



## Dubai International Private School - BR.

DIPS, in partnership with parents and community, strives to ensure all students are digitally literate, lifelong learners, productive citizens and nurture their well-being in an inclusive learning environment.

"Empowering Minds, Inspiring Hearts, Shaping the Future"

"تمكين العقول، إلهام القلوب، تشكيل المستقبل"



### Science Department

Semester: 1

2026-2027

| Grade Level     |         | Subject: Science                  |                                                                                                                                                                                                                                                                                                                                                                           |                                                           |
|-----------------|---------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Teacher(s) Name |         | Mrs. Roshan, Miss Chloe, Mrs. Aya |                                                                                                                                                                                                                                                                                                                                                                           |                                                           |
| Textbook        |         | HMH Science                       |                                                                                                                                                                                                                                                                                                                                                                           |                                                           |
| Week #          | Dates   |                                   | Lesson Title / Pages                                                                                                                                                                                                                                                                                                                                                      | NGSS Standards                                            |
| 1               | Aug 31  | Sept 4                            | Orientation Week<br>Science classroom routines and safety<br>What is science? Observe, ask questions, and share ideas.                                                                                                                                                                                                                                                    | SEP: Asking Questions and Defining Problems               |
| 2               | Sept 7  | Sept 11                           | Unit 1: Engineering Design Process<br>Lesson 1: Engineer It! - What Is a Design Process?<br>Essential Question: What steps do engineers use to solve a problem?<br>Vocabulary: engineer, design process, problem, solution, plan, model<br>Activity: Put the design process steps in order and make a simple plan.<br>Assessment: Teacher observation + sequencing check  | K-2-ETS1-1;<br>K-2-ETS1-2+<br>IXL Practice                |
| 3               | Sept 14 | Sept 18                           | Unit 1: Engineering Design Process<br>Lesson 1 Hands-On Activity: Build a Better Lunch Box<br>Essential Question: How can we design a better lunch box?<br>Vocabulary: engineer, design process, problem, solution, plan, model<br>Project: Plan, build, test, and improve a lunch box model.<br>Assessment: Engineering design checklist + student reflection            | K-2-ETS1-1;<br>K-2-ETS1-2;<br>K-2-ETS1-3+<br>IXL Practice |
| 4               | Sept 21 | Sept 25                           | Unit 1: Engineering Design Process<br>Lesson 2: How Can We Compare Design Solutions?<br>Essential Question: How can we decide which design works better?<br>Vocabulary: compare, strength, weakness, test, result, evidence<br>Activity: Observe and discuss the strengths and weaknesses of different design solutions.<br>Assessment: Teacher questioning + exit ticket | K-2-ETS1-3+<br>IXL Practice                               |
| 5               | Sept 28 | Oct 2                             | Unit 1: Engineering Design Process<br>Project: Compare Strengths and Weaknesses of Design Solutions<br>Fall Science MAP - Sept 28                                                                                                                                                                                                                                         | K-2-ETS1-3+<br>IXL Practice                               |
| 6               | Oct 5   | Oct 9                             | Unit 1 Review and Assessment<br>Vocabulary: compare, strength, weakness, test, result, evidence<br>Review: design process, problem, solution, plan, model, test, compare,                                                                                                                                                                                                 | K-2-ETS1-1;<br>K-2-ETS1-2;                                |

