (6 days)

This unit assessment will assess concepts learned in Chapters 3 and 4.

SE 4 will be based on the concepts of Chapter 3.

MOY

5 days of Term 1 Revision plan, followed by Middle of Year Assessment

Term 2

Chapter 5

Chapter 6

Unit
ASM 5

SE 5

Chapter 7

Chapter 8

Chapter 9

5 chapters of Biology are to be covered in 33 days.

Transportation in Animals (11 days)

Transportation in Plants (5 days)

This unit assessment will assess concepts learned in Chapters 5 and 6.

SE 5 will be based on the concepts of Chapter 5.

Asexual Reproduction in Plants (6 days)

Sexual Reproduction in Plants (8 days)

Wastewater Management (7 days)

Learning Journey for the Year

Biology

Unit
ASM 6

SE 6

This unit assessment will assess concepts learned in Chapters 7, 8 and 9.

SE 6 will be based on the concepts of Chapter 9.

Term 2

Chapter 3

Chapter 4

Unit
ASM 7

SE 7

Physics

2 chapters of Physics are to be covered in 20 days.

Motion and Velocity (11 days)

Electricity: Heating and Magnetic Effects (11 days)

This unit assessment will assess concepts learned in Chapters 3 and 4.

SE 6 will be based on the concepts of Chapter 4.

EOY

5 days of Term 2 revision plan followed by End of Year Assessment

Note: All subject enrichment (SE) activities are optional. However, It is recommended that students perform them in class in order to strengthen their conceptual understanding.

Life Skills - The important skills that students will develop this year are:

THINK

1. Solving real-world problems
2. Creating new ideas
3. Being curious
4. Reflecting on your learning
5. Learning from mistakes

COMMUNICATE

1. Communicating effectively
2. Presenting ideas
3. Using information
4. Using different media

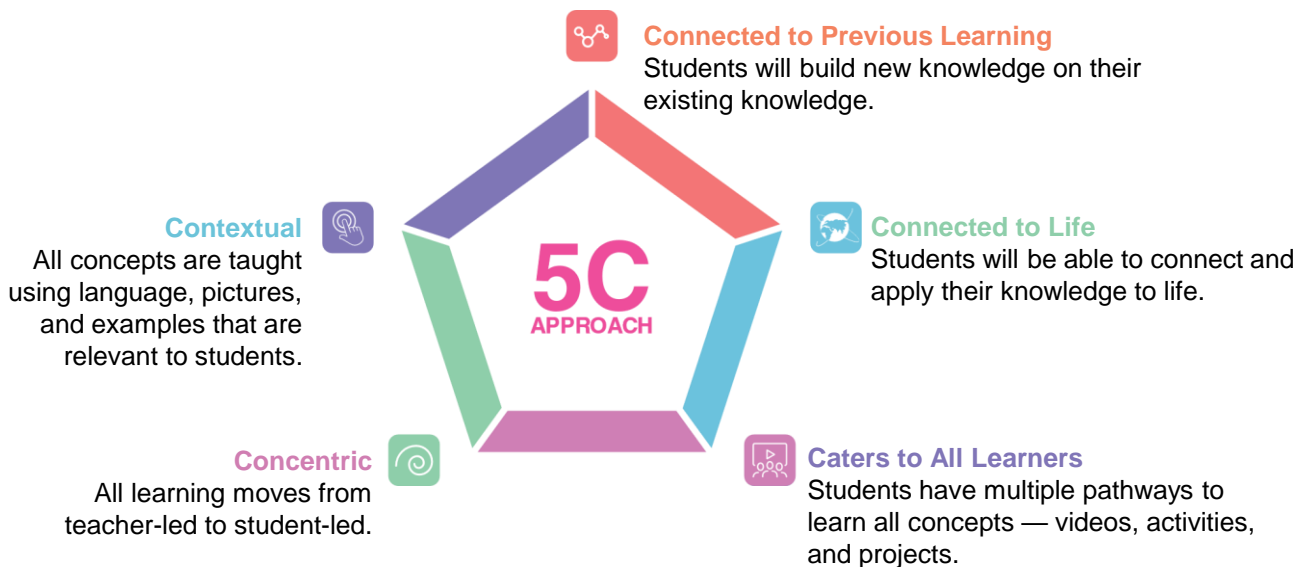
COLLABORATE

1. Working with others
2. Appreciating others' ideas
3. Resolving conflicts
4. Connecting yourself to your community
5. Connecting yourself to the nation

