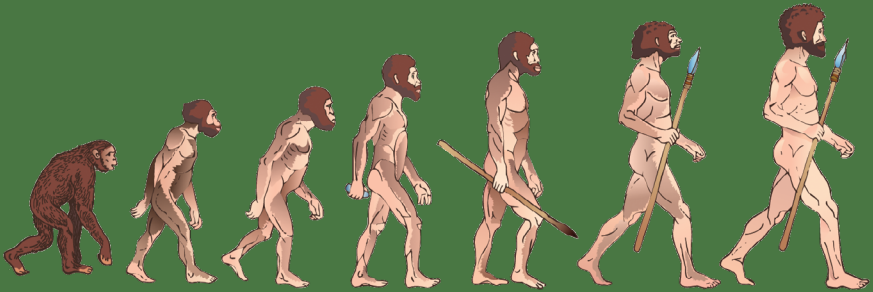


LSI Journal



Teaching Discernment
—using evolution videos

The Purpose of Babel

Let Students See
—what skeptics see

History Timeline

fall 2019

Evolution

a Lutheran Response

Lutheran Science Institute (LSI)

13390 W. Edgewood Ave., New Berlin WI 53151-8088

www.LutheranScience.org office@LutheranScience.org

EXECUTIVE DIRECTOR:

Bruce Holman, PhD. chemistry.

PRESIDENT:

Mark Bergemann, B.S. engineering

VICE-PRESIDENT:

Patrick Winkler, M.Div. M.S. eng., P.E.

SECRETARY:

Jeffrey Stueber

TREASURER:

Derek Rabbers, B.S. ed.

PASTORAL ADVISOR:

Troy Schreiner, M.Div.

BOARD OF DIRECTORS

Paul Hoffmann, B.S. history.

Warren Krug, M.Ed.

James A. Schloff, B.S. biology, M.S.

TECHNICAL ADVISORS

Paul Finke, Ph.D. chemistry.

Doyle Holbird, Ph.D. physiology,
M. zoology, M.Div.

Dwight Johnson, Ph.D. business.

Gary Locklair, Ph.D. computer science,
B.A. chemistry, B.S. M.S.

David Peters, M.Div., S.T.M., A.B.D.

Charles Raasch, M.Div., S.T.M., A.B.D.

Alan Siggelkow, M.Div., S.T.M., M.S.

Steven Thiesfeldt, M.Ed.

John Werner, Ph.D. Molecular and
Cellular Biology.

LSI Journal

a forum for diverse views
consistent with Scripture

Views expressed are those of the author or editor, not necessarily those of the Lutheran Science Institute.

Published four times a year (winter, spring, summer, and fall) by Lutheran Science Institute, Inc.

ISSN 2572-2816 (print),

ISSN 2572-2824 (online)

Editor: Mark Bergemann.

Editorial Committee: Patrick Winkler,
Jeffrey Stueber.

Rates: Free in electronic form (pdf). Print subscription (US \$) 1 year \$13; 3 years \$29. Includes postage to USA. Ask for quote to other countries. Bulk rates as low as 70 cents per copy. Order via LSI website or by contacting the editor.

LSI Journal copyright © 2019 Lutheran Science Institute, Inc. LSI grants schools and churches permission to reproduce its articles for use in their school or church, but LSI must be named and its web address included in every reproduction. Requests by others to reproduce more than brief excerpts should be sent to the editor.

- 4 **Evolution**
–Key Concepts for a Lutheran Response
Mark Bergemann
- 7 **LSI Lesson Book**
- 8 **Let Students See**
what skeptics see
Philip Janke
- 13 **History Timeline**
Daniel Olson
- 16 **Devotions, Videos, Articles**
- 18 **Teaching Discernment**
using evolution videos
Mark Bergemann
- 30 **The Purpose of Babel**
Jonathan Ross

Front Cover: “March of Progress” graphic credit: IMGBIN.

Scripture quotations from the Holy Bible, Evangelical Heritage Version® (EHV®) © 2019 Wartburg Project, Inc. All rights reserved. Used by permission.

Lutheran Science Institute, inc. has tax-exempt status under section 501(c)(3) of the IRS Code as a subordinate organization of the Wisconsin Evangelical Lutheran Synod.



Evolution

–Key Concepts for a Lutheran Response

Mark Bergemann

God has chosen to create and strengthen faith solely through the gospel in Word and sacrament (Rom 10:17; 1 Cor 1:21, 2:14).

Apologetics is defending the Christian faith, often using extra-biblical arguments (presenting claims from logic, science, history, etc.). Even though extra-biblical arguments do not in any way increase the effectiveness of the gospel, Scripture shows a place for them in our apologetic.

