

The Crystal Rainforest and the National Curriculum

This leaflet details the National Curriculum Attainment Targets that may be addressed in work connected with the Crystal Rain Forest, either actually on the computer or in further work away from the computer.

Levels appropriate to Key Stage 2 have been included with the addition of some at level 6 where their content is considered to be very relevant.



Science in the National Curriculum

AT 1: Exploration Of Science.

Level 4 Follow written instructions and diagrammatic representations.

AT 2: The Variety of life.

Level 2 Know that plants and animals need certain conditions to sustain life.

Level 6 Know that the balance of materials in a biological community can be maintained by the re-cycling of materials and that human activities can affect this re-cycling.

AT 3: Processes of Life.

Level 6 Know that respiration is a process in which energy is transferred to enable other life processes to occur. Know that water, light energy and carbon-dioxide are needed for photosynthesis and that sugars and starch are produced and that oxygen is a by-product.

AT 4: Genetics and Evolution.

Level 3 Know that some life forms became extinct a long time ago and others more recently.

AT 5: Human Influences on the Earth.

Level 3 Know that human activity may produce local changes in the Earth's surface, air and water.

Level 6 Be able to identify the positive and negative effects of exploitation of raw materials, including harmful effects on the environment.

AT 8: Earth and Atmosphere.

Level 5 Know that landscapes are formed by a number of agents including Earth movements, weathering, erosion and deposition, and that these act over different time-scales. Be able to explain the water cycle.

AT 12: The Scientific Aspects of Information Technology.

Level 3 Know that information can be stored electronically in a variety of ways. Be able to retrieve and select text, number, sound or graphics stored on a computer.

AT 13: Energy.

Level 4 Understand the idea of global energy resources and appreciate that these resources are limited.

Mathematics in the National Curriculum.

AT 4: Number.

Level 5 Use and refine 'trial and improvement' methods.

AT 6: Algebra.

Level 2 Understand the use of a symbol to stand for an unknown number.

AT 8: Measures.

Level 2 Know how to use coins in simple contexts.

AT 10: Shape and Space.

Level 4 Understand and use language associated with angle.

Level 6 Know and use all angle properties and symmetry properties of quadrilaterals and other polygons. Use computers to generate and transform 2-D shapes.

AT 11: Shape and Space.

Level 2 Understand the notion of angle. Give and understand instructions for turning through right angles. Recognise different types of movement: straight movement (translation); turning movement (rotation); flip movement (reflection).

Level 4 Specify location by means of co-ordinates and by means of angle and distance.

Level 6 Devise instructions for a computer to produce desired shapes and paths.

Technology in the National Curriculum.

AT 5: Information Technology Capability.

Level 2 Use information technology for the storage and retrieval of information.

Level 3 Give a series sequence of direct instructions to control movement.

Level 4 Develop a set of commands to control the movements of a screen image or robot; understand that a computer program or procedure is a set of instructions to be followed in a pre-determined sequence.

Geography in the National Curriculum.

AT 1: Geographical Skills.

Level 2a Use geographical vocabulary to talk about places(e.g. slope, river, hill, wood, park, home). *2c* Follow a route using a plan.

Level 4b Measure a straight line distance between two points on a plan.

AT 2: Knowledge and Understanding of Places.

Level 2c Identify features of a locality outside the local area and suggest how these might affect the lives of the people who live there. *2d* Describe similarities and differences between the local area and another locality.

Level 4b Describe how the landscape of a locality outside the local area has been changed by human actions.

AT 3: Physical Geography.

Level 2b Identify the forms in which water occurs in the environment.

Level 3a Describe contrasting weather conditions in parts of the world. *3b* Describe what happens to rain water when it reaches the ground.

Level 4b Describe evidence that materials are eroded,transported and deposited. *4c* identify parts of a river system including sources,channel,tributaries and mouth.

Level 5c Explain the causes and effects of river floods,and methods used to reduce flood risks.

Level 6b Describe characteristics of one type of vegetation and relate those characteristics to environmental conditions and processes,including climate and human actions.

AT 5: Environmental Geography.

Level 2a Identify how people obtain materials from the environment. *2b* Describe ways in which people have changed the environment.

Level 3a Describe effects on environments of extracting natural resources.

Level 4b Describe whether some types of environment need special protection.

4c Describe ways in which damaged landscapes can be restored.

Level 5b Distinguish between renewable and non-renewable resources.