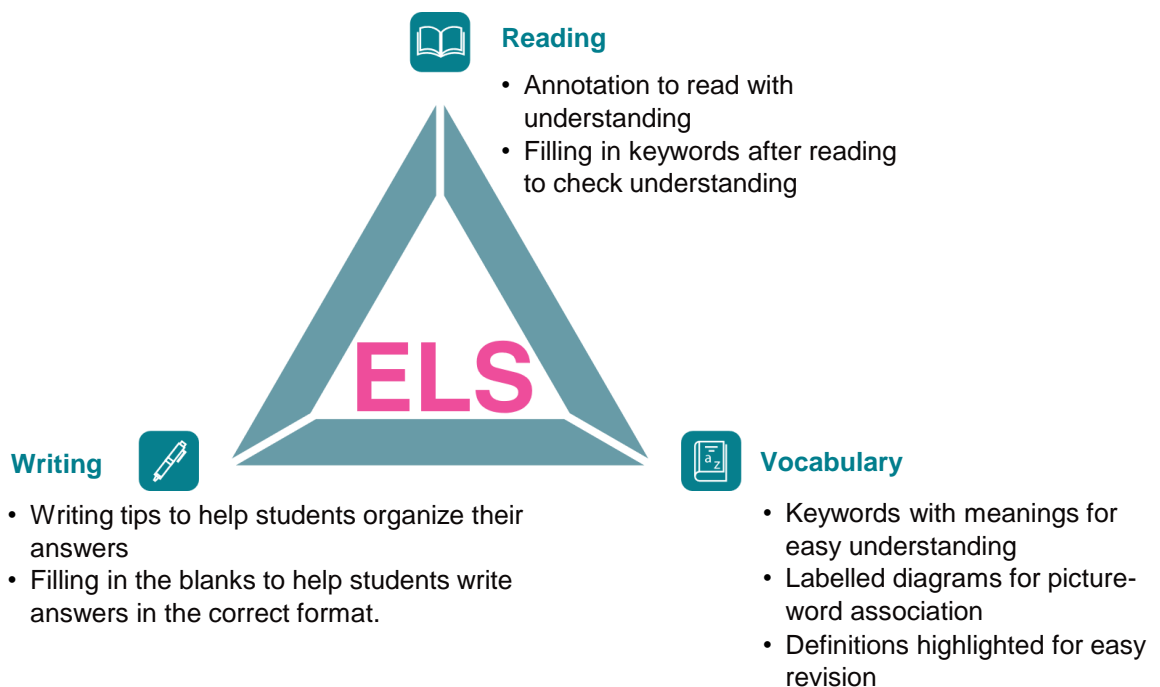
The LEAD Method

The LEAD Method includes unique pedagogical approaches you will use to help your students develop a deep understanding of concepts. These are integrated into the lesson plans.

1. 5Cs Approach: Every concept is taught through the 5Cs approach



2. ELS: English Language Strategies



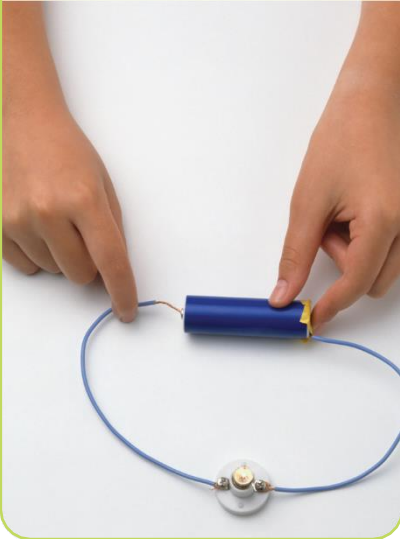
The LEAD Method

LBD — Learning by Doing



Learning by Doing is followed in various ways:

In-Class Activities



Laboratory Experiments



Videos and Demonstrations



Making Models



Community Projects



Important Icons and Features

Icons and Features of the Books

CONNECT TO LIFE

Provide activities and questions that help students apply new concepts to their life.

ACTIVITY

Help students understand concepts and apply their learnings.

KEYWORDS

Provide meanings of difficult words as they read.

THINK

Provide opportunities for building thinking skills.

COLLABORATE

Provide opportunities for building collaboration skills.

COMMUNICATE

Provide opportunities for building communication skills.



Students can access important resources at home by scanning these codes using the LEAD Student App.

Icons and Features in the Lesson Plans



Think

Ensure that you use the routines and structures as mentioned in the plans to achieve excellence in each unit.



