

TITLE: Dr. Strange and the Multiverse of Faith and Science

SCHOOL NAME: Central Catholic HS, Lawrence MA

OUR TOPIC IS: Genesis 2: Human Creation and Human Evolution

DESCRIPTION: This lesson is aimed to help students understand the complementary nature of human creation and human evolution by using the modern popular culture reference of the 2016 movie *Dr. Strange*. At the end of this lesson, students will be able not only to explain the nature and faith and science with respect to the human being, but will also be able to analyze popular culture references with respect to their accuracy in portraying the relationship between faith and science. This lesson is ideally suited for religion classes that focus on Scripture or Faith and Science, but could also be used as a supplementary lesson to a biology class on evolution.

ESSENTIAL QUESTIONS

1. A. What is the relational unity between faith and reason when discussing human evolution?
B. What does it mean to say “God as Creator”?
2. Popular culture can be both beneficial and detrimental to one’s understanding of faith and scientific topics; how can popular culture references, specifically movies, help deepen our understanding of how faith and evolution are able to coexist?

METHOD

- I. Lesson Timing
 - A. 3-4 class days
 - B. One class day is 60-65 minutes
- II. Lesson Plan Structure: DAY 1 (Human Creation in Genesis 2)
 - A. Quick survey about student views of a possible conflict between evolution and Catholicism. (Distribute document in RESOURCES, could be transformed into a Google Form, Quizlet, Survey Monkey, Socrative, etc)- approximately 5 minutes
*Optional- show the class the results of the survey
 - B. Discussion “Can you accept the Theory of Evolution and still be a Catholic?”- approximately 10-15 minutes
 - C. Read Genesis 2:4-25; have students read by themselves first and then have the class as a whole read it aloud together. (RESOURCE- Bible)- approximately 10 minutes
 - D. In small groups, have students make a list of observations they made from the reading. Then come back together as a large group and share their findings; the teacher should not respond to questions yet so that students can personally work through questions. Approximately 15 minutes
 - E. Use Christopher Baglow’s *Creation* pages 70-71 (RESOURCE) to discuss the historical background of Genesis 2. Last 15 minutes

F. HOMEWORK/ASSESSMENT (formative): How does learning the historical context of Genesis 2 impact the way you understand it? In your response, touch upon what it is that you actually understand about Genesis 2. Minimum 5 complete sentences.

III. Lesson Plan Structure: DAY 2 (Human Evolution)

A. Ask students to share any insights they made on the previous night's assessment. To conclude this brief discussion, make sure to point out: humans are intentionally made for a purpose; creation is good; humans were given a task to care for the Earth; there is one God who is not in competition with others; all humans come from the same earth and gained their spirit from the one God. Approximately 5-10 minutes

B. Brief Lecture: Who was Darwin, what are his tenants of natural selection, evolution as the result of natural selection (RESOURCE- textbook *Faith, Science, & Reason; Theology on the Cutting Edge* Chapter 8, section B)- Approximately 20 minutes

C. RESOURCE: Watch "Biological Evolution and the Kinship of All Life" (<https://sciencereligiondialogue.org/resources/biological-evolution-and-the-kinship-of-all-life-2/>) (round to 10 minutes)

D. In a large group discussion, call on 3-4 students to share a thought about the video; transition to human evolution as the focus (approximately 5 minutes)

E. Students should have access to a mobile device (iPad, Chromebook, computer, cell phone, etc) and go to <https://humanorigins.si.edu/>. Go to: Human Evolution Evidence, then Human Fossils, then Species. For approximately 10 minutes, should should observe similarities and differences between the species on this website. Students should note physical traits in the skull such as shape of the skull, eyes, ears, presence of hair, etc. During the last 5 minutes, have students discuss as a class these similarities and differences, finishing with the primary difference between *Homo sapiens* and other species is the presence of the soul and rational thinking.

