Department for Education

Draft programme of study for science for key stage 4: consultation

Government consultation response

September 2014

Contents

Introduction

On 11 June 2014 the Department for Education published a consultation on the proposed programme of study for science for key stage 4. In line with changes to the subject content for new GCSEs, the consultation set out the government's proposal for a new stretching programme of study, with expectations that match those in the highest performing jurisdictions.

The consultation closed on 23 July 2014 and 54 responses were received. The Secretary of State has considered the responses and has published a new programme of study that will be taught from September 2016, subject to the Order governing the national curriculum being made. We received responses from the following:

Teachers	12
Schools	5
Representative body	2
Parent/Carer	3
Union/body representing teachers	2
Local Authority	1
Subject associations	1
Other	28
Total	54

Summary of responses received and the government's response

There were 54 responses on the content of the programme of study, and 44 responses on whether the programme of study provides appropriate progression from key stage 3.

18 of the 44 responses felt that the draft programme of study provides for appropriate progression from key stage 3 (compared to 14 who disagreed). There were two main issues relating to both the content and progression from key stage 3. These were:

- The lack of content about sex education - concern was raised that pupils are not being properly taught sex education especially sexual health issues such as sexually transmitted diseases including HIV/AIDS. It was also suggested that human reproduction should be taught in more detail.

- Not enough content on Earth science - whilst the programme of study does include some aspects of Earth science it focuses on atmospheric science and does not cover plate tectonics. There were also calls for the programme of study to encompass wider areas of science such as geology.

Response

The science programme of study aligns closely with the subject content for the new combined science GCSE which was published on the 9 April 2014 and builds on the key stage 3 programme of study. By the end of key stage 4 every pupil should have acquired the essential scientific knowledge and understanding they need to understand the world they live in. As an integral part of this pupils should also have developed a good understanding of the processes and uses of science. The science they are taught should excite them, fire their curiosity and provide a good foundation to study science further.

The programme of study has been amended to include sexually transmitted diseases including HIV/AIDS. This mirrors what is included in the new science GCSE content and supports the Government's ambition to build knowledge and resilience about sexual health among young people as set out in the Framework for Sexual Health Improvement in England published by the Department of Health in 2013.

It is important that young people are taught all aspects of sex education. This is best covered in Sex and Relationships Education (SRE) which is compulsory in all maintained secondary schools. Hormonal and non-hormonal methods of contraception are included in the draft science key stage 4 programme of study and pupils will be taught about human reproduction at key stage 3.

The Government believes that Earth science, including plate tectonics, is sufficiently covered within the new national curriculum and suitable opportunities to explore this important topic are available at GCSE level.

At key stage 3, in science pupils will be taught about the composition and structure of the Earth, and the rock cycle and the formation of igneous, sedimentary and metamorphic rocks. In geography they will be taught to understand the key processes in physical geography relating to geological timescales and plate tectonics. In science at key stage 4 pupils will be taught other aspects of Earth science with a focus on atmospheric science. The new GCSE criteria for geography includes being taught about geomorphic processes and Earth sciences in more detail. This will include, for example, how geomorphic processes have influenced and continue to influence the landscape of the UK.

Equalties

Section 149 of the Equality Act 2010 requires the Secretary of State, when exercising functions, to have due regard to the need:

- to eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act

- to advance equality of opportunity between people who share a protected characteristic and those who do not

- to foster good relations between people who share a protected characteristic and those who do not

The relevant protected characteristics applicable to schools are disability, gender, pregnancy and maternity, race, religion or belief, sexual orientation and gender reassignment.

The consultation asked for views on potential equality implications of the proposed programme of study for science. There were 37 responses to this question. 24% thought that the proposals would have a negative impact upon particular groups, compared to 43% who thought it would not and 32% who were not sure.

The vast majority of those responses which thought that the proposals would have a negative impact were in relation to the issues about there not being enough content on sex education. Groups of children this will affect include children who might identify as lesbian, gay, bisexual and transgender (LGBT) and children whose parents identify as LGBT.

Response

We will publish a full equalities impact assessment after the programmes of study have been finalised – expected to be in December 2014. This will consider the impact of the changes for protected groups.

The tested subjects were the 5 most widely-taught in Europe: biology, chemistry, physics history and geography. Each jurisdiction tested their pupils in 2 of these subjects. In England, these were chemistry and physics.

Department for Education

© Crown copyright 2014

You may re-use this document/publication (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence v2.0. Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

To view this licence:
visit www.nationalarchives.gov.uk/doc/open-government-licence/version/2
email psi@nationalarchives.gsi.gov.uk

About this publication:
enquiries www.education.gov.uk/contactus
download www.gov.uk/government/consultations

Reference: DFE-00598-2014

Follow us on Twitter:
@educationgovuk

Like us on Facebook:
facebook.com/educationgovuk