

# Spiritual, Moral, Social & Cultural (SMSC) Development in Science

**SPIRITUAL** – Science is using evidence to make sense of the world. It has the ability to make us feel both enormously insignificant (compared to the scale of the visible universe) and enormously significant (we are genetically unique). It helps us understand our relationship with the world around us (how the physical world behaves, the interdependence of all living things). Making new discoveries increases our sense of awe and wonder at the complexities and elegance of the natural world. For scientists, this is a spiritual experience and drives us onwards in our search for understanding.

**MORAL** – Whether it's the ethics behind certain medical treatments, the environmental impact of industry, or how government funding is allocated to scientific projects; moral decisions are an important aspect of Science. Scientific discoveries and inventions need to be used responsibly, and decisions made based on evidence (not prejudice). As teachers, we encourage pupils to be both open minded (generating a hypothesis) and critical (demanding evidence) and to use their understanding of the world around them in a positive manner.

**SOCIAL** – Scientists are collaborators. Sharing ideas, data, and results (for further testing and development by others) is a key principle of the scientific method. We encourage pupils to work together on scientific investigations and to share results (to improve reliability). Science has a major impact on the quality of our lives. In Science lessons, pupils consider the social impact (both positive and negative) of science and technology.

**CULTURAL** – Science permeates modern culture, and has played a key part in developing it. It is (both currently and historically) an international activity. In Science lessons, we explore and celebrate research and developments that take place in many different cultures, both past and present. We explore how scientific discoveries have shaped the, beliefs, cultures and politics of the modern world.

Specific examples of Spiritual, Moral Social and Cultural Develop in Science include:

- Studying and discussing the impact on human beings on the environment, the problems created by industry and possible solutions.
- Investigating the impact of significant scientists from around the world.
- Debating and discussing ethical issues in science such as cloning, genetic modification, nuclear power, climate change.
- Studying the scientific method and how scientists collaborate to share and test ideas.