Information and Communications Technology

ICT planning with Sustainable Travel Links for KS2

Objectives:	Pupils should be taught to:
	• design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
	• use sequence, selection, and repetition in programs; work with variables and various forms of input and output
	• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
	• understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration
	• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
	• select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
	• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content
Success Criteria:	• an ability to write programs for a specific task
	• use of sequences, repetitions, and various inputs and outputs
	• logical reasoning to explain how the algorithms work
	• how to access information safely and what to do if there are concerns
	• discerning use of information and an ability to evaluate it
	• combination of software for presentations

Activity Ideas

- Use of programmable devices such as Roma to follow directions on a map of the school, journey to school giving precise instructions using positional and directional vocabulary
- Finding best routes from certain points (www.mapometer.com/)
- Recording data at different time of day – surveys – links to creating Travel Plan information
- Using pedometers to ascertain how far/fast people walk and what could be done to improve fitness
- Taking photographs of bike, cycles storage and classifying that information in different ways, date, title, type, size
- Thinking of devices such as speed cameras, speed reminders and pelican crossings, how do they store information and use timers?
- How can these be upgraded? How can they be made environmentally friendly?
- Research on Road Safety sites – are they appropriate, easily accessible and useful?
- Creating presentations for School Travel Plans, School Grounds and Healthy Schools projects

Assessment

- Can write programs for a specific task
- Can use sequences, repetitions and various inputs and outputs
- Can use logical reasoning to explain how the algorithms work
- Can show how to access information safely and what to do if there are concerns
- Can demonstrate discerning use of information and an ability to evaluate it
- Can use a combination of software for presentations

See also "Websites to support Sustainable Travel in primary schools"
in the "Overview" section