#### **EPSD Curriculum and**

#### HMH SCIENCE DIMENSIONS 2018 Alignment TEMPLATE

#### **GRADE 2**

### **EPSD Unit 1: Relationships in Habits First Marking Period**

Overview: In this unit of study, students develop an understanding of what plants need to grow and how plants depend on animals for seed dispersal and pollination. Students also compare the diversity of life in different habitats. The crosscutting concepts of cause and effect and structure and function are called out as organizing concepts for these disciplinary core ideas. Students demonstrate gradeappropriate proficiency in planning and carrying out investigations and developing and using models. Students are also expected to use these practices to demonstrate understanding of the core ideas. This unit is based on 2-LS4-1, 2-LS2-1, 2-LS2-2, and K-2-ETS1-1.

| Standards: Make                 |
|---------------------------------|
| observations of plants and      |
| animals to compare the          |
| diversity of life in different  |
| habitats. (2-LS4-1) Participate |
| in shared research and writing  |
| projects (e.g., read a number   |
| of books on a single topic to   |
| produce a report; record        |
| science observations). (2-LS2-  |
| 1)                              |

### Instructional Days: 15-20

#### **HMH Science Dimensions Program Resources**

#### **Unit 3: Environments for Living Things**

Unit Video (bird using its beak to get food); Unit Overview p. 107; Vocabulary p. 109 Connecting with NGSS p. 109J; Unit Project p. 109K; Unit Performance Task p. 178-179; Unit Review pp. 180-182

**Standard for all Units:** Interactive Glossary (D); Leveled Readers (D); Beginning-of-Year Test (D/P); Unit Pretest (D/P); Lesson Quizzes (D/P); Unit Test (D/P)

**Note:** Refer to the Curriculum Alignment Common Language (CACL) Guide to decipher acronyms.

| Lesson 1: What Do Plants Need? pp. 110-123                       | Lesson 2: Engineer It: How Do Plants Depend on Animals? pp. 124- | Lesson 3: What Plants and Animals Live in Water Habitats? pp. 140- | Lesson 4: What Plants and Animals Live in Land Habitats? pp. 156- |
|--|--|--|---|
| D/P- CYEI (video)<br>Plant being                                 | 139  | 155  | 177   |
| watered p. 111  D/P- CYEI What                                   | D/P- CYSI (video) A<br>bee moving pollen<br>p. 125               | D/P- CYEI (video)<br>water habitats p.                             | D/P- CYEI (video)<br>land habitats p. 157                         |
| would happen if a plant does not get the things it needs? p. 111 | D/P-CYSI You want<br>to add more<br>flowers to your              | D/P- CYEI Why do some plants and animals only live in              | D/P- CYEI Why do<br>certain plants and<br>animals only live in    |

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**Objective:** Students will make observations of plants and animals to compare the diversity of life in different habitats.

**Topics:** Plants and Animals
Twenty-First Century Themes and Skills include:
Environmental Literacy ● The Four C's ● Global
Awareness

**Essential Questions**: How does the diversity of plants and animals compare among different habitats? What do plants need to live and grow?

D/P- What Plants Need (Students view digital pictures and explore online to find out more about how plants use certain things to grow and stay healthy) pp. 112-113 P- AWYK Read. Write, Share (Students work in a small group to discuss what Plant 1 needs to look more like plant 2.) p. 113 D/P- Taking It In (Students explore online to find out more about a plant's roots, stems and leaves.) pp. 114-115 D/P- DTM (Students demonstrate understanding with **Using Equal** Groups.) p. 116 P- AWYK (ENB) Students work with a partner to

garden. How can bees help solve this problem? p. 125 D/P- Animals Help **Spread Seeds** (Students watch videos and explore online to find out more about how animals help spread seeds.) pp. 126-127 P- AWYK Read, Write, Share (Students think about a time they may have walked through the woods and found burrs stuck to their socks: use this example to discuss moving seeds. Have students create a drawing or use pictures to support their ideas.) p. 128 D/P- HO Activity Engineer It: Plan and Build a Model Tool (Students plan and investigate how to build a model

