**Adaptation and Behavior Unit**

**Materials List for Supply Bins**

**Lesson #1: Introduction to Inheritance – Inherited Human Traits**

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| **Item** | **Amount** |
| Inherited Human Traits student handouts (student chart, data and analysis questions, and graph outline) | 25 |

**Lesson #2: Inherited Traits of Living Things**

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| **Item** | **Amount** |
| Pictures of living things with questions | 3 class sets |
| 5 x 8 index cards | 500 (total) |

**Lesson #3: Introduction to Adaptation**

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| **Item** | **Amount** |
| 5 x 8 index cards | 500 (total) |
| Arctic Materials:  White fur  Pillow (with rope)  Tennis racquet  Teeth  Gloves with claws  Sunglasses with eyes  Small white ears | 1  1  2  6 (not reusable)  2  1  1 |
| Desert Materials:  Black claws  Tan felt  Sponges  Fat tail  Hat with large eyes  Swimmer’s nose plug  Teeth | 10  1  2  1  1  1  6 (not reusable) |
| Clothes pins | 12 |
| Safety pins | 20 |

**Lesson #4: Wings – Natural Systems and Mechanical Systems**

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| **Item** | **Amount** |
| Article: The Physics of Flight | 25 |
| Ping pong ball | 2 |
| Funnel | 1 |
| Strips of paper | 30 |
| Spoon | 1 |

**Lesson #5: Bird Beak Adaptation**

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| **Item** | **Amount** |
| Demonstration materials  Graduated cylinder  Box of food coloring  Extras for the different challenges | 1  1  (use materials from the challenges for the other demonstrations)  Various amounts |
| Challenge #1:  Challenge #1 instructions  Graduated cylinder  Cup with a marked line  Shoestring  Dropper  Sponge strip | 10  1  1  1  1  1 |
| Challenge #2:  Challenge #2 instructions  Gummy worms  Cup  Straw  Chopsticks  Wrench/Pliers  Potting soil  Deep metal pan | 10  1 bag  1  2  1  1  1 bag  1 |
| Challenge #3:  Challenge #3 instructions  Sunflower seeds  Cup  Pliers  Chopsticks  Tweezers | 10  1 bag  1  1  1 pair  1 |
| Challenge #4:  Challenge #4 instructions  Styrofoam pieces  Cup  Chopsticks  Tweezers  Slotted spoon  Shallow metal pan | 10  1 bag  1  1 pair  1  1  1 |
| Challenge #5:  Challenge #5 instructions  Rice  Circular piece of Styrofoam  Dropper  Tongs  Tweezers | 10  1 bag  1  1  1  1 |
| Challenge #6:  Challenge #6 instructions  Marshmallows  String  Chopsticks  Tongs  Skewers | 10  1 bag  1 roll  1 pair  1  1 |
| Stopwatches | 6 |
| Bird beak adaptations student instructions, data and analysis, and graph | 50-100 |
| Build-a-bird activity cutouts | 50-100 |

**Lesson #6: Adaptation – Increasing Survival and Reproduction** (no provided materials)

**Lesson #7: How Does Adaptation Happen? – Adaptation Simulation**

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| --- | --- |
| **Item** | **Amount** |
| Red faux fur fabric | 1 piece |
| Black furry fleece fabric | 1 piece |
| Red pom poms | 200 |
| Black pom poms | 200 |
| White pom poms | 200 |
| Plastic forks | 24 |
| Plastic spoons | 24 |
| Plastic knives | 24 |
| Cups | 30 |
| Black forest pom pom record sheets | 80 |
| Red grassland pom pom record sheets | 80 |
| Student adaptation simulation predictions, data charts, graphs, and analysis questions | 50-100 |

**Lesson #8: How Living Things Respond to Changes in the Environment**

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| --- | --- |
| **Item** | **Amount** |
| Article: How Changes in the Environment Can Cause Animal and Plant Extinction and Migration | 25 |
| Set of index cards with animal information | 1 set with 20 cards |

**Lesson #9: Adaptation – Raccoon Islands**

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| --- | --- |
| **Item** | **Amount** |
| Island Descriptions:  Island A  Island B  Island C  Island D | 25  25  25  25 |
| Island Diagrams:  Island A  Island B  Island C  Island D | 25  25  25  25 |

**Lesson #10: Introduction to Behavior**

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| --- | --- |
| **Item** | **Amount** |
| 5 x 8 index cards | 500 (total) |
| Male fish\* | 2 (NOT INCLUDED) |
| Fish containers\* | 2 (NOT INCLUDED) |
| Fish food\* | 1 (NOT INCLUDED) |
| Wooden stick | 10 |
| Small mirror | 2 |

\* **Ask Jen or Molly AT LEAST 2 weeks ahead of time for the fish if you decide to do this lesson.**

**Lesson #11: Learned and Instinctive Behavior**

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| --- | --- |
| **Item** | **Amount** |
| Animal Behavior and Communication DVD | 1 |

**Lesson #12: Mapping Cricket Behavior**

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| --- | --- |
| **Item** | **Amount** |
| Crickets (in bags or containers)\* | 30 (NOT INCLUDED) |
| Cricket food (apple, bran, etc.)\* | 1 bag of each type of food (NOT INCLUDED) |
| Cardboard boxes (approximately 8 x 10 inches with paper on sides to prevent the cricket from jumping out)\* | (NOT INCLUDED) |
| Mapping paper (8 x 10)\* | (NOT INCLUDED) |
| Round stickers | 600 |
| Cricket shelters | 10 |
| Saran wrap | 1 |
| Stopwatches | Get from lesson #5 |

\***Ask Jen or Molly AT LEAST 1 week ahead of time for the crickets and other materials if you decide to do this lesson.**

**Lesson #13: Research Project on Animal Adaptations** (no provided materials)