

## Liverpool John Moores University

Title: EXPLORING SCIENCE THROUGH INVESTIGATION  
Status: Definitive but changes made  
Code: **6030PGSKSC** (104422)  
Version Start Date: 01-08-2016

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

Team	Leader
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**Academic Level:** FHEQ6      **Credit Value:** 24      **Total Delivered Hours:** 58

**Total Learning Hours:** 240      **Private Study:** 182

### Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	6
Off Site	10
Practical	30
Seminar	10
Tutorial	2

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	(4500 words equivalent)	64	
Report	AS2	(1500 words equivalent)	16	

### Aims

*This module enables students to extend their understanding of key physics or chemistry concepts through a range of practical and investigative activities.*

*The module will also enable them to critically reflect on their own learning and on pedagogical strategies for supporting the learning of secondary science through practical and investigative work.*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Critically reflect on their learning and independently plan to extend their subject knowledge to a level appropriate for teaching secondary school physics or chemistry.
- 2 Apply key physics or chemistry concepts to analysis of physical systems during practical activities.
- 3 Competently and safely assemble and adapt school science practical activities.
- 4 Identify key pedagogical issues when designing secondary science practical and investigative activities.

## **Learning Outcomes of Assessments**

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

CW	1	2	4
CW	3		

## **Outline Syllabus**

*Through conducting and critically evaluating a series of secondary science practical and investigative activities, and reflecting on implications for teaching and learning, the following key areas will be covered:*

*Key science concepts from A-level Physics or Chemistry*

*Principles of effective learning of science through practical and investigative work*

*Key research into school science practical and investigative work*

*Use of ICT tools*

*Safety issues in school practical science*

## **Learning Activities**

Individual & group practical work (self-directed with staff and peer support) in laboratory and outdoor spaces, whole-class teaching, action learning sets

## **Notes**

The module will be a series of practical sessions in which essential practical skills

and experimental techniques are practised.