Observe



Read

Resources called LCRs will help you understand these in detail. The LCR for each routine or structure will be mentioned under 'Preparation Needed' the first few times that routine is used.



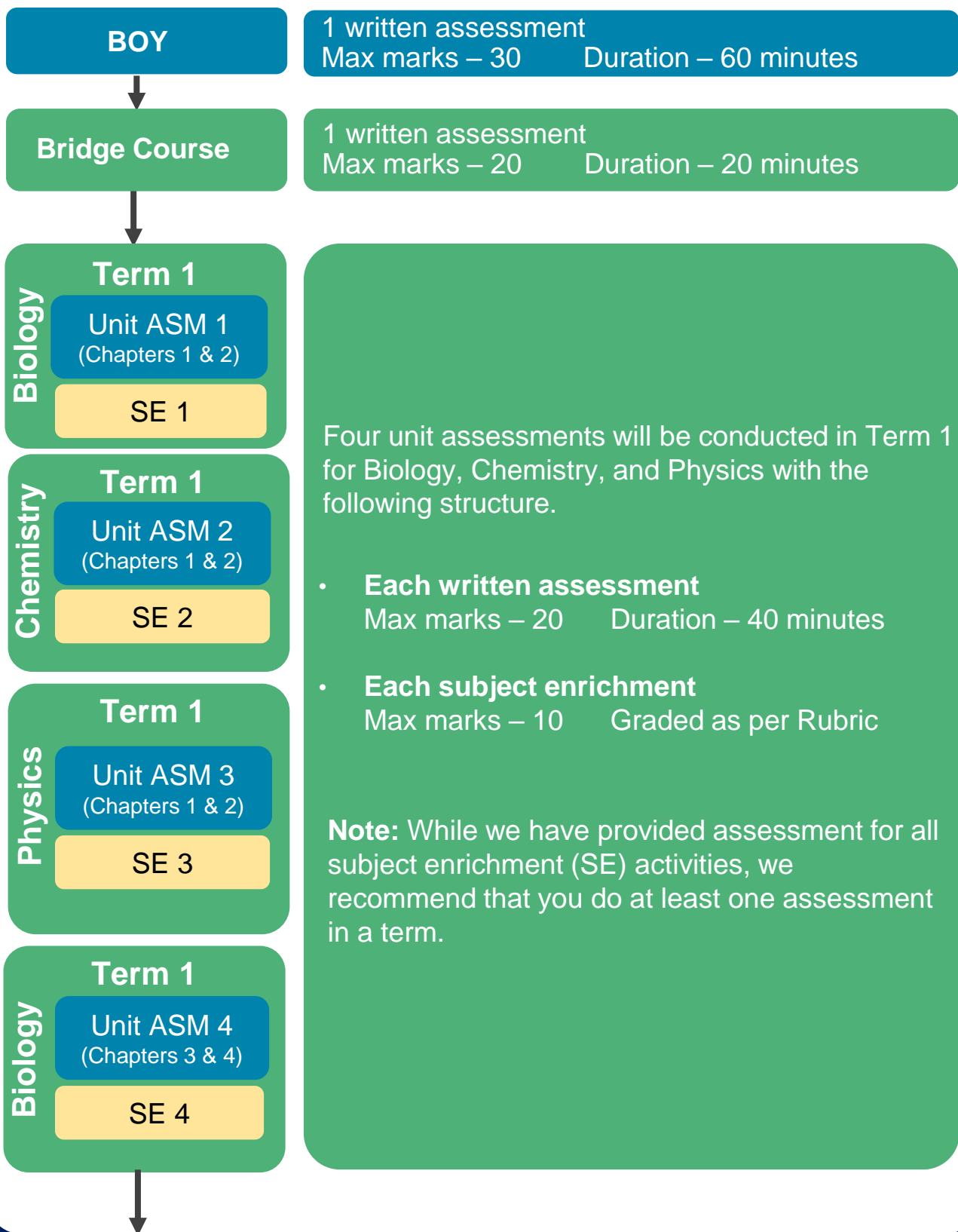
Turn and Talk



Turn-Write-Pair-Share

Assessment Structure for the Year

The objective of assessments is to check if all students have understood the concept and can apply their learning. Based on assessment data, it is very important to do strong remedials using LEAD remedial recommendation before progressing forward. LEAD prescribes the following assessments:



Assessment Structure for the Year

MOY

1 written assessment
Max marks – 80 Duration – 180 minutes

Term 2

Biology

Unit ASM 5
(Chapters 5 & 6)

SE 5

Three unit assessments will be conducted in Term 2 for Biology and Physics with the following structure.