Extra-biblical arguments have the role of removing barriers to the gospel.

Science is often seen as an unbiased producer of truth. In reality, science is neither unbiased nor a producer of truth. Prominent scientists, including those who champion evolution, describe science as a biased and subjective process.

Scientific terms must be used correctly. Evolution must be described correctly. Stay within the limits of your scientific knowledge.

Unprovable presuppositions direct and constrain all science. Evolutionary science has more unprovable presuppositions than other branches of science like physics and chemistry. The starting assumptions of evolutionists require that creation be rejected. Creation is rejected NOT on the basis of scientific conclusions, but on the basis of unprovable a priori assumptions. The three primary unprovable assumptions of evolutionists are: 1) No Creator, 2) No Flood, and 3) “Deep time,” meaning billions of years.

Pointing out the assumptions of evolutionists is a strong and solid argument, one which should remain strong for decades to come. If an assumption is wrong, then all conclusions based on that assumption are invalid.

Avoid even implying that all of evolution is wrong: A creationist can agree with much of evolution theory. This is especially true of the core

evolution teaching of natural selection. Natural selection really does produce new *species*, but always within their biblical *kind*.

Natural selection is a significant scientific discovery. It helps us better understand how the biblical *kinds* of plants and animals diversified into so many *species*. It helps us better understand how the estimated 40,700^{1,2} *species* of amphibians, birds, mammals, and reptiles alive today could have descended from an estimated 627³ *kinds* of those animals on Noah's Ark.

The geologic column is a significant scientific discovery. It helps us better understand the original diversity of creation. So many amazing and unique plants and animals God created have gone extinct.

All radiometric dating methods, including carbon dating, are useful tools allowing us to determine with reasonable accuracy, *actual* ages from the recent past (several thousand years) of organic material (wood, bones, shells, peat, etc.) and *relative* ages of some kinds of rocks (cooled magma such as granite and basalt). Evolutionists go farther and claim that these dating methods produce ages far beyond biblical timescales.

All dating methods are based on unprovable presuppositions. Evolutionists are aware that some of their presuppositions are *often* false, so they put great effort into minimizing errors due to false assumptions. Even so, they admit that their assumptions are *unprovable* and *commonly false*. For instance, the New Mexico Bureau of Geology and Mining Resources writes,

There is not a reliable way to determine if the assumptions are valid. Argon loss and excess argon are two common problems that may cause erroneous ages to be

1 This number increases constantly as new species are discovered and the definition of species narrows. The number of bird species recently doubled. Mark Owuor Otieno, "How Many Species of Birds Are There?" WorldAtlas, Nov. 2, 2017. (accessed 11-10-19)

<https://www.worldatlas.com/articles/how-many-species-of-birds-are-there.html>

2 Sophy Owuor Otieno, "How Many Species of Reptiles Are There?" WorldAtlas, Jan. 14, 2019. (accessed 11-10-19)

<https://www.worldatlas.com/articles/how-many-species-of-reptiles-are-there.html>

3 Craig Froman, ed., How Many Animals Were On The Ark? (Green Forest: Master Books, 2016), 47.

determined.⁴

The evolution story is a mixture of reality and fabrication. True parts of evolution are often used as proof that the false parts of evolution are also true. This is demonstrated in the following two points.

Evolutionists correctly point out that natural selection produces new *species* within their *kind*, then they ask us to *imagine* that natural selection can also produce new *kinds*.

Evolutionists correctly point out that the geologic column has a sequence of fossil containing rock layers. Then they ask us to *imagine* that the plants and animals that left these fossils all descended from a bacteria-like common ancestor.

Creationists and evolutionists often agree. Point that out as you minister to creationists and to evolutionists. Discuss some of those points of agreement as a path to discussing the assumptions which guide and constrain evolutionary science.

While witnessing to unbelievers, your goal is to present the gospel message (not to discuss creation or evolution).

Never demean evolutionists: Always remember that you are Christ's ambassador to the world, meaning you are God's representative to everyone, including evolutionists. Do not belittle those to whom you represent God. Reflect the love of Christ as you minister to both creationists and to evolutionists.

We are ambassadors for Christ, inasmuch as God is making an appeal through us.