bird beak to move

ponds, in river deltas, or in tide pools? p. 141 D/P- Ponds (Students watch video and explore online to find out more about pond habitats.) pp.142-143 P- AWYK (ENB) Students work with a partner to discuss what makes a pond a good place to live; students identify patterns, use evidence to support ideas, and record answers in their ENB. p. 143 D/P- River Deltas (Students watch video and explore online to find out more about river delta habitats.) pp. 144-145 P- AWYK (ENB) Students work with a partner to discuss why a river delta is a good place for

certain land habitats? p. 157 D/P- Rain Forest **Habitats** (Students watch video and explore online to learn more about plants and animals that live in a rain forest.) pp. 158-161 P- AWYK (ENB) Students work with a partner to explain why a rain forest is a good place for an iguana to live; students use evidence to support their ideas, identify patterns and record answers in their ENB. p. 161 D/P- Forest **Habitats** (Students watch video and explore online to find out more about forest habitats.) pp. 162-165 P- AWYK (ENB) Students choose all animals that might

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observe plants and record answers in ENB. p. 116 D/P- HO Activity Explore What a **Plant Needs** (Students plan and conduct an investigation to see how water moves through plants; students watch video online to set up and complete the activity.) pp. 117-118

D/P- TIF (enrich) Where Plants Grow; Growing Plants Without Soil pp. 119-120

D/P- Lesson Check p. 121 D/P- Self Check pp. 122-123 D- Lesson Quiz

P- DI (ELL/RTI) p. 109I P-Extension p. 109I P- COLLAB p. 109J seeds; students watch video about setting up and doing the activity.) pp. 129-130 D/P- DTM Make a Bar Graph (Students complete a bar graph to show the results of testing the tool they built.) p. 131 D/P- How Animals Spread Pollen (Students explore online to find out more about how animals spread pollen.) pp. 132-133 P- AWYK (ENB) Students work in a small group to discuss how animals might help the sunflower; students use evidence to support their ideas and record answers in ENB. p. 134

D/P- TIF (enrich) Careers in Science and Engineering: some plants and animals to live and record their answers in their ENB. p. 145 D/P- Tide Pools (Students watch video and explore online to find out more about tide pool habitats.) pp. 146-148 P- AWYK Read. Write, Share (Students research the plants and animals that live in a water habitat close to their homes; students identify patterns, similarities and differences, and make a poster of the plants and animals.) p. 148 D/P- HO Activity Make Model **Habitats** (Students plan and build a model of a habitat found in a tide

pool; student

live in a forest and use evidence to support their answers; students record their answers in their ENB. p. 165 D/P- Savanna **Habitats** (Students watch video and explore online to find out more about savanna habitats.) pp. 166-169 P- AWYK (ENB) Students explain why the savanna is a good place for an elephant to live; students identify patterns, use evidence to support answers and record evidence in their ENB. p. 169 D/P- DTM Display Data (Students draw bars on the graph to show 3 bats, 1 bush baby, 1

