



Chimney  
House  
Alliance

National Teaching School  
designated by



National College for  
Teaching & Leadership

Raising  
achievement  
through  
collaboration.

## Subject Knowledge Enhancement Courses



# SKE Secondary Physics

for Non-specialist Physics Teachers

### Course Venue:

HCCS Training Centre,  
Selkirk Drive,  
Holmes Chapel,  
Cheshire,  
CW4 7DX.

### Dates of the course:

Wednesday 3rd December 2014	14.00 - 17.00
Saturday 13th December 2014	09.00 - 13.00
Wednesday 14th January 2015	14.00 - 17.00
Saturday 31st January 2015	09.00 - 13.00
Wednesday 11th February 2015	14.00 - 17.00
Wednesday 17th March 2015	14.00 - 17.00
Saturday 25th April 2015	09.00 - 14.00
Wednesday 13th May 2015	09.00 - 15.00

**This course costs £150 per delegate.**

### The aim of course:

A thorough breakdown of National Curriculum Physics at KS3 and KS4 with aspects of KS5 Physics common to all exam boards.

The SKE sessions can be tailored to suit participants. Participants will be expected to have completed assignments between sessions.

All Subject Knowledge Enhancement sessions will include engaging practical activities and possible teaching strategies.

To book a place on the course or to find out further information please contact:

[lilian.mckechnie@hccs.info](mailto:lilian.mckechnie@hccs.info)  
or call 01477 689 544

Delivered by an SLE in Physics in partnership with HCUK.



**HCUK**  
Hibernia College UK

# SKE Course Secondary Physics

## Put these dates in your diary:

DATE	TIME	SESSION CONTENT
Wednesday 3rd December 2014 <b>Introduction</b>	14.00 - 17.00	<b>Subject knowledge audit, HCUK Modules, Resources, Current Electricity KS3 - KS4</b> This session covers some simple ideas of electric current, including misconceptions and suitable analogies and models. You will look at differences between series and parallel circuits and be able to design circuits for various scenarios.
Saturday 13th December 2014	09.00 - 13.00	<b>Generating Electricity, Transformers KS4 Current Electricity KS5</b> In this session, we will explore the topic of electricity - how we use it and how we explain how it works. We will cover Electrostatics, EMF, Potential Difference and Resistance
Wednesday 14th January 2015	14.00 - 17.00	<b>Waves KS3 - KS5</b> We learn how to describe the characteristics and properties of waves, discuss refraction and its applications, and take an in-depth look at the electromagnetic spectrum.
Saturday 31st January 2015	09.00 - 13.00	<b>Work, Energy and Power KS3 - KS5</b> This session covers the links between forces, energy and power and looks at the different ways to think about energy stores and transfers.
Wednesday 11th February 2015	14.00 - 17.00	<b>Forces and Motion KS3 - KS4</b> Here we check basic understanding of forces and motion at KS3 and KS4 and some of the misconceptions that pupils hold, explain relationships between speed, velocity and acceleration and develop explanations for introducing the concepts behind Newton's laws of motion.
Wednesday 17th March 2015	14.00 - 17.00	<b>Space and Gravitational Fields KS4 - KS5</b> In this session, we look at the development of theories about the Earth, Solar system and Universe. We will cover the life cycle of the stars and gravitational fields as well as plate tectonics.
Saturday 25th April 2015	09.00 - 13.00	<b>Atomic Structure and Radioactivity KS4 - KS5</b> The session looks at what radioactivity is, how a model for the atom was developed through Rutherford's work on the scattering of alpha particles. Some ideas about the teaching of radioactivity are also explored. The difference between fission and fusion is also introduced and as an extension activity to study binding energies and chain reactions.
Wednesday 13th May 2015	09.00 - 15.00	<b>Science Learn Together Partnership Course "Getting to Grips with A-level Physics"</b>

The course leader is **Carolyn Delves**; Specialist Leader of Education who is experienced in delivering SKE at university level complemented with HCUK distance learning package.