# HEP SCIENCE YEAR 2 OUTLINE

| Half Term | Unit | Objectives | Breakdown of Lessons | Simple Investigations (With Working Scientifically) | Key Vocabulary |
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| 1 | **Growing Plants** | Observe how seeds and bulbs grow; Learn about plant needs (water, light, temperature) | 1. Introduction to Plant Growth<br>2. Germination: Plant seeds and observe early growth<br>3. Observing Growth<br>4. What Plants Need<br>5. Comparing Growth<br>6. Summarising and Recording | Asking Simple Questions & Suggesting Answers: Pupils ask, 'What do plants need to grow?' and suggest answers like water, light, and soil.<br>Planting Seeds: Pupils plant sunflower seeds and bean seeds, varying water and light.<br>Observing Closely & Using Equipment: Use magnifying glasses to observe seed changes daily.<br>Recording Data: Measure plant height weekly, record observations in a plant diary. | Seed, Bulb, Growth, Soil, Light, Water, Temperature |
| 2 | **Uses of Everyday Materials** | Compare the suitability of materials for different uses; Explore how materials can change shape | 1. Introduction to Materials<br>2. Sorting Materials<br>3. Testing Materials<br>4. Comparing Uses<br>5. Changing Shapes<br>6. Summarising and Recording | Performing Simple Tests: Pupils test materials like paper, plastic, metal, and rubber to see if they bend, twist, stretch, or squash. Make predictions, conduct tests, and observe outcomes.<br>Identifying & Classifying: Pupils classify materials based on properties.<br>Recording Data: Pupils draw tests and describe observations. | Material, Property, Hard, Soft, Bend, Stretch, Strong, Flexible |
| 3 | **Animal Needs** | Learn about animal life cycles; Understand basic needs of animals and humans (food, water, air) | 1. Introduction to Life Cycles<br>2. Babies and Adults<br>3. Growth and Change<br>4. What Animals Need<br>5. Human Life Cycle<br>6. Summarising and Recording | Identifying & Classifying: Use picture cards showing life stages (e.g., egg, caterpillar, butterfly). Discuss how these stages are connected.<br>Performing Simple Tests: Pupils conduct a heart rate experiment before and after exercises. Record differences.<br>Using Observations to Suggest Answers: Discuss why exercise affects heart rate. | Baby, Adult, Life cycle, Food, Water, Air, Exercise, Hygiene |
| 4 | **Local Habitats** | Distinguish between living, dead, and never alive; Explore local habitats and how they meet needs | 1. Introduction to Habitats<br>2. Living, Dead, Never Alive<br>3. Local Habitats<br>4. Microhabitats<br>5. Basic Needs in Habitats<br>6. Summarising and Recording | Exploring & Observing: Nature walk to find living (plants, insects), dead (leaves), and never alive (stones).<br>Using Simple Equipment: Hand lenses to observe small plants, insects, or soil.<br>Gathering & Recording Data: Make lists and draw findings. | Habitat, Environment, Food chain, Animal, Plant, Predator, Prey |

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| 5 | **Habitats & Microhabitats** | Investigate different habitats and microhabitats; Understand how conditions affect living things | 1. Exploring Habitats<br>2. Microhabitats in Detail<br>3. Conditions and Adaptations<br>4. Observing Different Habitats<br>5. Comparing Habitats<br>6. Summarising and Recording | Observing Over Time: Pupils select a small outdoor area to observe over a week. Record changes in insects and plants.<br>Using Simple Measurements: Measure temperature and light levels. Compare sunny to shaded spots.<br>Comparative Testing: Discuss why certain animals are found in one microhabitat and not another. | Microhabitat, Adaptation, Environment, Conditions, Biodiversity |
| 6 | **Food Chains and Health** | Create simple food chains; Learn about human health and the importance of a balanced diet | 1. Introduction to Food Chains<br>2. Producers, Consumers, and Predators<br>3. Building Food Chains<br>4. Importance of Health<br>5. Healthy Diets<br>6. Summarising and Recording | Model Making & Identifying: Pupils create simple food chains (e.g., sun → grass → rabbit → fox).<br>Gathering Information: Pupils research food groups and create a balanced meal plan.<br>Using Ideas to Suggest Answers: Discuss how eating different foods affects health. | Food chain, Producer, Consumer, Predator, Health, Diet |