



**IMPRESSE (2)**  
**RENNES (FR)**  
**EXPERIMENTAL ACTIVITIES**  
**(by pupils)**



**Science is a statutory entitlement for all 5- to 16-year olds, accounting for 20% of curriculum time.**

P R I M A R Y E  S 1 & H 2 O O L	<b>Official aspects</b>	<b>Technical aspects</b>	
	<p>All pupils undertake investigations starting with knowledge and understanding of the world at the Foundation stage. The National Curriculum for science begins at Key Stage one and continues throughout school life; this is obligatory for all pupils. Science is taught for two to three hours a week in primary school during normal teaching timetable often in the afternoons. As topic based teaching is making a comeback there is some evidence for cross-curricular projects which include a science aspect. At age 11 pupils take the national science SATs test</p>	<p>Grouping of pupils depends on the nature of the activity and availability of equipment. Most pupils tend to do the same investigation but in some work pupils work in separate experiments and report their findings back to the class or they may do differentiated work. The class teacher teaches science in the usual classroom. Some primary schools now have science specialist teachers who teach all the science classes throughout the school.</p>	
L S K O E E W C Y E O R N S D T A A R G Y E  3	<b>Official aspects</b>	<b>Technical aspects</b>	
	<p>This three year course culminates in a public examination (SATs) in which some questions address practical aspects of science, such as problem-solving. The Key Stage 3 Strategy has promoted the role of practical science. Pupils are made fully aware of Health and Safety issues from a young age.</p>	<p>Where possible practical science is taught by science graduates in laboratories. Large class-sizes and the cost of chemicals and equipment determine how much practical work is undertaken by the pupils themselves. Consequently, computer simulations and interactive whiteboards are becoming more popular. While pupils 'obtain results' they do not become familiar with the skills necessary for practical science. Hands-on investigations tend to be conducted in small groups.</p>	
U S K P E E P C Y E O R N S D T A A R G Y E  4 & 5	<p><b>KS 4 (GCSE)</b> is undergoing a major reconstruction (with effect from September 2006), with more emphasis on relevance of the subject to the learner in everyday life. Schools select one of the specifications offered by 4 examination boards and pupils sit the public exams produced for that specification. Currently the curriculum is content-overloaded so practical work often tends to be minimised; in some schools pupils do little more than the compulsory course-work. The new specifications promises to increase the amount of hands-on practical work attempted, as well as encouraging learners to read and analyse media material on socio-scientific issues. The course-work portfolio will account for 30+% of the final mark and not be restricted to laboratory practical work.</p>	<p><b>Key Stage 5 (A-level) (age 16+)</b> Biology, Chemistry, Physics (and Psychology) are offered as separate subjects. Science, the History &amp; Philosophy of Science, and The Public Understanding of Science are now also offered in some centres. More time is dedicated to practical work to develop the learners' skills in preparation for a science course at the tertiary level, while enhancing their Knowledge and Understanding of the science. Independent working is strongly encouraged</p>	<b>EVALUATION</b>
			<p>In both courses practical work currently comprises 20% of the final mark. Learners should work on their own to generate sets of data that they analyse and evaluate. Current course-work requirements tend to be time consuming.</p>