# TITLE: What Makes Humans Unique

# TOPIC: How the Phenomenon of Symbolic Language Reveals Humanity’s Disposition for God

# DESCRIPTION:

This lesson seeks to show how the ordinary, everyday phenomenon of language reveals humanity’s extraordinary disposition for truth and, accordingly, for God. We will first explore how human language has set us apart from other animals, including our close evolutionary cousins. Then, we will define the rational soul of the human person as our spiritual capacity for objective understanding, and see how this intangible anthropological reality is discernible in our *symbolic* language – a spiritual capacity that allows us to know things as they are. In the final section of this lesson, we will consider how this capacity orients us to dialogue with Truth itself – with *God* – who does not ignore our desire for him, but responds by graciously revealing himself to us truth-seeking creatures through Jesus Christ, God’s Word spoken to us.

This can be used in a high school biology class, or easily adapted to a theology class. The lesson-unit is most appropriate for students who have studied the mechanisms of the theory of evolution, and are sophomore and up. It should take three 50-minute class periods to complete.

# ESSENTIAL QUESTIONS:

1. How does the unique phenomenon of *symbolic language* (and its supporting anatomical structures) set humans apart from our close evolutionary cousins and other animals?
2. How is *the rational soul* of the human person discernible in her capacity for and use of symbolic language?
3. How does the human phenomenon of symbolic language reveal humanity’s orientation toward God?

# **The KNOWLEDGE that students participating in our lesson will gain is** (include a maximum of 4)**:**

1. The human person’s unique anatomy and distinct capacity for symbolic language makes possible an orientation toward truth-seeking.
2. Our capacity for symbolic language has likely played a key role in the evolutionary success of our species.
3. Our symbolic language is one of the primary means by which humanity comes to *know* the truth of creation and its divine Creator.
4. The human desire for truth is not met with silence, but with a response from God: Jesus Christ, the Incarnate *Word* of God, who reveals the truth of creation.

# The SKILLS that students participating in our lesson will gain will be:

1. Articulate how humanity’s capacity for symbolic language has contributed to the success of our species.
2. Define natural reason and identify how it is discernible in human language.
3. Describe how human language is distinctly symbolic.
4. Reflect on how symbolic language – as a hallmark of the human spirit – reveals our orientation toward God.
5. Articulate how symbolic language is a primary means by which God speaks to us and we come to know and love him.

# METHOD:

## Lesson Timing: three 50-minute periods

1. Day 1: cultivate student curiosity about human uniqueness by identifying the singularity of the human species in our evolutionary history
2. Day 2: identifying the distinctive spiritual or rational nature of humanity and discerning it in the phenomenon of human language
3. Day 3: showing how the symbolic capacity of humanity is evidence of our orientation toward the Triune God and inspire spiritual reflection in the students on their relationships with God

## Lesson Plan (with Teacher Script)

### Day 1: Introducing Human Uniqueness in Evolutionary History

#### Part 1: Administer Pre-test (5 minutes)

#### Part 2: Brainstorm session on what makes humans unique (Powerpoint, Worksheet & Discussion) (5 minutes)

1. Open PPT (Day 1)
2. Pass out Worksheet 1 for students to use for note-taking
3. **(Slide 1)** In small groups (3-4), respond to this prompt: What do YOU think makes humans (*Homo sapiens*) different from animals?
   1. *Possible answers: bipedal, tool usage, culture, language, no hair, large brain, free will, make jewelry, bury their dead, language, religion, judgment, emotions, pursue meaning, pursue understanding, etc.*
4. Class share – students should add to their list things that they agree with and did not initially write down.

#### Part 3: Videos and Lecture to incite student curiosity on human uniqueness (15-20 minutes)

***Teacher Script:*** In this 2-part video series, scientists discuss how humans survived evolution and survived all other hominid species.

1. Introduce and watch Video #1, part 1: How did we get here?
   * 1. Students consider the question “why are we here and none of the others are?” Review their list from the brainstorm; which traits/behaviors/ structures may contribute to this answer?
2. Introduce and watch Video #1, part 2: How did humans survive evolution?
   * 1. Using their worksheet, students should write down what they think it means to pursue meaning.
     2. Facilitate a class share. Students should add to their list (if they agree).
3. Lecture introducing the unit lesson topic on the question of what makes humans unique.
   * 1. During the lecture (*see script below*): using their worksheet, students should take notes on how the phenomenon of symbolic language sets humans apart from our close evolutionary cousins and other animals.

***Teacher Script / Key for Lecture:***

In this unit, we are going to consider how the phenomenon of symbolic language makes humans unique. Our ordinary, everyday use of language actually represents something revolutionary in evolutionary history. It shows that we, as members of the *Homo sapiens* species, embody a totally new way of *being* in the world.

What does this mean? Like other animals, we humans seek to survive the world; unlike other animals, however, we are also oriented toward seeking the *meaning* of the world and of our place within it. This desire for meaning ultimately reflects our capacity for natural reason or *rationality*. And *symbolic language* is one of the primary ways we humans express and exercise our rationality. Human or SYMBOLIC LANGUAGE then can be defined as systems of symbols (i.e. written words, pictographs, audible sounds) that name and denote intangible meanings about the objects of our perception.[[1]](#footnote-0) Symbolic language allows us to know the world around us and to know its divine Creator. We will explore the spiritual nature of symbolic language in greater depth in our upcoming lessons.