| P- Connecting with<br>NGSS p. 109J | Horticulturalist;<br>Other Ways Seeds | watch video to set<br>up and complete | elephant, and 1<br>parrot.) p. 170 |
|------------------------------------|---------------------------------------|---------------------------------------|------------------------------------|
|                                    | Travel pp. 135-136                    | the activity.) pp.                    | D/P- HO Activity                   |
|                                    |                                       | 149-150                               | Make a Habitat                     |
| D- Science Safety                  | D/P- Lesson Check                     |                                       | Exhibit (Students                  |
| НВ                                 | p. 137                                | D/P- TIF (enrich)                     | make a plan to                     |
| D- CCC-HB                          | D/P- Self Check pp.                   | Careers in Science                    | research and                       |
| D- ELA-HB                          | 138-139                               | and Engineering:                      | compare plants and                 |
| D- M-HB                            | D- Lesson Quiz                        | Marine Biologist;                     | animals that live in               |
| D- SEP-HB                          |                                       | Coral Reefs pp.                       | a habitat found in                 |
| D- ScienceSarurs                   | P- DI (ELL/RTI) p.                    | 151-152                               | the savanna and                    |
| Reference HB                       | 1091                                  |                                       | then display their                 |
|                                    | P-Extension p. 109I                   | D/P- Lesson Check                     | results in an                      |
|                                    | P- COLLAB p. 109J                     | p. 153                                | exhibit; students                  |
|                                    | P- Connecting with                    | D/P- Self Check pp.                   | watch video to set                 |
|                                    | NGSS p. 109J                          | 154-155                               | up and complete                    |
|                                    |                                       | D- Lesson Quiz                        | the activity.) pp.                 |
|                                    | D- Science Safety                     |                                       | 171-172                            |
|                                    | НВ                                    | P- DI (ELL/RTI) p.                    |                                    |
|                                    | D- CCC-HB                             | 1091                                  | D/P- TIF (enrich)                  |
|                                    | D- ELA-HB                             | P-Extension p. 1091                   | People in Science                  |
|                                    | D- M-HB                               | P- COLLAB p. 109J                     | and Engineering:                   |
|                                    | D- SEP-HB                             | P- Connecting with                    | Dr. Emillio Bruna;                 |
|                                    | D- ScienceSarurs                      | NGSS p. 109J                          | Stepping on                        |
|                                    | Reference HB                          |                                       | Habitats pp. 173-                  |
|                                    |                                       | D- Science Safety                     | 174                                |
|                                    |                                       | НВ                                    |                                    |
|                                    |                                       | D- CCC-HB                             | D/P- Lesson Check                  |
|                                    |                                       | D- ELA-HB                             | p. 175                             |
|                                    |                                       | D- M-HB                               | D/P- Self Check pp.                |
|                                    |                                       | D- SEP-HB                             | 176-177                            |
|                                    |                                       | D- ScienceSarurs                      | D- Lesson Quiz                     |
|                                    |                                       | Reference HB                          |                                    |

|  | P- DI (ELL/RTI) p.<br>109I<br>P-Extension p. 109I<br>P- COLLAB p. 109J<br>P- Connecting with<br>NGSS p. 109J |
|--|--|
|  | D- Science Safety HB D- CCC-HB D- ELA-HB D- M-HB D- SEP-HB D- ScienceSarurs                                  |
|  | Reference HB  D- YSI Simulation City Habitats  |

#### **Curriculum Alignment Common Language (CACL) Guide K-5**

| Acronym  | Word/Phrase  | Description   |
|--|--|---|
| AWYK   | Apply What You Know  | Hands on opportunities for students to apply learning   |
| CER  | Claims Evidence Reasoning  | Students make a claim and gather evidence along the way (during EXPLORATORY activities) to support claim  |
| CYEI   | Can You Explain It   | Lesson phenomenon used to ENGAGE students in learning at the beginning of the lesson.   |
| CYSI   | Can You Solve It   | Lesson phenomenon used to ENGAGE students in learning at the beginning of the lesson.   |
| D  | Digital  | Program resources and features in interactive digit form.   |
| DI (ELL/RTI)  Extension  COLLAB  Connections to  Science | Differentiated Instruction (English Language<br>Learner/Response to Intervention)  Collaboration  Connections to Science | A page that lists all learning activities used to differentiate learning, engage students in collaborative activities and connect learning to oth subjects. |
| DTM  | Do the Math  | Integrated subject learning.  |

| ENB    | Evidence Notebook (prompt)        | Student notebook or journal used to gather evidence during EXPLORATORY learning activities to support their claims. |
|--------|-----------------------------------|---|
| ENGIT  | Engineer It                       | Integrated subject learning.  |
| НВ     | Handbooks                         |   |
| ССС-НВ | Crosscutting Concepts             | Students who need extra support in grasping concepts  |
| ELA-HB | English Language Arts             | or to refresh student knowledge of skills.  |
| М-НВ   | Math                              |   |
| SEP-HB | Science and Engineering Practices |   |
| НО     | Hands-On (Activity)               | Student collaboration activities.   |
| LS     | Language Smarts                   | Integrated subject learning.  |
| Р      | Print                             | Program resources and features in print form.   |
| TIF    | Take It Further (enrich)          | Enrichment activities for students in print or digital.   |
| YSI    | You Solve It (Simulation)         | Open-ended simulation-based learning with multiple answer options.  |