

## Liverpool John Moores University

Title: Developing Primary Science and Primary Mathematics  
Status: Definitive quality denied chng  
Code: **5014PRIM** (117621)  
Version Start Date: 01-08-2016

Owning School/Faculty: Education  
Teaching School/Faculty: Education

Team	Leader
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**Academic Level:** FHEQ5      **Credit Value:** 36      **Total Delivered Hours:** 126.5

**Total Learning Hours:** 360      **Private Study:** 233.5

### Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	125

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Science		20	1.5
Portfolio	Science		53.7	
Portfolio	Maths		26.3	

### Aims

*To develop students' knowledge and understanding of key scientific concepts, scientific enquiry skills and pedagogy associated with teaching the subject in Key Stage Two. To explore and analyse the key elements of progression of children's conceptual understanding in science and acquisition of skills of scientific enquiry. To apply this knowledge to inform the planning of effective learning sequences.*

*To develop students' mathematical subject knowledge and an understanding of how this links to the subject and pedagogical knowledge required for teaching primary mathematics.*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Demonstrate knowledge and understanding of key concepts and related pedagogy underpinning effective teaching and learning of science and mathematics in Key Stage Two.
- 2 Apply, analyse and evaluated key professional elements of teaching primary science.
- 3 Recognise and implement appropriate teaching strategies to address common mathematical errors made by primary pupils.

## **Learning Outcomes of Assessments**

The assessment item list is assessed via the learning outcomes listed:

Exam	1	
Portfolio	2	
Portfolio	1	3

## **Outline Syllabus**

*Science (24 credits):*

*Scientific enquiry at Key Stage 2 - skill development and progression*

*National Curriculum requirements for Key Stage 2 science for:*

*Physical Processes*

*Materials and their Properties*

*Life Processes and Living Things*

*Progression of key concepts*

*Planning teaching and learning sequences*

*Managing group work*

*Introduction to differentiation in science*

*Children's misconceptions*

*Formative and summative assessment in science*

*Mathematics (12 credits):*

*Number and place value*

*Development of mathematical subject knowledge linked to NC*

*Mental calculations*

*Errors and misconceptions in mathematics*

*Reasoning*

*Planning and assessment*

*Introduction to differentiation in mathematics*

*Algebra*  
*Fractions*  
*Decimals*  
*Percentages*

### **Learning Activities**

The module will be taught through lectures, practicals, workshops and enriched with school-based placement. Students will also be expected to engage in independent study, including the auditing and tracking of their subject knowledge development.

### **Notes**

The module develops students' subject knowledge and pedagogical repertoire for the teaching of science and mathematics in the primary school.