That said, based on what we know from science currently, *Homo sapiens* seems to be the only earthly species that has this symbolic capacity, which has enabled us to seek truth. This seems to have given us an evolutionary edge.

**(Slide 3)** To quote one of the scientists in our video:

"Meaning, whether it was spiritual or philosophical or artistic or scientific, that pursuit of meaning was part of the toolkit that evolved in our species, *Homo sapiens*. And that is absolutely critical in living in a world of uncertainty and disruption."

Where does this difference, then, come from? Why do *Homo sapiens* have the capacity for symbolic thought and language, while others species seem to lack it? We are going to explore the scientific, philosophical, and theological implications of these questions in this unit together.

We'll start, today, with the evolution of our anatomy: our anatomy plays an essential role in making possible our capacity for symbolic language. Some key contributors are our unique vocal tract as well as certain parts of our brain, which we will take a look at together at the end of our lesson. First, we'll look at how we got here, by briefly tracing our evolutionary history…

#### Part 4: Evolution Mini-lesson (15-20 minutes)

1. Students should take notes using the worksheet on the mini-lesson, specifically annotating the images.

***Teacher Script for Evolution Mini-lesson***

**(Slide 4) Image 1**: Natural Selection is one mechanism of evolutionary change. Genetic variation exists within populations (like the mice); some genetic variants may be beneficial (dark fur color) and increase the FITNESS (the ability to produce more offspring that survive) of some organisms. These organisms produce more offspring, thereby passing down the beneficial variation. Any trait/behavior/structure that gives an organism higher fitness is called an ADAPTATION and will be “selected for.”

**(Slide 5) Image 2**: Over time, populations may become isolated (split up) for various reasons, and the isolated populations will accumulate distinct traits/behaviors/structures suited to their specific environment (ex, blue versus yellow butterflies) to the point where they are considered different species 🡪 SPECIATION. When there is no GENE FLOW ( migration into/out of either population) between these isolated populations for thousands of generations (and thus millions of years for many species), we can say that speciation is “complete.” Note, in some cases of speciation, there can still be limited gene flow between distinct species (e.g., humans and Neanderthals); however the offspring of these events usually have lower fitness or cannot reproduce at all, thus maintaining reproductive isolation.

**(Slide 6) Image 3**: We represent speciation events with CLADOGRAMS (or phylogenetic trees), like this cladogram that shows the evolutionary lineage of various types of insects. We can also represent common ancestry with this model. Each branching point is called a NODE and represents both a speciation event AND the last common ancestor between two descendants.

**(Slide 7) Image 4:** If 2 species share a common ancestor, it is likely that they share many traits/behaviors/structures. In this cladogram of primates, you can see the humans, chimps, bonobos, and gorillas share a common ancestor more recently with each other (find the circled node) than they do with orangutans. Humans have the MOST in common (behaviorally, structurally, genetically) with chimps/bonobos because they share a more recent common ancestor. They are our closest LIVING relatives (similar to cousins, not direct ancestors/descendants).

**(Slide 8 & 9) Images 5 & 6:** There are, however, many EXTINCT species with whom we are more closely related 🡪 HOMININS. We share even MORE traits/behaviors/structures in common with these extinct hominins (like *Homo neanderthalensis* and *Homo erectus*). However, we are still a distinct species and survived when they did not. Considering how evolutionary processes work, is it possible that certain parts of our anatomy evolved in such a way that only *Homo sapiens* has the ability to speak and process symbolic language? Experts in the field say YES! However, explaining the timing and exact mechanisms is difficult to determine, since hominin evolution appears to be quite dynamic; scientists are still trying to decipher the correct organization of the hominin evolutionary tree (see Figure #6). Regardless of the variety of hominin species that have existed, modern day humans are still the ONLY hominins to survive, and many believe it is due to our capacity for speaking and processing symbolic language.

#### Part 5: Homework assignment (Worksheet 1, Audio & Article)

1. **Students listen to the audio segment from NPR…** “[From Grunting to Gabbing](https://www.npr.org/2010/08/11/129083762/from-grunting-to-gabbing-why-humans-can-talk#:~:text=Archive%2FGetty%20Images-,As%20humans%20evolved%2C%20our%20throats%20got%20longer%20and%20our%20mouths,appeared%20about%2050%2C000%20years%20ago.)” This will allow students to connect WHEN the anatomy that allows for symbolic language first appears in our evolutionary history.
   * 1. You can provide the transcript to students if you choose. They can annotate the transcript OR take notes on the provided worksheet; then they will answer the 3 questions that follow:
     2. When (how long ago) did our vocal tract anatomy evolve to give us the kind of vocal control & flexibility we see in humans today?
        + *ANSWER: about 50,000 years ago*
     3. Compare this time point to the evolutionary tree in Figure #6. In addition to Homo sapiens, what hominin species existed at this point in time?
        + *ANSWER: H. neanderthalensis, H. floriensis*
     4. Name another important structure that would have to **differ** between humans and these other hominins (mentioned in question #2) to allow for the evolution of symbolic language that most likely differentiates these species?
        + *ANSWER: hopefully they say BRAIN, but some could say EARS/ANATOMY FOR HEARING/LISTENING*
2. **Students read the abstract from this paper on Neanderthal brain anatomy:** [**Reconstructing the Neanderthal brain**](https://www.nature.com/articles/s41598-018-24331-0)
   * 1. There is an alternate article if the abstract is too technical: [Could Neanderthals Speak?](https://mindmatters.ai/2024/05/could-neanderthals-speak-it-depends-on-who-you-talk-to/)
     2. According to the abstract/article, what is different between the brains of Neanderthals and the brains of modern-day humans?
        + *ANSWER: Homo sapiens have a relatively larger cerebellum but a smaller occipital region in the cerebrum than Neanderthals. The Neanderthals had a relatively large occipital lobe (devoting more brain matter to visual processing and making less available for other tasks such as language).*

