

*Extract from the course science booklet for GITEP (The Gloucestershire Initial Teacher Education Partnership – University of Gloucestershire) from the introductory section summarising the standards for QTS.*

## **Knowledge of the National Curriculum and citizenship:**

### **National Curriculum Audit and the initial tasks:**

**Task 1 - What is science?** (Do this before you look at the National Curriculum)

**(a) Identify**, what, for you, are the main purposes of science (*summarise on 1 side of A4*):

- [What does it do? What are its outputs? What distinguishes it from technology? What are the main methods by which science operates? How does science work?]

**(b) Identify**, what, for you, are the **big ideas** in science (*summarise on 1 side of A4*):

- One way to do this is to construct a rough time-line, over the last 1000 years, and put onto it the main scientific advances. We need scientific *ideas* here not technological inventions (germ *theory* of disease, rather than smallpox vaccination programme. *Ideas* of heat and energy not the steam engine).

**Task 2 - What is science?** (Comparison with the National Curriculum)

- Look at the part of programme of study (for key stages 3 and 4) entitled: 'Scientific Enquiry' (pages 28/29 and 46/47) and **match them with your responses** above to task (1a).
- Now survey the national curriculum (for key stages 3 and 4) entitled: science 2 (Biology), 3 (Chemistry) and 4 (Physics) and check them against your 'big ideas' above (1b). Are there any ideas you forgot? Are there any ideas in your list that are not in the National Curriculum?

The National Key Stage 3 Strategy for Science identifies five **key ideas** – what do you think these should be?

### **Task 3 – Audit of subject knowledge**

This is needed for the main task of the first day of the Subject Support course. Look through the programme of study for science 2, 3 & 4 at key stages 3 & 4 (double award) of the Science National Curriculum (pages 30-36 and pages 48-57)

We have already sent those on the subject knowledge course an electronic version, downloaded from the web [www.nc.uk.net](http://www.nc.uk.net). Create a table with 4 columns. Make the **main descriptive heading** (followed by the appropriate letter and sub heading for the three concept areas - science 2, 3 and 4) your first column in this table. Label the three

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other columns (and place ticks as appropriate):

- (a) Topics which you are confident and can act as a tutor
- (b) Topics which you are reasonably happy, and
- (c) Topics which you need help

The subject support course will help you plan out your course of action to develop these weaker areas and begin the process of upgrading your subject knowledge. You will be given further support through the PGCE course, but it is your own responsibility to work on these areas.

**You need to review your subject knowledge audit every half term through the year.**

**Your attempts to do SATs GCSE and A level papers.**

During the year we will ask you to do SATs, GCSE and A level papers. Your attempts will be marked by colleagues, and will provide the focus for discussion on assessment (see below) and to monitor the standard of your own subject knowledge. Try logging on to some of the revision sites, such as BBC [Bitesize](#).

### **2.3 Knowledge of the wider curriculum:**

Links to primary schools (you will make formal visits during your parent school induction)  
You will be lent a copy of '*Teaching Primary Science*',

Be pro-active in making links with forms, careers education and citizenship.