**Curriculum Intent**

**Motto:**  **Ausculta**

**Mission Statement:**  **Living, Loving and Learning through Christ.**

**Theological Virtues**

**Faith:**  **The virtue by which we believe in God.**

**Hope:**  **The virtue by which we trust God.**

**Love (Charity):**  **The virtue by which we love God.**

**Intent Overview**

At St. Joseph’s, our science curriculum is a living expression of our mission statement and theological virtues. Through the disciplines of Biology, Chemistry and Physics, we aim to spark awe, curiosity, and a lifelong love for learning in every student. Our curriculum is rich in both knowledge and values, encouraging students to grow academically, spiritually, and socially, equipping them for life beyond school.

**Supporting the Mission Statement**

Our teaching promotes the virtues of **Faith** (confidence in learning and the order of creation), **Hope** (vision for a sustainable future), and **Love** (respect and compassion in scientific discourse and application). Through a 5-year learning journey, students gain not only academic mastery but also an understanding of science’s relevance in a Catholic context, particularly in service to others and stewardship of God’s creation.

**Faith, Hope and Love in Formation**

* **Faith**: By exploring the wonders of the universe and the intricacies of life, students develop an appreciation of creation and a belief in the power of understanding.
* **Hope**: Students build resilience and ambition, encouraged by the transformative power of science to address global challenges.
* **Love**: Compassion is cultivated through debates on ethics, collaboration in practical work, and empathy in topics such as health, inequality, and environmental justice.

**Cultural Capital & Lifelong Learning**

Our curriculum fosters **scientific literacy**, encourages real-world connections, and enhances **cultural capital** through:

* Exposure to ethical debates and scientific dilemmas
* Participation in science fairs, museum visits, and external competitions
* Developing students' ability to speak confidently and write with precision
* Promoting curiosity about science in their homes and communities

**Ambition, Challenge & Breadth**

The curriculum is deliberately **ambitious**, ensuring:

* Deep coverage of diverse scientific theories across cultures and time
* A progression from foundational knowledge at KS2 to GCSE-level complexity at KS4
* Extended opportunities in KS3 to close learning gaps from disrupted schooling
* Strategic setting and targeted support at KS4, including additional tuition and revision sessions

**Curriculum Planning & Sequencing**

* Curriculum is built as a **coherent 5-year plan**, closely aligned with KS2 content and KS5 expectations.
* *Feeder primary engagement*, KS3 science days, and bridging activities strengthen transition.
* *Sequence of learning flowcharts* and RYG reflection tasks support student ownership of progress.

**Literacy, Oracy and Scientific Language**

We embed high expectations for literacy and oracy:

* Frequent use of scientific texts, method writing, and structured evaluation tasks
* Classroom debates and structured talk for learning
* Extended writing assessed through the “St Joseph’s Writing Standards”

**Inclusion: SEND and Disadvantaged Learners**

* Individualised support plans, scaffolded resources, and targeted interventions ensure all students access the full curriculum
* PP students benefit from strategic interventions, including tutoring, devices, and revision materials

**Teacher Expertise & CPD**

* Team of 5 specialists, including 2 AQA examiners
* Mentoring for non-specialists and collaborative planning
* Regular CPD, lesson observation, and county-wide subject network involvement

**Metacognition and Assessment**

* “Do Now” retrieval tasks and RYG reflections promote metacognition
* Use of Seneca, quizzes, and scaffolded formative assessments
* Summative assessments include extended writing and integrated literacy targets

**Catholic Social Teaching Integration**

The Science curriculum consciously embeds the **7 Themes of Catholic Social Teaching**:

1. **Life and Dignity of the Human Person**
Discussions on medical ethics, organ donation, and drug use underline respect for life and dignity.
2. **Call to Family, Community, and Participation**
Team-based learning and global cooperation in topics like climate change mirror the need for community solidarity.
3. **Rights and Responsibilities**
Lessons on sustainability, energy, and access to medicine highlight our shared responsibility to the planet and each other.
4. **Option for the Poor and Vulnerable**
Topics like global health, biofuels, and access to technology stress support for those in need.
5. **Dignity of Work and Rights of Workers**
Students learn about the history of scientific labour, including under-recognized pioneers like Gregor Mendel.
6. **Solidarity**
Collaborative learning fosters mutual support and shared goals, reflecting global scientific cooperation.
7. **Care for God’s Creation**
Environmental science topics promote stewardship of Earth, from pollution to biodiversity and sustainable energy.