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### Day 2: The Reason for Human Uniqueness: Rationality and its Expression in Symbolic Language

* *Note for Teacher: there are two optional activities in Day 2. The first is in Part 2: a Powerpoint, Video and Discussion segment on linguistic differences between animals and humans. The second is a Homework Assignment on the question of dolphin rationality. These optional activities would be well-suited for a science class or (for the homework especially) a morality class.* 
  + *If you are interested in making the time for the optional segment on linguistics in Part 2: we suggest spending less time with Part I (i.e. keeping the Thomistic Institute video, but shortening the lecture material and skipping the discussion).*

#### Part 1: Bellringer (10 minutes)

1. **Facilitate a small group discussion (groups of 3-4) to review Day 1’s lesson:** Given what you learned about evolution, the human vocal tract, and the human brain, consider that symbolic language came to exist in *Homo sapiens*, but NOT in animals or even other hominins. Respond to the following:
   * 1. How does the unique phenomenon of *symbolic language* (and its supporting anatomical structures) set humans apart from our close evolutionary cousins and other animals (ie, could symbolic language have given *Homo sapiens* an advantage that could explain why *Homo sapiens* survived while all other hominids died out)?
     2. How does having the capacity for symbolic language allow us to pursue meaning?
        + *NOTE: to help get things started, you could mention the idea that symbolic language may be linked to other traits: our ability for self-reflection, awareness of other minds, mental time-travel, spirituality, artwork, music, social structures, culture, etc.*
     3. Students should write a 2-3 sentence response on a notecard; collect this as a summative assessment for Day 1’s lesson.

#### Part 2: Natural Reason Mini-Lesson (Powerpoint, Video & Worksheet 2) (20 minutes)

1. Open PPT (Day 2)
2. Pass out three handouts:
   * 1. Worksheet 2for students to use for note-taking
     2. Handout 3 Homework Mental Mapfor assigned work (due on Day 3)
     3. Handout 3 Example Mental Map (For Students)
3. Teacher introduces Natural Reason and has students take notes on the mini-lesson, using worksheet.
   * 1. Advise them to fill out the Core Concepts section as they listen through class.
     2. Teacher is welcome to invite student participation throughout lecture.

***Teacher Script / Key for Worksheet Questions:***

**(Slide 1)** Introduction: Yesterday, we saw how our desire for meaning and our capacity for language are made possible by our anatomy and integral to our evolutionary history.

Today, we are going deeper: first, we will identify where this uniquely human desire for meaning comes from and what it is ultimately made for. Then, to see this in action, we’ll take a closer look at how human symbolic language and animal communication differ from one another.

**(Slide 2)** Our unique ability to seek the truth of the world comes from our capacity for *reason*. Yesterday, we saw some of the key anatomical features that make humans *human*. Now, we will consider the deeper *ontological* difference between humans and animals – that is, how we are not only different in what we look like or how we act, but in *our very being* because we have natural reason. This is what ultimately sets us apart from even the most intelligent of animals (more on that soon!).

What is natural reason then? NATURAL REASON (also called *rationality*) has been described as humanity’s capacity for objective understanding: we have the ability to go beyond our immediate interests and needs, and perceive ourselves and others as beings in their own right.[[2]](#footnote-1) To know things *as they are*, not just how they relate to us.

Let’s read this quote about the meaning of natural reason together.

**(Slide 3)** “I do not just feel, I can also examine my feelings, approach them "objectively," interpret them. I am not completely immersed in my world, I can look at it, can change it, compare it with other things, and can stand over against it in a critical spirit. I can think about it as well as about myself. This power cannot derive from animated matter, which cannot consider itself and stand over against itself.”

Our capacity for reason is not like any other biological capacity of ours – like eating, walking, or experiencing emotions. While all animals are defined by their bodies, humans have a special kind of body that allows us to transcend what we experience on a bodily level.

We can put this in context. While a monkey, for example, will only tend to its immediate environment – seeking out food, tending to its children, keeping its group safe from predators – only a human being will take interest in the genome of monkeys and write books to deny that he is different from the animals![[3]](#footnote-2) Animals are limited to their biology and therefore can only *react* to their environments; humans can not only react to their environments, but seek to *understand* them.

##### **(Slide 4)** Watch Video: Evolution and Creation (Thomistic Institute) (5:28 minutes)

* 1. Using your worksheet: according to the video, how do dogs and humans perceive things differently?
  2. After video: have students discuss what they wrote down with the person next to them.

