

Catholic Standards – 7-12

Standard	Description
General Standards	
DOA.CSS.712.GS1	Exhibit a primacy of care and concern at all stages of life for each human person as an image and likeness of God.
DOA.CSS.712.GS2	Explain and promote the unity of faith and reason with confidence that there exists no contradiction between the God of nature and the God of the faith.
DOA.CSS.712.GS3	Value the human body as the temple of the Holy Spirit.
DOA.CSS.712.GS4	Share how the beauty and goodness of God is reflected in nature and the study of the natural sciences.
Intellectual Standards	
DOA.CSS.712.IS1	Articulate how science properly situates itself within other academic disciplines (e.g., history, theology) for correction and completion in order to recognize the limited material explanation of reality to which it is properly attuned.
DOA.CSS.712.IS2	Demonstrate confidence in human reason and in one's ability to know the truth about God's creation and the fundamental intelligibility of the world.
DOA.CSS.712.IS3	Analyze how the pursuit of scientific knowledge, for utilitarian purposes alone or for the misguided manipulation of nature, thwarts the pursuit of authentic Truth and the greater glory of God.
DOA.CSS.712.IS4	Relate how the search for truth, even when it concerns a finite reality of the natural world or of man, is never-ending and always points beyond to something higher than the immediate object of study.
DOA.CSS.712.IS5	Explain the processes of conservation, preservation, overconsumption, and stewardship as it relates to creation and to caring for that which God has given to sustain and delight us.
DOA.CSS.712.IS6	Evaluate the relationship between God, man, and nature, and the proper role in the totality of being and creation.
DOA.CSS.712.IS7	Describe humanity's natural situation in, and dependence upon, physical reality and how man carries out his role as a cooperator with God in the work of creation.
DOA.CSS.712.IS8	Evaluate the errors present in the belief system of scientific naturalism or scientism ^[2] (which includes materialism ^[3] and reductionism ^[4]), which posits that scientific exploration and explanation is the only valid source of meaning.
DOA.CSS.712.IS9	Distinguish the difference between the use of the scientific method and the use of theological inquiry to know and understand God's creation and universal truths.
DOA.CSS.712.IS10	Articulate the limitations of science (the scientific method and constraints of the physical world) to know and understand God and transcendent reality.
DOA.CSS.712.IS11	Identify key Catholic scientists such as Copernicus, Mendel, DaVinci, Bacon, Pasteur, Volta, St. Albert the Great, and others and the witness and evidence they supply against the false claim that Catholicism is not compatible with science.
DOA.CSS.712.IS12	Analyze and articulate the Church's approach to the theory of evolution.

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Standard	Description
DOA.CSS.712.IS13	Relate how the human soul is specifically created by God for each human being, does not evolve from lesser matter, and is not inherited from our parents.
DOA.CSS.712.IS14	Explain how understanding the physiological properties of a human being does not address the existence of the transcendent spirit of the human person (see Appendix E).
DOA.CSS.712.IS15	Explain the supernatural design hypothesis in terms of the Borde-Vilenkin-Guth Proof, the Second Law of Thermodynamics, entropy, and anthropic coincidences (fine tuning of initial conditions and universal constants) (see Appendix E).
DOA.CSS.712.IS16	Articulate the details of the Galileo affair to counter the assumption that the Church is anti-science.
DOA.CSS.712.IS17	Demonstrate an understanding of the moral issues involving in vitro fertilization, human cloning, human genetic manipulation, and human experimentation and what the Church teaches regarding work in these areas.
Dispositional Standards	
DOA.CSS.712.DS1	Display a deep sense of wonder and delight about the natural universe.
DOA.CSS.712.DS2	Share how natural phenomena have more than a utilitarian meaning and purpose and exemplify the handiwork of the Creator.
DOA.CSS.712.DS3	Subscribe to the premise that nature should not be manipulated at will, but should be respected for its natural purpose and end as destined by the creator God.
DOA.CSS.712.DS4	Share concern and care for the environment as part of God's creation.
DOA.CSS.712.DS5	Adhere to the idea of the simultaneous complexity and simplicity of physical reality.

Best Practice Suggestions for Science in Catholic Schools

- Present scientific concepts from a superordinate (whole view) perspective before breaking them down into subordinate concepts. This approach (whole to part) can manifest itself in the alignment of courses of study (general biology in younger grades to micro-biology in high school) to the organization and presentation of curricular materials (superordinate concepts first then parallel and underlying concepts).
- Incorporate nature notebooks for observation to facilitate opportunities of wonder and awe (K-6).
- Formation of set groups of teachers at workshops designed to address scientific issues of human and cosmic origin from philosophical and theological perspectives (i.e., religion and science teachers, religion and math teachers, and religion and literature teachers). These groupings are to facilitate dialogue and build an inter-disciplinary culture within the school. This will allow theology teachers to address scientific topics from a theological perspective as they are concurrently being taught in the science classroom.
- Avoid interjection of theological doctrine into scientific inquiry in older grades. Consider incorporating a course designed specifically for the discussion of topics of faith and reason.
- Supplement all science textbooks with biographies of Catholic scientists, such as Copernicus, Mendel, Bacon, St. Albert the Great, and so forth.
- Consider using an apologetic approach based on facts and evidence (7-12) (Magis Center materials).

[\(See Appendix E for Resources\)](#)