



Curriculum Links

KS3 Science

	Brief Description	Equipment Includes	Centres			Curriculum Information	
			PGL Little Canada	PGL Osmington Bay	PGL Winmarleigh Hall	Geography	Science
Habitats and Adaptations	Students identify a variety of flora and fauna in different habitats and conduct simple experiments.	FSC ID cards, anemometer, thermomter, pH/ moisture/light meters, activity worksheets	✓	✓	✓	Using field work techniques, understanding how human and physical processes interact to influence, and change landscapes, environments and the climate. Collect, analyse and communicate awith a range of data gathered through expeirences of fieldwork.	Scientific attitudes; evaluate risks, understand scientific methods and theories, pay attention to objectivity and concern for accuracy, precision, repeatability and reproducibility. Make predictions, using scientific knowledge and understanding. Relationships in ecosystems, how organisms affect and are affected by their environment.
Rocky Shore	Students investigate a rocky shore environment to identify and classify the organisms they encounter.	FSC ID cards, activity worksheets, small containers, magnifying glasses, white tray	✓	✓		Using field work techniques, understanding how human and physical processes interact to influence, and change landscapes, environments and the climate.	Interactions and interdependencies; relationships in ecosystems, how organisms affect, are affected by their environment.
World of Invertebrates	The different habitats in the centre grounds are home to a variety of invertebrates, which students identify and classify.	Magnifying glasses, Nets, FSC ID cards, Activity worksheets	✓	✓	✓	n/a	Interactions and interdependencies; interdependence of organisms in an ecosystem, including food webs - the importance of plant reproduction through insect pollination. Genetics and Evolution; differences between species - variation between species and individuals of the same speceis means some organisms compete more successfully, which can drive natural selection.
Alternative Energy Technology	Students explore how weather conditions can be used to create power, using three different microclimates on centre.	Activity sheets, thermometers, barometers, hygrometers, anemometer, Lego models, solar power cars, dressing up props, video camera/ digital camera	✓	✓	✓	Making predictions using scientific knowledge and understanding. Energy; fuels and energy resources. Earth and Atmosphere; the production of carbon dioxide by human activity and the impact on climate	n/a



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Solar System	Inside our amazing mobile planetarium, students learn about seasonal variation, day and night, the solar system and our galaxy.	Planetarium, activity worksheets	✓	✓	✓	n/a	Space physics; our Sun as a star, other stars in our galaxy, other galaxies. The seasons and the Earth's tilt, day length at different times of year, in different hemispheres.
Everyday Chemistry	By conducting a series of experiments, students learn about common chemical processes and states.	Balloons, candles, sand tray, glowsticks, cornflour, water, coca cola, mentos, geyser tube, baking soda, water, plastic bags, milk, food colouring, washing up liquid, milk of magnesia, vinegar, activity worksheets	✓	✓	✓	n/a	The particulate nature of matter; properties of the different states of matter (solid, liquid, gas). Chemical reactions; the pH scale for measuring acidity/alkalinity; and indicators - what catalysts do. Energetics; exothermic and endothermic chemical. Making predictions using scientific knowledge and understanding. Matter; the difference between chemical and physical changes
Forensic Investigation	Forensic science techniques such as finger printing, chemical testing and code breaking are employed to decipher clues and examine evidence.	Activity worksheets, fingerprinting powder, materials, soils and pH testing equipment..	✓	✓	✓	n/a	Experimental skills and investigations; ask questions and develop a line of enquiry based on observations from the real world alongside prior knowledge and experience. Make predictions using scientific knowledge and understanding, apply sampling techniques.
Geology, Rocks and Fossils	Rocks from different time periods are studied along with concepts of erosion and fossilisation.	Activity sheets, sample fossils, fossil and rock guides, digital camera.	✓	✓		Using field work techniques, understanding how human and physical processes interact to influence, and change landscapes, environments and the climate.	Earth and Atmosphere - the rock cycle and the formation of igneous, sedimentary and metamorphic rocks - earth as a source of limited resources - the structure of the Earth.