1. Review key take-aways (listed below) and invite student participation.
   1. Have students take notes on worksheet.

***Teacher Script / Key for Worksheet Questions:***

So, what makes humans distinct from other animals? Our capacity for reason makes us distinct. Because of our rationality, humans have the capacity to understand the meaning of things in and of themselves. By virtue of our natural reason, we can abstract from matter its nature: we can know what a tree or human is *in general*. We’ll consider examples of this in a few moments.

Where does natural reason come from? On the one hand: the human body is created in such a way that makes possible our spiritual capacity for reason. As we learned about in our last lesson together for instance, our unique brains and vocal tracts – which work in harmony together – are integral to our exercise of reason. This is important because, unlike other animals – who just react to the world immediately around them, human acts of understanding transcend matter: they belong to the realm of our spirit. The human body is, therefore, uniquely made for a rational, spiritual soul, which makes possible our capacity for understanding.

On the other hand, however: the body, on its own, cannot create a spiritual soul. Only spirit can generate spirit. So, Catholics understand natural reason – which is an immaterial, spiritual capacity – as given to us by God, who is pure spirit.[[4]](#footnote-3)

In sum: what it means to be human (unlike being an animal) cannot be reduced to our brain activity or our vocal tract, or any one part of the human body. The human body is made for a natural reason – a spiritual capacity which is given to us by God. Our reason allows us to understand things as they are – that is, to abstract from them their intangible, spiritual meaning. By exercising our reason, we can transcend our biological capacities. One of the everyday ways we do this is through our unique use of symbolic language, which we will explore in a few moments.

**(Slide 5)** In the history of evolution, we are the first material creature of our kind for whom being spiritual is our natural state. Humans are *rational animals*.

Lastly, what is our reason for? We were given rationality not to just accumulate endless knowledge about the world; rather, our rationality is what allows us to come to know the Creator of that world, and therefore makes possible our ability to love him and one another.[[5]](#footnote-4) Our capacity to know and to love, made possible by our spiritual, rational soul, is what makes each and every human person an IMAGE OF GOD. Our natural reason thus is created for our communion with God. By virtue of our God-given spiritual, rational soul, we are made to understand the truth of creation, so that we may know and love creation’s Creator and all his creatures therein.

#### Part 2: Mini Lesson on Signs of a Rational Soul – A Brief Look at the Human Phenomenon of Symbolic Language (Powerpoint, Optional Video & Worksheet) (5 minutes, or 15 minutes with the inclusion of the optional activity)

***Optional Segment on Human Language vs. Animal Communication (Powerpoint and Worksheet)***

* *Note for Teacher: this optional segment identifies linguistic distinctions between human language and animal communication. It would be well suited for a science class.*

**(Slide 6) *Teacher Script***

Language allows us to exercise our spiritual capacity for natural reason: through language, we can know things about others and God. To see how symbolic language is distinctly spiritual, we compare human language to animal language.

##### **(Slide 7)** Watch: Do Animals Have Language? (TED-Ed) (4:55 minutes)

* 1. During the video: have students take notes on the worksheet on the four characteristics of language that the video highlights.

#### (Slide 8) After the video: have students write down on the handout what they learned about human language from the video.

##### Discuss the key takeaway of video with the class, inviting student participation.

***Teacher Script / Key for Worksheet Questions:***

Four common markers of language highlighted in the video:

* Discreteness: a set of individual units (i.e. sounds or words) that can be combined to communicate new ideas
* Grammar: a system of rules that tells you how to combine those individual units
* Productivity: the ability to use language to create infinite number of messages
* Displacement: the ability to talk about things that are not right in front of you

Only humans exhibit all four traits. These features of human language (and the biological and neurological processes that ground them) allow us to think and speak about imaginary worlds or abstract concepts, while only animals can communicate about things related to their immediate environments. Human language is infinitely open, making it possible for us to exercise our rationality – that is, to understand things as they are.

So do animals have language? They have *systems of communication*. But they *do not have language* in the way that we humans have it. Let’s take a closer look at what the experience of human language entails, to see how it expresses our spiritual nature.

***End of Optional Segment***

#### Teacher introduces the concept of symbolic language and has students take notes on the mini-lesson, using a worksheet. (5 minutes)

**(Slide 9)** Language allows us to exercise our spiritual capacity for natural reason: through language, we can know things about others and God. We’ll look at how this works now.

While in animals, sounds and gestures become means to communicating biological needs; in the human person, however, sounds and gestures can become carriers of spiritual, intangible meanings. That is to say: sounds and gestures become *symbols*. In the human person, communication becomes language.

Distinctly *human* language then – or SYMBOLIC LANGUAGE can be defined as systems of symbols (i.e. written words, pictographs, audible sounds) that name and denote intangible meanings about the objects of our perception.[[6]](#footnote-5) Symbolic language is one way in which humans express and exercise their rationality: through language, we can come to know the world around us in greater depth. We can discern its intangible, spiritual meaning – the “why” behind its existence.

What does it mean that human language is symbolic? For humans…

* Fire is no longer just a means to seeing in the dark, but a sign of hope in a life beyond our own.
* An apple is no longer just a means of nutrition, but a sign of humanity’s fall into sinfulness.
* And another example…
  + **(Slide 10) Read quote:** “The gazelle knows the lion as a threat; we too are capable of knowing the lion as a threat – and also as a collection of organic compounds, as a symbol of royalty, as maned in males and maneless in females, as a mammal, as threatened with extinction….”