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|    |        |                      | improve<br>Project: Explain how engineers plan, test, compare, and improve solutions.<br>Assessment: Unit 1 performance task + short assessment                                                                                                                                                                                                                                                  | K-2-ETS1-3+<br>IXL Practice             |
|    | Oct 12 | Oct 16               |                                                                                                                                                                                                                                                                                                                                                                                                  |                                         |
| 7  | Oct 19 | Oct 23               | Unit 2: Matter<br>Lesson 1: Engineer It! - What Are Properties of Matter?<br>Essential Question: How can we describe matter by its properties?<br>Vocabulary: matter, property, solid, liquid, melt, freeze, reversible, irreversible<br>Hands-On Activity: Explore Properties of Matter - observe, describe, and sort materials.<br>Assessment: Observation/sorting sheet + teacher observation | 2-PS1-1+<br>IXL Practice                |
| 8  | Oct 26 | Oct 30               | Unit 2: Matter<br>Lesson 2: How Are Objects Put Together?<br>Essential Question: How can smaller pieces be put together to make an object?<br>Vocabulary: matter, property, solid, liquid, melt, freeze, reversible, irreversible<br>Hands-On Activity: Build Objects from Smaller Pieces.<br>Assessment: Model + science notebook                                                               | 2-PS1-3+<br>IXL Practice                |
| 9  | Nov 2  | Nov 6                | Unit 2: Matter<br>Lesson 3: How Do Heating and Cooling Change Matter?<br>Essential Question: What happens to matter when it is heated or cooled?<br>Vocabulary: heat, cool, change, melt, freeze, solid, liquid<br>Hands-On Activity: Explore Cooling - observe and record changes.<br>Assessment: Observation chart + exit ticket                                                               | 2-PS1-4+<br>IXL Practice                |
| 10 | Nov 9  | Nov 13               | Unit 2: Matter<br>Lesson 4: How Does Matter Change?<br>Essential Question: Which changes to matter can be changed back?<br>Vocabulary: change, reversible, material, heat, cool<br>Project: Explore Changes to Matter and discuss whether changes can be reversed.<br>Assessment: Investigation sheet + oral explanation                                                                         | 2-PS1-4+<br>IXL Practice                |
| 11 | Nov 16 | Nov 20               | Unit 2: Matter - Investigation and Application<br>Review: properties of matter, objects made of pieces, heating, cooling, and changes<br>Hands-On Activity: Sort materials, build an object, and explain a change in matter.<br>Assessment: Science notebook + teacher observation                                                                                                               | 2-PS1-1; 2-PS1-3; 2-PS1-4               |
| 12 | Nov 23 | Nov 27               | Unit 2 Review and Assessment<br>Project: Use observations and evidence to explain properties and changes in matter.<br>Assessment: Unit 2 performance task + short assessment                                                                                                                                                                                                                    | 2-PS1-1; 2-PS1-3; 2-PS1-4+ IXL Practice |
| 13 | Nov 30 | Dec 4   National Day | Unit 3: Environments for Living Things<br>Lesson 1: What Do Plants Need?<br>Essential Question: What do plants need to live and grow?                                                                                                                                                                                                                                                            | 2-LS2-1+<br>IXL Practice                |

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|    |        |        | <p>Vocabulary: plant, water, sunlight, grow, need</p> <p>Hands-On Activity: Explore What a Plant Needs - plan a simple investigation.</p> <p>Assessment: Investigation plan + teacher questioning</p>                                                                                                                                                                                        |                                                                                          |
| 14 | Dec 7  | Dec 11 | <p>Unit 3: Environments for Living Things</p> <p>Lesson 1 Investigation - Explore What a Plant Needs</p> <p>Vocabulary: observe, water, sunlight, plant, grow, need</p> <p>Project: Observe plants in different conditions and record changes.</p> <p>Assessment: Plant observation record + discussion</p>                                                                                  | 2-LS2-1+<br>IXL Practice                                                                 |
|    | Dec 14 | Jan 1  |                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                          |
| 15 | Jan 4  | Jan 8  | <p>Unit 3: Environments for Living Things</p> <p>Lesson 2: How Do Plants Depend on Animals?</p> <p>Essential Question: How do animals help plants?</p> <p>Vocabulary: depend, animal, plant, pollinate, pollen, seed</p> <p>Activity: Use pictures and models to show how animals help pollinate plants or move seeds.</p> <p>Assessment: Model/drawing + partner explanation</p>            | 2-LS2-2+<br>IXL Practice                                                                 |
| 16 | Jan 11 | Jan 15 | <p>Unit 3: Environments for Living Things</p> <p>Lesson 2 Hands-On Activity: Plan and Build a Model Tool</p> <p>Essential Question: How can a model show how animals help plants?</p> <p>Vocabulary: model, tool, pollinate, seed, design</p> <p>Project: Plan and build a simple model tool to show pollination or seed movement.</p> <p>Assessment: Model checklist + oral explanation</p> | 2-LS2-2; K-2-ETS1-2+<br>IXL Practice                                                     |
| 17 | Jan 18 | Jan 22 | <p>Semester 1 Science Review and Assessment</p> <p>Review Unit 1: Engineering Design Process</p> <p>Review Unit 2: Matter</p> <p>Review Unit 3: Environments for Living Things</p> <p>Assessment: Semester 1 review / practical stations</p>                                                                                                                                                 | K-2-ETS1-1;<br>K-2-ETS1-2;<br>K-2-ETS1-3;<br>2-PS1-1; 2-PS1-3; 2-PS1-4; 2-LS2-1; 2-LS2-2 |
| 18 | Jan 25 | Jan 29 | <p>Semester 1 Science Assessment and Reflection</p> <p>Students demonstrate understanding through age-appropriate questions, observations, models, investigations, and explanations.</p> <p>Reflection: What did I learn as a scientist and engineer?</p>                                                                                                                                    | K-2-ETS1-1;<br>K-2-ETS1-2;<br>K-2-ETS1-3;<br>2-PS1-1; 2-PS1-3; 2-PS1-4; 2-LS2-1; 2-LS2-2 |