



KS2 Activities at Ecton Related to the National Curriculum - 2014

Science - There are many opportunities for “Working scientifically” (not quoted here), during the course at Ecton. Specific topics are shown below.

Geography – Locational knowledge; human and physical geography; geographical skills and fieldwork can all be incorporated into the day – see below.

Maths & History – many opportunities for implementing NC statements – some are given below.

Design and technology – “understand how key events and individuals in design and technology have helped shape the world”. The technical drawings of the Boulton and Watt steam engine, available at the Centre are also relevant.

Activity	N.C. Science (Sc)	N.C. Geography Gg	N.C. Maths	N.C. History
Introduction		Key topographical features (including hills, mountains rivers), and land-use patterns; and understand how some of these aspects have changed over time.		General - Local History study e.g. “a study of an aspect of history or a site dating from a period beyond 1066 that is significant in the locality
Safety briefing	Working scientifically			
Copper theme	Conductors - useful things from raw materials	Distribution of natural resources including minerals		Need for copper in Bronze Age mined at Ecton and transported,
Fossiliferous limestone, chert, sandstone	How fossils were formed millions of years ago; properties of materials			
Elevation above O.D.	S.I. Units			
Making limestone – settling of sand in water	Gravity: friction; how fossils are formed			
Shell smash	Properties of materials			
Home-made rock	Properties of materials			
Mountain building -squeezebox	Properties of materials		2D & 3D visualisation	
Brickquake	Forces ; friction			
Mineral separation				
How to separate?	Need to test ideas		Mental estimates of answers	
Concept of density	Use knowledge			
Jigging	Use equipment - sieving			Technological change
Buddling	Evaluate results ditto			Technological change
Gold panning	Ditto, ditto			Technological change



Activity	N.C. Science (Sc)	N.C. Geography Gg	N.C. Maths	N.C. History
Copper onto iron nail	Dissolving non-reversible reaction			
Salt's Level visit				
Briefing with map and plan	Working scientifically	Use maps	2D & 3D visualisation	
Temperature in Salts v Centre	Temperature -a measure of heat & cold			
Condensation	Evaporation, condensation	Water Cycle		
Fossiliferous limestone	Properties of materials			
Flowstone (test with dilute HCl)	Non-reversible reaction		Compare and sequence intervals of time	
Stalactites	Precipitation by evaporation			
Shot holes & mining methods	Non-reversible reaction with black powder			
Distance, width & height in mine	Measurements in SI units		Use appropriate standard units to estimate and measure length/height. Fathom v meter	
Life of the miner				Time framework Experiences of men, women & children in past: 18 th Century & Victorian Britain: welfare of children at dressing floors.
Slickensides "earthquake"	Forces & evidence of direction of forces		2D & 3D visualisation	
Crosscut – galena: malachite	Properties of materials		2b 2D & 3D visualisation	
Distance and depths	S.I. units			
Shaft "falling time"	Gravity, air resistance		Need for S.I. units.	
Folding	Properties of materials			
Pipe vein – minerals checklist	Properties of materials			
Candlelight / pitch black	Seeing			



A. Ecton Hill Walk				
General relief – hills; valleys; limestone v shale/sandstone areas; flood plain of R. Manifold; influence of mining on landscape; changes following closure of mines.	Environmental issues – holes in ground; waste heaps; regeneration of plants etc.	Use fieldwork to observe, measure, record and present the human and physical features in the local area. Use maps.		How our knowledge of the past is constructed from a range of sources
Bronze Age antler pick				Correct periods of time; dates and vocabulary
Plants & animals	Protection, habitats			
Dutchman water supply	Explanatory notes – research water supply	Water Supply		
Finale				
Black powder	Burning – non-reversible			Technological change