**(Slide 11)** Most of us discover language in early childhood and can’t remember that moment of discovery. Helen Keller, an American author and disability rights advocate who was left deaf and blind from disease in infancy, can actually recount the moment she discovered language. **(Open Slide 12)**

#### Part 3: The Discovery of Symbolic Language (Powerpoint, Worksheet & Handout) (15 minutes)

#### Students should read Handout: “Walker Percy on the story of Helen Keller’s Discovery of Language” using an appropriate reading strategy for your class (silent reading, popcorn, or round style are all appropriate).

#### Students should respond to worksheet questions together.

#### Have a representative from each group share what was discussed. The teacher should record and clarify ideas at the front of the room, and students should add to their notes.

***Teacher Script / Key for Worksheet Questions:***

Before Helen’s discovery of symbolic language, the word ‘w-a-t-e-r’ spelled into Helen’s hand would have just directed Helen toward the the physical substance of water, as it would have for an animal. In such instances, ‘water’ would have just had something to do with drinking or a cup or a faucet – that is, as a means to satisfy a physiological need. This seems to illustrate the kind of knowledge animals have – at least, as far as we know today!

After this moment at the water, however, Helen gets a glimpse of water *as* water (i.e. a wonderful cool something). She is getting a glimpse of the *intangible, spiritual meaning of a created thing*. This is significant because she realizes her human capacity to perceive things as they are – that is, their inner truth.

So, what happens in this moment then? Because she, for the first time, can understand something for what it is, Helen ultimately discovers her capacity for reason – her rational soul. In her discovery of symbolic language, she realizes her humanity.

**(Slide 13)** In sum: Human rationality is discernible in our language, which is uniquely symbolic. Through symbolic language, we humans are able to pursue the truth. If every created thing – whether it’s water, a gazelle, or bread and wine, or you and I – “speaks” silently something about the meaning of life, then symbolic language is one of the primary means by which humans can “hear” what that meaning is. Through our capacity for the symbol, we can *understand and know* the truth of the world.

**(Slide 14)** And when we learn truths about the world – like what animals are, and who my neighbor is, and, most importantly, who created all of us and why – we can *choose* to live in such a way that is in harmony with truth, as God created us to. More on that tomorrow!

#### Part 4: Assign homework

#### Mental Mapping Core Concepts from Worksheets for Days 1 and 2 (Handout 2 and Handout 3) (Due Next Session)

* 1. *Notes for Teacher: you can use Mental Map Assignment Notes (For Teachers)* and *Example Mental Map (For Teachers) as a reference for feedback.*

1. (Optional Assignment) Do Dolphins Have Rational Souls? (Worksheet 3 and Handout 3)
   1. *Notes for Teacher:*
      1. This assignment would be well suited for a science or morality class.
      2. For classes that choose to integrate the *Optional Segment on Human Language vs. Animal Communication* above, this assignment complements that segment well.
   2. Pass out two handouts:
      1. Worksheet 3
      2. Handout 3 (or share the article link – URL below)
   3. Instructions:
      1. Watch Video: [How smart are dolphins? - Lori Marino (TED-Ed)](https://www.youtube.com/watch?v=05PpTqtGhGU&t=1s)
      2. Read Handout 3: [Catholic Bioethicist Addresses the Question of Personhood in Dolphins – Charlie Camosy (Crux](https://drive.google.com/file/d/1_k7yj85NV9JvvJ07KcRO9bz-4n8thN_J/view?usp=sharing))
         1. [Crux Article URL](https://cruxnow.com/commentary/2016/09/dont-need-call-dolphins-persons-show-respect)
      3. Using your notes from today, and the assigned resources, complete the assignment in [Worksheet 3](https://docs.google.com/document/d/1aGwuzFCRtyvSLkq7jz9PtI5iHJqJxSMWCJxwloTvCw0/edit?usp=sharing).

### Day 3: Symbolic Language and the Longing for God

#### Part 1: Submit homework and do an index card submission (12 minutes)

1. Students submit Homework
   1. The students should be graded according to (1) their completion of the task, and (2) effort.
   2. Teacher can use Mental Map Assignment Notes (for Teachers) and Example Mental Map (For Teachers) as a guide for feedback on the students’ mental maps, to ensure the students are following the main connections between concepts, and beginning to think imaginatively about them.
2. (7-10 minutes) Students should respond to the following question on an index card:
   1. Describe how symbolic language expresses the spiritual, rational nature of the human person.
3. Teacher collects this for a formative/summative assessment:
   1. Elements of an ideal response:
      1. Symbolic language involves abstracting spiritual/intangible meaning about the objects of our perception and giving "names" (by way of symbols) that denote the *meaning* about those objects. Symbolic language, therefore, allows us to *understand* the meaning or truth of the world around us – in other words, to exercise our rationality.
   2. Teacher is encouraged to provide feedback on notecards at a later time, to steer students toward the ideal response.