F. HOMEWORK/ASSESSMENT (formative): RESOURCE (textbook) on page 235, question 1: "Watch the video 'To Be Human' mtfresources.org. Relate the video to the picture of human origins given in Genesis 2:7"

IV. Lesson Plan Structure: DAY 3-4 if needed (Pop Culture Connections)

A. Begin class by distributing white paper to each student; using their homework from the night before, students should be instructed to create a visual interpretation of their written homework. Drawing should take 10-15 minutes with 5 minutes to discuss.

*Option for the teacher to extend this upwards of 30 minutes, depending on how much the students would like to share.

B. Transition into how we can see these connections in modern popular culture. Begin by showing the following clip from the 2016 movie *Dr. Strange*: <https://youtu.be/TiRFUYfqr4E> (5 minutes)

C. In half of the small groups, students should discuss the analogy of the various ways of perceiving a human with respect to how it connects to human creation and human evolution.

The other half of the small groups should discuss if you agree/disagree with the following quote from the clip and why: "I reject it because I do not believe in fairy tales...there is no such thing as spirit! We are made of matter and nothing more. You are just another tiny, momentary speck within an indifferent universe" (10-15 minutes)

D. Come back together as a large group to first share thoughts and insights from the small group discussion. Be sure to mention the point that in this pop culture reference (leaving aside the chakra reference, but including the scientific images), it shows many pictures that discuss the same human but answer different questions. (10 minutes)

E. Share the following information with the students BEFORE the large group discussion (RESOURCE: Baglow, "Faith, Reason and Science: Theology on the Cutting Edge" 2nd edition, pages 193-194): The Catholic church has never condemned the theory of evolution. Quotes to support this (5 minutes):

- a. "This is the gist of the theory of evolution as a scientific hypothesis. It is in perfect agreement with the Christian conception of the universe." -Catholic Encyclopedia, 1909
- b. "Mr. Darwin's theory need not be atheistical, be it true or not; it may simply be suggesting a large idea of Divine Prescience and Skill" -Cardinal John Henry Newman, 1868
- c. "The Bible is not a textbook of science, and, therefore, cannot rightly be quoted either for or against evolution." - "The Question Box", a Catholic answers book, 1929

F. Discuss as a large group - how do Genesis 2 and Evolution offer 2 complementary perspectives about what it means to be human? (Until the end of class, add more time as needed)

Be sure to make the following points:

1. Genesis 2 is not a scientific text but a symbolic one
2. Both evolution and Scripture discuss the same humans but answer different questions.
3. A Catholic perspective on evolution reminds us that science can never prove/disprove the existence of the human soul, which is spiritual and given to us directly by God.

G. HOMEWORK/ASSESSMENT (summative): Propose and explain another pop culture reference that can help us understand the relationship between the topic of Creator God and human evolution— students should be given a week (approximately)

RESOURCES

SURVEY (Day 1):

1. The theory of evolution is not compatible with Catholic belief.
Strongly agree agree uncertain disagree strongly disagree
2. The progress of science has made religion less and less useful for understanding our lives
Strongly agree agree uncertain disagree strongly disagree
3. Science and the Scriptures conflict with each other.
Strongly agree agree uncertain disagree strongly disagree
4. Science and faith complement each other and offer a fuller picture of the universe than either can alone.
Strongly agree agree uncertain disagree strongly disagree
5. Science and faith are, by nature, conflicting ways of looking at the world. To affirm one means to deny the other.
Strongly agree agree uncertain disagree strongly disagree

Homework Day 1 Rubric

| Description | Points Earned | Teacher Comments |
|--|-----------------------|------------------|
| Minimum of 5 complete sentences | _____ out of 2 points | |
| Describe what you understand about Genesis 2 | _____ out of 4 points | |
| Describe how learning the historical context of Genesis 2 impact the way you understand it | _____ out of 4 points | |

Homework Day 2 Rubric

| Description | Points Earned | Teacher Comments |
|--|-----------------------|------------------|
| Minimum of 5 complete sentences | _____ out of 2 points | |
| Reference to the video; appropriate and accurate referencing. | _____ out of 4 points | |
| Connection to Genesis 2; appropriate and accurate referencing. | _____ out of 4 points | |