Term 2

Biology

Unit ASM 6
(Chapters 7 – 9)

SE 6

- **Each written assessment**
Max marks – 20 Duration – 40 minutes
- **Each subject enrichment**
Max marks – 10 Graded as per Rubric

Term 2

Physics

Unit ASM 7
(Chapters 3 & 4)

SE 7

Note: While we have provided assessment for all subject enrichment (SE) activities, we recommend that you do at least one assessment in a term.

EOY

1 written assessment
Max marks – 80 Duration – 180 minutes

Assessment Framework

Unit Assessments

The written unit assessments have the following structure.

Types of Question	Marks	Questions	Total Marks
Multiple Choice Questions	1	4	4
Fill in the Blanks	4	1	4
Short Answer Questions	2	4	8
Long Answer Questions	4	1	4
		10 questions	20 marks

MOY & EOY Assessments

MOY and EOY assessments will have the following structure.

Types of Question	Marks	Questions	Total Marks
Multiple Choice Questions	1	16	16
Fill in the Blanks	8	2	16
Short Answer Questions	2	12	24
Long Answer Questions	4	6	24
		36 questions	80 marks

Assessment Framework

Spiraling in Assessments

- In MOY – 100% questions will be from Term 1 Units.
- In EOY – 75% questions will be from Term 2 Units, and 25% will be from Term 1 Units.
- In Unit Assessments – For every group subject, the unit assessment will cover 85%-90% marks from that unit and 10-15% marks from the previous units. This is to help students practice concepts and be better prepared for MOY and EOY.
- The exact syllabus is provided in the Important Notes of the respective assessment day.

Difficulty level of Questions

Difficulty level of questions in the assessments are based on Board guidelines. All questions are categorised as per the table below:

	LOTS (Lower Order Thinking Skills)	MOTS (Middle Order Thinking Skills)	HOTS (Higher Order Thinking Skills)
Definition	Questions based on recalling knowledge	Questions based on applying skills in familiar scenarios	Questions based on applying skills in unfamiliar scenarios, analyzing situations and building on top of what was taught in class.
Bloom's Level	Remember	Understand Application (simple)	Application (complex) Evaluate Analyse Create

In line with Board guidelines, LEAD assessments follow the structure explained below

Unit ASM 1 - 50% LOTS : 40% MOTS : 10% HOTS

Unit ASM 2 - 50% LOTS : 40% MOTS : 10% HOTS

Unit ASM 3 - 40% LOTS : 50% MOTS : 10% HOTS

Unit ASM 4 - 30% LOTS : 50% MOTS : 20% HOTS

MOY - 30% LOTS : 50% MOTS : 20% HOTS

Unit ASM 5, 6, 7 - 30% LOTS : 50% MOTS : 20% HOTS

EOY – 30% LOTS : 50% MOTS : 20% HOTS

We increase the level of difficulty for students slowly in Term 1.

Materials Required

You will need the following materials for the various activities and experiments that will be conducted in Term 1.

Term 1 – List of Materials

Biology

Chapter 1: Nutrition in Plants

- Potted green plants — 2
- Test tubes — 2
- Beaker (small) — 2
- Dropper — 1
- Burner or spirit lamp (and spirit for the lamp) — 1
- Petri dishes — 2
- Test tube holder — 1
- Tripod stand — 1
- Wire gauge — 1
- Forceps — 1
- Ethyl alcohol
- Iodine solution
- A4 sheet of paper — 5

Chapter 2: Nutrition in Animals

- A4 sheet of paper — 4

Chapter 3: Respiration in Organisms

- Chart paper — 1
- Plastic bottle with cap — 1
- Small balloons — 2
- Big balloon — 1
- Plastic straws — 2
- Adhesive tape — 1 roll

Chapter 3: Respiration in Organisms (Continued)

- Clay dough — 1 packet
- Straws — 1 per group

Chapter 4: Forests: Our Lifeline

- A4 sheet of paper — 1 sheet per group

Continued . . .

Materials Required

You will need the following materials for the various activities and experiments that will be conducted in Term 1.