#### Part 2: How Symbolic Language Orients Humanity Toward God (Handout 1, Powerpoint & Discussion) (15 minutes)

1. Open PPT (Day 3)
2. Pass out two handouts:
   * 1. Handout 1 – Excerpt from Confessions by Saint Augustine
     2. Handout 2 – Learning the Language of God (from Catholic Daily Reflections)
3. Today, we will connect the key takeaways from Days 1+2 to Christian vision of the human person by re-introducing the human person as an image of God.

***Teacher Script / Key for Worksheet Questions:***

**(Slide 1)** What is humanity ultimately made for? Our existence as humans – which is defined by our spiritual embodied existence, our desire for meaning, our capacity for symbolic language – might suggest that the world may indeed have a deeper meaning since it has produced the kind of creature who is driven to discover the meaning of that world. We humans – rational animals – want to know why we are here and what we are made for.

Symbolic language makes it possible for us to discern intangible, spiritual meaning in creation. That said, creation does not, on its own, tell us its own meaning. For example, a flower does not tell us why it is here or why it is beautiful. We can learn from scientific study things like *how* the flower is alive, how its color is produced, or from what plants it evolved, but the flower on its own cannot tell us *why* it exists – the *truth* of its existence.

**(Slide 2)** In order to know the “truth” of the flower – and of the whole world and our lives – we are in need of revelation from God. We will look now at this reading from Saint Augustine, which illustrates how creation seems to await a response from God.

1. Students should read the article using an appropriate reading strategy for your class (Silent reading, popcorn, or round style are all appropriate).
2. Have students reflect in their worksheets.
3. Invite students to share their insights (call on 2-3 students)
4. Final lecture connecting rationality, human language, and God.

***Teacher Script / Key for Worksheet Questions***

**(Slide 3)** In the human creature, we find an essential longing for our Creator – for the one who knows why we are all here and what we are made for. We are not just made for survival, like other animals; we are made to know and to love the Creator of the world and all of his creatures. So, our rationality, which is anticipated in the human body and expressed through our distinctly symbolic language, disposes us for *friendship with God and with each other.*

In faith, Catholics believe that humanity’s longing for God is there for a purpose. It has not been met with silence, but with a *Word* from our Creator: Jesus Christ. Jesus *is* the language of God: he reveals to us the “truth” of creation – from the truth of the flowers to the truth of our own lives. And what is that truth? In Jesus, we find that the *truth* of creation is love: a love that is so great, it would take on flesh, and live and die and rise for you and I. Jesus shows us that the meaning of life is friendship grounded in self-giving love, with God, and with each other.

**(Slide 4)** The reason we exist then – to recap: the reason for our long evolutionary history, for our unique vocal tracts and brains, for our rational souls, for our use of language – is the divine, life-giving love of the Triune God, poured out for us on the Cross. All of these key features of human nature orient us toward Truth – toward *God* himself– so that we may be of one heart and mind with the Triune God of Love and in him, with one another, too.

Like Jesus Christ – who is the “Word” of God – we are called to speak God’s language of love with our lives. We are made to be *symbols of God’s love* – that is:*images of God*. To live like Jesus – to live as a friend of God and of each other – means to activate within ourselves “the image of God.”

#### Part 3 (Optional): Final Reflection and Discussion (Teacher can modify this to better suit students’ needs) (Handout 2, Worksheet & Discussion) (10 minutes)

1. Teacher should read Handout: “‘Learning the Language of God' Scripture Reflection” aloud before the class.
2. Have students reflect in their worksheets on the reading.
3. Invite students to share their insights, and facilitate class discussion.

#### Part 4: Administer Post-Test Assessment (10 minutes)

# Our ASSESSMENT SECTION will include the following

**Day 1**

* Pre-test assessment
* Formative, using Worksheet 1’s guiding questions:
  + Small group discussion on human uniqueness
  + Individual reflection on “When did humans become humans?”
  + Individual reflection: annotating Worksheet 1’s diagrams during Evolution Mini-lesson
  + Whole class discussion on evolution mini-lesson
* Summative, reflection after ‘From Grunting to Gabbing: Why Humans Can Talk’ and ‘Reconstructing the Neanderthal brain using computational anatomy’ → responses written on index card and collected by instructor.

**Day 2**

* Formative, using Worksheet 2’s guiding questions
  + Individual reflection on “Evolution and the Creation of Man (Aquinas 101)”
  + Class discussion on human reason during Natural Reason mini-lesson
  + Individual reflection on “Do Animals Have Language?”
  + Small group reading and discussion on Helen Keller’s Discovery of Language
* Summative
  + Homework for Day 2 (Due Day 3): Mental Mapping Core Concepts for Days 1 and 2

**Day 3**

* Summative on how humankind’s use of symbolic language expresses their rationality
  + Responses written on index card and collected by teacher
* Formative, using Worksheet 2’s guiding questions to take notes
  + Individual reflection on excerpt from *Confessions*
  + Whole class discussion on Confessions
  + Individual reflection on scripture reflection
  + Class participation on scripture reflection
* Post-test assessment

