

## **SMSC in Science**

### **Spiritual Development**

Awe and wonder is at the heart of everything in science – making sense of the world around us and figuring out where we fit in. The complexity of life is explored, the vast expanse of the universe and the interactions of forces and particles that we cannot see but that enable us to live our lives on a day to day basis.

### **Moral Development**

There are a number of topics within science that lend themselves to ethical debate. Much of modern science relies on the use of embryonic stem cells, and the question of whether this is morally acceptable is being discussed by politicians and scientists around the globe. We enter into the same debate in the classroom.

Other more abstract ideas are explored and debated – the splitting of the atom leading to nuclear warfare, the development of ammonia for fertiliser being used for chemical warfare. The debate around whether such inventions are 'right' or 'wrong' can get students really thinking about their own stance on such matters.

### **Social Development**

Students are also encouraged to collaborate in pairs and small groups during all practical work, learning how to assign roles and communicate effectively in order to achieve a team goal. Evaluation of these practicals gives students the opportunity to learn how to criticise constructively, not just blaming others if something hasn't gone right but trying to analyse the problem and come up with ways of improving their skills for the next time.

### **Cultural development**

Students often take science as an absolute – facts that are true or false. Through our curriculum, we show them the journey that was taken to get to the understanding we have today. Often scientific ideas were not accepted when they were first introduced, and understanding the social history around the development of these ideas gives context to the idea of science as an ever-changing subject.