Term 1 – List of Materials

Chemistry	Chapter 1: Substances: Acids, Bases, and Salts <ul style="list-style-type: none">• Clay — 1 packet per group• Bottle of blue ink — 1• Red litmus paper strips — 4• Blue litmus paper strips — 4• China rose flower — 2• Cotton bud — 4• Phenolphthalein indicator• Methyl orange indicator• Dilute sodium hydroxide solution• Paper strips — 4• Stirrer — 1• Dilute hydrochloric acid — 40 mL• Dilute sodium hydroxide solution — 40 mL• Laboratory thermometer — 1
	Chapter 2: Chemical Reactions <ul style="list-style-type: none">• Iron nails — 2• Distilled water
	Chapter 2: Chemical Reactions (Continued) <ul style="list-style-type: none">• Oil — 25 mL• Iron filings — 10 g• Copper sulphate crystals — 10 g• Sodium carbonate — 10 g• Iron sulphide — 10 g• Acetic acid — 25 mL• Dilute hydrochloric acid — 25 mL• Dilute sulphuric acid — 25 mL• Limewater — 25 mL• Magnesium ribbon — 1 piece• Blue litmus paper strip — 1• Red litmus paper strip — 1• Test tubes — 7

Continued . . .

Materials Required

You will need the following materials for the various activities and experiments that will be conducted in Term 1.

Term 1 – List of Materials

Chemistry	<ul style="list-style-type: none"> • Test tubes — 7 • Spatula — 1 • Bent glass tube / U-tube — 1 • Rubber corks — 5 • Pair of tongs — 1 • Spirit lamp — 1
Physics	<p>Chapter 1: Heat and Temperature</p> <ul style="list-style-type: none"> • Big bowls — 3 • Digital clinical thermometer — 1 • Liquid-in-glass clinical thermometer — 1 • Laboratory thermometers — 5 to 6 • Beakers/glasses/paper cups — 10 to 12 • Retort stands (optional) — 5 to 6
	<p>Chapter 1: Heat and Temperature (Continued)</p> <ul style="list-style-type: none"> • Board or thumb pins — 5 to 7 • 100 mL beaker — 1 • 500 mL plastic bottles — 2 • Black chart paper — 1 • White chart paper — 1 • Play dough or clay
	<p>Chapter 2 : Light: Spherical Mirrors and Lenses</p> <ul style="list-style-type: none"> • Concave mirror — 1 • Convex mirror — 1 • Convex lens — 1 • Concave lens — 1 • Lens holder — 1 • White cardboard — 1 • Cardboard stands — 2 • White chart papers — 4 • Roll of adhesive tape — 1 • Magnifying glass — 1

Continued . . .

Materials Required

You will need the following materials for the various activities and experiments that will be conducted in Term 2.

Term 2 – List of Materials

Biology

Chapter 5: Transportation in Animals

- A4 sheets of papers — 3
- Sketch pen packet — 1
- Adhesive tape or glue — 1

Chapter 6: Transportation in Plants

- Sugar solution — 50 mL
- Bobby pin — 1
- Flat-based container — 1
- Conical flask — 1
- Dye (red or blue) — a few drops
- Flower with a soft stem (such as Carnation, Gerbera, or Colocasia) — 1
- Blade — 1

Chapter 7: Asexual Reproduction in Plants

- Toothpicks — 5

Chapter 8: Sexual Reproduction in Plants

- Kidney bean — 100 g
- Moong — 100 g
- Chickpea — 100 g
- Peanuts — 100 g
- Wheat — 100 g
- Maize — 100 g

Chapter 8: Sexual Reproduction in Plants (Continued)

- Rice — 100 g
- Lemon seeds — 100 g
- Coriander seeds — 100 g
- Peas — 100 g
- Hibiscus flower — 1
- Slide — 1
- Coverslip — 1
- Simple microscope or magnifying lens — 1
- Table sugar — 10 g
- Fruit (e.g.: tomato, chilli, peas, cherry) — 1

Continued . . .

Materials Required

You will need the following materials for the various activities and experiments that will be conducted in Term 2.

Term 2 – List of Materials

Biology

Chapter 9: Wastewater Management

- 250 mL beaker — 2
- 1L plastic bottle — 1
- Filter paper — 2
- Liquid soap
- Any colouring dye
- Medium-sized sieve — 1
- Funnel — 2
- Chlorine tablet — 2

Physics

Chapter 4: Electricity: Heating and Magnetic Effects

- AA batteries — 1
- Bulb — 1
- Connecting wires
- Switch — 1
- Adhesive tape — 1
- 9V batteries with snap connectors — 1
- Nichrome wire
- Graphite pencil lead — 1
- Insulated copper wire
- Magnetic compass — 1
- Matchbox or cardboard tray — 1
- Retort stand with a holder — 1
- Piece of cardboard with a hole in its centre — 1
- Iron filings
- Magnetic compass — 1
- Plug key — 1
- Iron nails
- Steel paper clips