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# Resources for Lesson Plan

**Day 1 Resources**

* [Pre-test Assessment](https://docs.google.com/document/d/1EbdTojh5LSVG_r5pVBoZZXSkqtU-vFIfZi2bWwd0k-M/edit?usp=sharing)
* [Worksheet 1: Video & Discussion Notes](https://docs.google.com/document/d/1BT1-gHr12vOitpjjcZh7nq4BrB_bZ0Ca/edit?usp=sharing&ouid=115386397782405051569&rtpof=true&sd=true)
* [Day 1 Powerpoint: Human Uniqueness in Evolutionary History](https://docs.google.com/presentation/d/1apfc68YrBbuisbGJM92u4jNtU1zj62xs7Ra-4RmEE8o/edit?usp=sharing)
* Video Series: [How Did Humans Become Human? (Science and Religion Dialogue)](https://sciencereligiondialogue.org/resources/how-did-humans-become-human-becoming-human-parts-1-2/)
* Homework
  + - Handout 1: [From Grunting to Gabbing](https://www.npr.org/2010/08/11/129083762/from-grunting-to-gabbing-why-humans-can-talk#:~:text=Archive%2FGetty%20Images-,As%20humans%20evolved%2C%20our%20throats%20got%20longer%20and%20our%20mouths,appeared%20about%2050%2C000%20years%20ago.) transcript
    - Handout 2: [Reconstructing the Neanderthal brain using computational anatomy](https://drive.google.com/file/d/15YJTWK5VlMKatciFs9IdjGJnj57myQL3/view?usp=drive_link)
    - Handout 3 (optional): [Could Neanderthals Speak?](https://drive.google.com/file/d/11uD9T6LcPa-_Eh_hbbtPoq2XGlYZHxP9/view?usp=drive_link) article

**Day 2 Resources**

* [Worksheet 2: Video & Discussion Notes](https://docs.google.com/document/d/1Gcs-WlEwFa0asZYY7VIqcd_VGgVqroq9/edit?usp=drive_link&ouid=115386397782405051569&rtpof=true&sd=true)
* [Day 2 Powerpoint: What Makes Humans Unique Among the Animals? – Identifying Key Differences](https://docs.google.com/presentation/d/1yIoCGDARYSdhxZLDp1YQBrMWI15tLq5BxU6ALFCGN8Q/edit?usp=sharing)
* Video 1: [Evolution and the Creation of Man (Aquinas 101)](https://www.youtube.com/watch?v=lmeaLhq7rXs)
* (Optional) Video 2: [Do animals have language? - Michele Bishop (TED-Ed)](https://www.youtube.com/watch?v=_1FY5kL_zXU&t=1s)
* Handout 1: [Walker Percy on the Story of Helen Keller’s Discovery of Language](https://docs.google.com/document/d/1qiIuiZm7qY6F_JUtbwIb8-B_0j0WVaGE0bJ5Yznudsw/edit?usp=sharing)
* Homework
  + For Students:
    - Handout 2: [Mental Mapping Core Concepts](https://docs.google.com/document/d/1kY3dwtATJfg6HUo_nW3QE9OYxDqzkDm-Qg1AvTwNIeU/edit?usp=sharing)
    - Student Reference: [Example Mental Map](https://drive.google.com/file/d/17fMOcl5NTKo8WXsIa6HlrqvPHebivz8C/view?usp=drive_link)
  + For Teachers:
    - [Example Mental Map](https://drive.google.com/file/d/1TbAwcQmQ3mm5qoVOYYduCaw29ymzikPP/view?usp=sharing)
    - [Mental Map Assignment Notes](https://docs.google.com/document/d/1BPVIBsnViIg8gvIu-uyHVyLzU81LsU7YtnhgTyllkG8/edit?usp=sharing)
* (Optional) Homework
  + Worksheet 3: [Do Dolphins Have Rationality?](https://docs.google.com/document/d/1aGwuzFCRtyvSLkq7jz9PtI5iHJqJxSMWCJxwloTvCw0/edit?usp=sharing)
  + Handout 3: [Catholic Bioethicist Addresses the Question of Personhood in Dolphins – Charlie Camosy (Crux](https://drive.google.com/file/d/1_k7yj85NV9JvvJ07KcRO9bz-4n8thN_J/view?usp=sharing))
    - Alternative: [Direct URL to Crux](https://cruxnow.com/commentary/2016/09/dont-need-call-dolphins-persons-show-respect)
  + Video: [How smart are dolphins? - Lori Marino (TED-Ed)](https://www.youtube.com/watch?v=05PpTqtGhGU&t=1s)

**Day 3 Resources**

* [Worksheet 2: Video & Discussion Notes](https://docs.google.com/document/d/1Gcs-WlEwFa0asZYY7VIqcd_VGgVqroq9/edit?usp=drive_link&ouid=115386397782405051569&rtpof=true&sd=true)
* [Day 3 Powerpoint: What is Our Uniqueness For?](https://docs.google.com/presentation/d/1lpTHyz0x42tSzYt166has-ygn4FoeX6y70b4_F-MAVw/edit?usp=sharing)
* Handout 1: [Excerpt from Saint Augustine’s *Confessions*](https://docs.google.com/document/d/1JTbsmGb3dyIT4UD6zzlwbeMsTAlrW9yIDTr7QeYdF4g/edit?usp=sharing)
* Handout 2: [Learning the Language of God' Scripture Reflection](https://docs.google.com/document/d/1qCaMzhiDGHwHY8VQGWE1plW4UlduHOPxR2mBZ0LpMAw/edit?usp=sharing)
* [Post-test Assessment](https://docs.google.com/document/d/1EbdTojh5LSVG_r5pVBoZZXSkqtU-vFIfZi2bWwd0k-M/edit?usp=sharing)

