

## **Discussion**

### **Should Creationism and Evolution be given equal time in the Science classroom?**

#### **A notion of caution**

Since this topic can cause great controversy, young or newly qualified teachers should consult with the school hierarchy before leading this discussion.

#### **Introduction**

As discussed in the talk, the concept of Evolution has met with considerable opposition from some religious groups, especially conservative Christians in some parts of the USA. Over the past century there have been repeated attempts to remove Evolution from the Science Curriculum or water down its implications. A recent trend is to argue that Creationism and Evolution be given “equal time” in the Science classroom.

Creationism is a philosophy that states that a literal reading of the events outlined in Book of Genesis in the Bible is the only adequate explanation for how Life came into being. The implication of this viewpoint is that the concept of Evolution is incorrect. On the surface, this demand for “equal time” seems OK. After all, isn’t it fair to present both sides of the debate when teaching young people? In this discussion, we’ll look at this contentious issue at little more closely.

#### **Guidance for handling discussion**

Discussion of this topic is likely to arouse strongly held opinions on both sides and should be sensitively chaired by a teacher. It is important to stress on the one hand that everyone respects each other’s views, but also that each speaker backs up his or her viewpoint with evidence, rather than repeating dogmas. The chair should make a habit of interrupting speakers (at an appropriate point) to ask them what the evidential support is for their views.

Depending on the demography of the class, it will also be important to widen the debate to cover other religions. Although the Evolution-Creation controversy has historically centred on Christianity, other faiths like Islam and Hinduism also promote Creationism in various forms. In fact the teaching of Evolution is currently banned in the Islamic nations of Saudi Arabia and Sudan, and widely suppressed in Turkey, where acceptance of the concept of Evolution is only around 25%.

Start by asking for a show of hands: Who accepts the concept of Evolution, who doesn’t, and who’s not sure? (Statistics suggest that only 79% of Britons accept Evolution, so in an average class of 30 there will be typically 6-7 people who are opposed or sitting on the fence).

Encourage one of two students in each category to talk about why they accept or reject Evolution, or are simply not sure. If everyone accepts Evolution, quote the statistic that show that only 40% of Americans and 79% of Britons accepts Evolution. Ask for reasons why so many people struggle with accepting Evolution.

As the discussion develops, throw some of the following questions or thoughts into the mix (not necessarily in the order below), or simply let the discussion evolve naturally:

- Q. What is the evidential basis of Evolution? What is the evidential basis of Creationism? Does Creationism offer a scientific explanation of how life developed?
- Q. If the majority of people in a country voted that Evolution was wrong and Creationism was correct, would it be right to teach Creationism as the best explanation for the origin and development of life on Earth?
- Q. Should politicians dictate what can and can't be taught in Science lessons? (Remind students how John Scopes of Tennessee was fined for teaching evolution in 1925).
- Q. If Creationism, which is based on Christian Belief, was taught alongside Evolution in the Science classroom, should Islam, Hindu, and other creationism viewpoints also be taught?

### **Synthesis**

It is essential that five minutes are allocated at the end for the teacher to summarize some of the key points of the discussion and to try and come to some reasoned conclusions. In particular, it should be made clear (if the discussion has not already amply demonstrated this) that Creationism and Evolution should not be given "equal time" in the Science classroom for the following reasons:

- (1) In almost all cases Creationism is not a scientific approach to understanding the origin and development of Life on Earth. It is founded on untestable religious beliefs. Therefore the proper place to teaching about Creationism in all its forms is in Religious Studies lessons.
- (2) Where Creationism does occasionally raise testable hypotheses about the origin and development of life, the most parsimonious interpretation of the evidence invariably shows them to be incorrect. For example, some Creationists argue that the whole geological record was deposited during a matter of weeks in the course of Noah's flood. However, fossil forests show that even a single bed of rock can take hundreds of years to form. Incorrect scientific hypotheses should not be taught in the science classroom.

The other major point to stress is that a scientific understanding of the world is based on interpretation of facts. So if Evolution is factually true, then it remains true even if it nobody accepts it, or if governments legislate against it.