Homework Day 3 (Summative) Rubric

| Description | Points Earned | Teacher Comments |
|---|------------------------|------------------|
| Identify one applicable pop culture reference | _____ out of 5 points | |
| Explain how this reference can help us to understand the relationship between a creator God and human evolution (how events can have more than one cause or that the how and the why of a phenomena or situation can be distinct) | _____ out of 15 points | |
| Clear evidence that the student understands that belief in a creator God and human evolution are not in conflict | _____ out of 5 points | |

READINGS AND VIDEOS

Genesis 2:4-25

Baglow, Christopher. "Creation: A Catholic's Guide to God and the Universe". Ave Maria Press. 2021. Especially see pages 70-71

Baglow, Christopher. "Faith, Science, & Reason; Theology on the Cutting Edge". Midwest Theological Forum. 2nd edition, 2019. Chapter 8, section B

Video: "Biological Evolution and the Kinship of All Life"

(<https://scienceligiondialogue.org/resources/biological-evolution-and-the-kinship-of-all-life-2/>)

Website: Smithsonian National Museum of Natural History, "What Does it Mean to Be Human?"

<https://humanorigins.si.edu/>

Video: "To Be Human" mtfresources.org

Video: "Doctor Strange Meets the Ancient One" (clip) <https://youtu.be/TiRFUYfqr4E>

TEACHER BACKGROUND

Podcast: "Word on Fire Show", Episode 308 "Adam, Eve and the Fall"

<https://www.wordonfireshow.com/episode308/>

Short Article: "Doubting Thomas?" - on Aquinas' view of the human soul:

<https://www.commonwealmagazine.org/doubting-thomas>

OPTIONAL RESOURCES ON HUMAN EVOLUTION

Videos:

<https://www.youtube.com/watch?v=ehV-MmuvVMU> 3:45 nat geo – human origins

<https://www.youtube.com/watch?v=7TCX0INjy4A> 3:45...overview of how homo sapiens overlapped with other hominin species

<https://www.youtube.com/watch?v=ANNQKKwWGk> PBS 12 mins “The Humans Who Came Before Us”

<https://www.youtube.com/watch?v=DZv8VyIQ7YU> 6 mins, from American Museum of Natural History

<https://ndfaithscience.com/resources/chris-baglow-phd-blambos-cave-or-bethlehem-faith-science-human-origins> Chris Baglow on Blambos cave (one hour)

“Cave of Forgotten Dreams” documentary TRAILER

https://www.imdb.com/video/vi150641433?playlistId=tt1664894&ref=vp_next_btn

<https://www.youtube.com/watch?v=YNQPQkV3nhw> 9 mins – Chromosomal Adam and Mitochondrial Eve

Websites and Articles

<https://www.nhm.ac.uk/discover/the-origin-of-our-species.html> (chart)

https://humanorigins.si.edu/evidence/human-fossils/species?sort_by=field_age_timeline_maximum_value

Blombos Cave;

<https://www.nationalgeographic.com/science/2018/09/news-ancient-humans-art-hashtag-ochre-south-africa-archaeology/#close>

KNOWLEDGE

1. Describe God's creation of humans in Genesis 2:7
2. Differentiate natural selection (mechanism) from evolution (results of natural selection)
3. Articulate how a proper reading of Genesis 2 shows that it compliments rather than conflicts with the Theory of Human Evolution
4. Compare the scene in Dr. Strange with our understanding of how faith and science complement each other (<https://youtu.be/TiRFUYfqr4E>)

SKILLS

1. Evaluate why we need both faith and science for our understanding of human creation/evolution
2. Propose and explain another pop culture reference that can help us understand the relationship between the topic of Creator God and human evolution
3. Analyze a pop culture reference that shows the conflict between faith and science and analyze the flaws in the root of the conflict
4. Create an explanation as to why we need both faith and science for our complete understanding of human creation and human evolution

STANDARDS

USCCB:

Core Curriculum:

1. The Revelation of Jesus Christ in Scripture

II. About Sacred Scripture

A. Divine Inspiration.

1. Inspiration is the gift of the Holy Spirit by which a human author was able to write a biblical book which really has God as the author and which teaches faithfully and without error the saving truth that God willed to be consigned to us for our salvation (CCC, nos. 105, 135).
2. Since God inspired the biblical writers, he is the author of Scripture (CCC, nos. 105-106, 136).
3. Because the human authors needed to use the language and thinking of their time, we need to study the conditions and use of language in the context of their time and understand what they intended to communicate, remembering that these human authors might not have been conscious of the deeper implications of what God wanted to communicate (CCC, nos. 106, 108-114).
4. The Bible is inerrant in matters of Revelation and faith: because God is the author of Scripture, all the religious truths that God intends to reveal concerning our salvation are true; this attribute is called “inerrancy” (see DV, no. 11; CCC, no. 107).

III. Understanding Scripture

B. Criteria for interpreting the Sacred Scripture (CCC, nos. 109-114, 137).

1. Read and interpret Sacred Scripture within the tradition and teaching of the Church.
2. Give attention both to what the human authors intended to say and to what God reveals to us by their words.
3. Take into account the conditions of the time when it was written and the culture where it was written.
4. Read and interpret Sacred Scripture in the light of the same Holy Spirit by whom it was written (DV, nos. 12-13).
5. Read and interpret each part of Sacred Scripture with an awareness and understanding of the unity of the content and teaching of the entire Bible.
6. Be attentive to the analogy of faith, that is, the unity that exists in all Church teaching.

C. Senses of Scripture (CCC, nos. 115, 118-119).

1. The literal sense: the meaning conveyed by the words of Scripture and discovered by exegesis (CCC, nos. 109-110, 116).
2. The spiritual sense (CCC, no. 117).
 - a. Allegorical sense: recognizing the significance of events in the Bible as they relate to Christ.
 - b. Moral sense: Scripture teaches us and encourages us how to live and act.
 - c. Anagogical sense: Scripture speaks to us of eternal realities.

D. The Bible in relation to science and history (CCC, nos. 37, 159, 1960).

1. The Church teaches us how to relate truths of faith to science.

2. There can be no conflict between religious truth and scientific and historical truth (CCC, no. 159).
3. The difference between the Catholic understanding of Scripture and that of those who interpret the Bible in an overly literalist, fundamentalist way or with an approach limited to a symbolic understanding.

VI. Challenges

C. Is the Bible always literally true?

1. It depends on what one means by “literally.” The Church does not always propose a literalist or fundamentalist approach to Scripture but rather a contextualist approach. The Church teaches that all of Scripture is true on matters pertaining to religious and salvific teaching because it is inspired by God for that purpose (CCC, nos. 107, 116).
2. The Bible has a definite historic basis for events recounted in both the Old and the New Testaments; the Church particularly upholds the historicity of the Gospels (CCC, no. 126). However, the Church does not claim that the Bible’s purpose is to present scientific or historical facts (CCC, no. 107).
3. The Church gives guidelines for interpretation of Sacred Scripture.

3. The Mission of Jesus Christ (The Paschal Mystery)

I. The Goodness of Creation and Our Fall from Grace

A. The Creation of the World and our first parents (CCC, nos. 54, 279-282).

1. Revelation as found in the book of Genesis.
 - a. Understanding literary forms in Scripture (CCC, no. 289).
 - b. Genesis 1–11 conveys religious truth rather than science (CCC, nos. 283-289).
 - c. The book reveals truth about which science and history can only speculate.
 - d. Scripture’s use of figurative and symbolic language in Genesis 1–11 (CCC, nos. 362, 375, 390, 396).
2. The Trinitarian God is the Creator of all; all creation reflects the glory of God (CCC, nos. 290-295, 301).
3. God created all that is, seen and unseen.
 - b. Seen or visible world (CCC, nos. 349-357).
4. Human beings as the summit of creation.