**Additional Resources:**

**Day 1 Supplemental resources about the evolution of language:**

* American Natural History Museum: [Language in the Brain](https://www.youtube.com/watch?v=WK29RAKDzf8)
* NPR: [Evolutionary Roots of Language](https://www.pbslearningmedia.org/resource/nvsn6.sci.bio.language/evolutionary-roots-of-language/)
* Chomsky & Berwick, Why Only Us: Language and Evolution (2016)

**Day 1 Supplemental resources about Neanderthals:**

* [Science and faith: Did Jesus redeem the Neanderthals?](https://catholicherald.co.uk/science-and-faith-did-jesus-redeem-the-neanderthals/)
* [Neanderthals and Homo sapiens had similar auditory and speech capacities](https://www.nature.com/articles/s41559-021-01391-6.epdf?sharing_token=cfPiKMIBlBjeuPNVTk0-fNRgN0jAjWel9jnR3ZoTv0MYJAEd_iBH8uk88bGnD2nerqeUtZUdChRJgDyCtoCrD_88A6Kye1OH_BxvtYka45Dw52UDOnSmx0zZVZyeZ0k24PrFmdYpJS89wV57q9g6cqh5ZqbFFrQFi8xoo8mA6y8kLBuDSlBsTQTlCBHlg8xUdQ_Oe0wERz8IDAXQjMh8NtlT9fovzYcCEZMznJQuOgE%3D&amp;tracking_referrer=www.discovermagazine.com)
* [The puzzle of Neanderthal aesthetics](https://www.bbc.com/future/article/20230428-the-puzzle-of-neanderthal-culture-and-aesthetics)

**Days 2 and 3 Supplemental Resources**

1. The Human Person as Unity of Body and Spirit
   1. Unity of Body and Spirit: [The Catechism of the Catholic Church 362-368](http://www.scborromeo.org/ccc/p1s2c1p6.htm#362)
   2. Made in the Image of God:
      1. Excerpt from [The Catechism of the Catholic Church (1701-1715](http://www.scborromeo.org/ccc/p3s1c1a1.htm#1702))
      2. Document from [Communion and Stewardship – Human Persons Created in the Image of God](https://www.vatican.va/roman_curia/congregations/cfaith/cti_documents/rc_con_cfaith_doc_20040723_communion-stewardship_en.html#:~:text=Within%20the%20conciliar%20vision%2C%20the,rights%20of%20the%20human%20person.)
      3. Video from the Thomistic Institute on the Doctrine of the *imago Dei*: [The Image of God and Original Justice (Aquinas 101)](https://www.youtube.com/watch?v=K2xddJoHw1g&t=6s)
2. A Basic Primer on the Compatibility of Evolution and Creation
   1. Video from Thomistic Institute: [Are Creation and Evolution Compatible? (Aquinas 101)](https://www.youtube.com/watch?v=L_b9tWrFpj4)
3. Further Context on the Differences Between Animal and Humans
   1. Science Related:
      1. Video from NPR [on how apes likely do not have symbolic language](https://www.youtube.com/watch?v=uYWSXRUGxDQ)
      2. Podcast with comparative psychologist Herbert S. Terrace: “[Why Chimpanzees Can't Learn Language and Only Humans Can](https://newbooksnetwork.com/why-chimpanzees-cant-learn-language-and-only-humans-can)”
         1. (Bite-Essay from comparative psychologist Herbert S. Terrace on [how Chimpanzees cannot use words](https://cupblog.org/2019/10/11/nim-chimpsky-and-noam-chomsky-why-language-began-with-words/)
   2. Faith Related:
      1. Video from Catholic theologian [Charles Camosy on the Souls Of Animals](https://vimeo.com/79215914)
      2. First Things Essay on Human Uniqueness in Language from physicist Stephen M. Barr: [First Words](https://www.firstthings.com/article/2017/04/first-words)
      3. Essay from Cardinal Christoph Schönborn: ‘[What is Man that Thou are Mindful of Him?: Is Man Really the Crown of Creation](https://www.catholiceducation.org/en/science/faith-and-science/what-is-man-that-thou-are-mindful-of-him-is-man-really-the.html)’
4. How Language Shapes Our Knowledge of the World
   1. Video from TED: [How language shapes the way we think | Lera Boroditsky](https://www.youtube.com/watch?v=RKK7wGAYP6k)

1. Ian Tattersall, *Paleontology: A Brief History of Life* (Templeton Press, 2010), 194. [↑](#footnote-ref-0)
2. Cardinal Christoph Schönborn, “What is Man that Thou are Mindful of Him?: Is Man Really the Crown of Creation?” [↑](#footnote-ref-1)
3. Schönborn, “What is Man that Thou are Mindful of Him?” [↑](#footnote-ref-2)
4. The Catechism of the Catholic Church §366 [↑](#footnote-ref-3)
5. The Catechism of the Catholic Church §36 [↑](#footnote-ref-4)
6. Ian Tattersall, *Paleontology: A Brief History of Life* (Templeton Press, 2010), 194. [↑](#footnote-ref-5)