Option A: Sacred Scripture

I. Divine Revelation: God Speaks to Us

A. God’s self-Revelation in words, deeds, covenants (CCC, nos. 50-53).

1. Stages of Revelation (the history or divine plan of salvation) (CCC, nos. 54-55).

C. Sacred Scripture (CCC, nos. 101-133).

1. God is author—guarantees its truth about salvation (CCC, nos. 101-108).
2. Word of God in words of man—literary forms—schools of biblical criticism or analysis.
3. Principles of interpretation (CCC, nos. 112-114).
5. Senses of Scripture: literal; spiritual: allegorical, moral, anagogical (CCC, nos. 115-119).
6. Role of Scripture in the life of the Church (CCC, nos. 131-133).

II. The Pentateuch or Torah—First Five Books of Scripture

A. Genesis, Exodus, Leviticus, Numbers, Deuteronomy.

1. A major theory of the formation of these books is that they rely on several sources—primarily four: Yahwist, Elohist, Priestly, Deuteronomist (J, E, P, D).
2. Any and all parts of Scripture must be read and interpreted in relation to the Whole.

B. Book of Genesis.

1. Primeval history: 1–11—creation, Adam and Eve, the fall, promise of redemption, and effects of sin told in figurative language (CCC, nos. 337, 362, 375; Compendium, nos. 51-78).
2. Faith teachings in primeval history (NAB, Introduction).

Option B: History of the Catholic Church

II. History of Church in Post-Apostolic Times

9. The Age of Enlightenment

- #### A. Rationalism, scientific model, Deism—Descartes, Voltaire, Rousseau.

15. Vatican Council II: A Pastoral Approach to the World

D. Some developments after the Council.

3. Developments in catechesis; understanding the need for both content and formation.

Option E: Ecumenical and Interreligious Issues

I. Revelation and the Catholic Church

A. Tracing Divine Revelation through the history of salvation.

1. Divine Revelation in the Old Testament times.

- a. The Triune God is revealed in the work of Creation, which originates with the Father and is brought into being through the Word (Jesus Christ) by the power of the Holy Spirit (CCC, nos. 282, 314).

NGSS:

HS-LS4-1. Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.

HS-LS4-2. Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment .

ASSESSMENTS

Day 1 HOMEWORK/ASSESSMENT: How does learning the historical context of Genesis 2 impact the way you understand it? In your response, touch upon what it is that you actually understand about Genesis 2. Minimum 5 complete sentences. Grading Rubric in the RESOURCE section.

Day 1 Homework Rubric

| Description | Points Earned | Teacher Comments |
|--|-----------------------|------------------|
| Minimum of 5 complete sentences | _____ out of 2 points | |
| Describe what you understand about Genesis 2 | _____ out of 4 points | |
| Describe how learning the historical context of Genesis 2 impact the way you understand it | _____ out of 4 points | |

Day 2 HOMEWORK/ASSESSMENT: RESOURCE (textbook) on page 235, question 1: “Watch the video ‘To Be Human’ mtfresources.org. Relate the video to the picture of human origins given in Genesis 2:7” Minimum of 5 complete, well-thought out sentences. Grading Rubric in the RESOURCE section.

Day 2 Homework Rubric

| Description | Points Earned | Teacher Comments |
|--|-----------------------|------------------|
| Minimum of 5 complete sentences | _____ out of 2 points | |
| Reference to the video; appropriate and accurate referencing. | _____ out of 4 points | |
| Connection to Genesis 2; appropriate and accurate referencing. | _____ out of 4 points | |

Day 3/ Extended Time Assignment HOMEWORK/ASSESSMENT: Propose and explain another pop culture reference that can help us understand the relationship between the topic of Creator God and human evolution– students should be given a week (approximately) Grading Rubric in the RESOURCE section.

| Description | Points Earned | Teacher Comments |
|---|------------------------|------------------|
| Identify one applicable pop culture reference | _____ out of 5 points | |
| Explain how this reference can help us to understand the relationship between a creator God and human evolution (how events can have more than one cause or that the how and the why of a phenomena or situation can be distinct) | _____ out of 15 points | |
| Clear evidence that the student understands that belief in a creator God and human evolution are not in conflict | _____ out of 5 points | |