2 Corinthians 5:20a, EHV

⁴ New Mexico Bureau of Geology & Mineral Resources, "New Mexico Geochronology Research Laboratory K/Ar and 40Ar/39Ar Methods," New Mexico Institute of Mining and Technology, (accessed 11-10-19): <https://geoinfo.nmt.edu/labs/argon/methods/home.html>

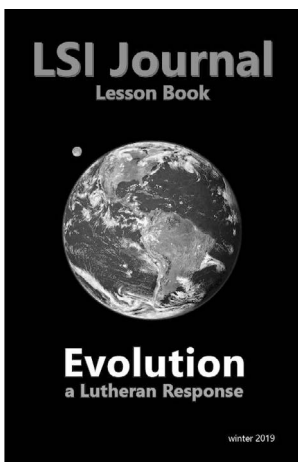
Lesson Book

Evolution –a Lutheran Response

The preceding key concepts are explained in the LSI Lesson Book, “Evolution –a Lutheran Response.” In 24 pages this lesson book summarizes nearly 200 pages of articles. Although just published earlier this year, the LSI Lesson Book is already in use at dozens of WELS and ELS congregations for adult Bible study, in schools for faculty studies, and as a student text in high schools and colleges. This Lesson Book is already in reprint. LSI has now printed over 3,800 copies, while an average print run for the *LSI Journal* is less than half that amount.

Free pdf copies of the Lesson Book are available on the LSI website (www.LutheranScience.org/LessonBook). Copies of all referenced articles and videos are also available for free download.

Print copies of the Lesson Book are available for a limited time at the special prices below, which include shipping to the USA (ask for pricing to other locations) and are set at LSI’s expected cost throughout 2020. This LSI Lesson Book is 8.5” x 5.5,” 32 pages, and has a soft cover. Prices are subject to change without notice. Purchase online at www.LutheranScience.org/LessonBook or by sending payment to Lutheran Science Institute, 13390 W Edgewood Ave, New Berlin WI 53151.



Print copies

qty	price
1	\$1.55
2	\$2.30
10	\$9.00
30	\$24.00
50	\$36.00
70	\$50.00
100	\$70.00
140	\$98.00

Theological Foundations

The Use of Reason
Did God Use Evolution to Create?

The Nature of Science

Dinosaur Science
Science is Often Wrong
Blinded by Unbelief

A Lutheran Response

Natural Selection

Species and Kinds
Evolution is a Mixture of Reality and Fabrication
Some Truth in Evolution

Dating Methods

Carbon Dating
Other Dating Methods

Fossils

Dinosaur Evolution
Human Evolution

Let Students See what skeptics see

Philip Janke

In a few short months high school seniors will be putting the finishing touches on their final projects and semester exams as they prepare to graduate. Every parent and teacher hopes and prays that the education those students received in high school will help prepare them for the next stage of their life. Christian parents and teachers especially hope that their students' faith is equipped to face questions and challenges they have not yet encountered. All of them will face new kinds of challenges.

How can we help equip them? Some of us may want to keep them under our care until they are older. Yet we recognize when it is time to graduate, they must go further out into the world under God's grace. Can we prepare them for every challenge to their faith? Perhaps not. They may face challenges we never imagined. But perhaps we *can* let them see *some* challenges while still under our care, allow them to wrestle with them a bit, and help them find the confidence to face those challenges – confidence God gives through his Word.

Some of the greatest challenges our kids will face are direct attacks against their faith and against the Word of God upon which their faith is built. For example, many atheists and skeptics try to deny the possibility of Jesus' resurrection.¹ And why wouldn't they? If Jesus did not rise from the dead, Christianity fails (1 Corinthians 15:12-19). How do we prepare them for such attacks? First and always, we connect them to the powerful Word of God through which the Holy Spirit promises to preserve and strengthen their faith. We also encourage them to make frequent use of the Lord's Supper for the forgiveness of their doubts and the strength-

¹ For example, see what skeptics say about the resurrection of Jesus on RationalWiki, a website advancing the views of skeptics.
https://rationalwiki.org/wiki/Resurrection_of_Jesus (accessed 11-10-19)

ening of their faith. Those means of grace are the Holy Spirit's promised means to keep us in the one true faith.

In addition to that, perhaps we can help our students by letting them practice wrestling with those skeptical challenges so that they are reminded that their faith is not dumb nor irrational to the point that there is no reasonable response to skeptics' claims.

In the Senior Christian Doctrine and Practice class at my high school we were studying the resurrection of Jesus Christ. I asked the students to read the account in each gospel and note differences between those accounts. I wanted them to see what skeptics see –that there are significant differences between the resurrection accounts in terms of the number and names of women present and the number of angels present. This is a stumbling block for many skeptics and something students may not have previously considered. For one assignment, students were asked to find and respond to an article written by a skeptic who doubts the resurrection. Many students found it comforting to answer the skeptics' questions with reasonable arguments –not for a strengthening of their faith but to understand that there are reasonable responses to the skeptics' doubts.

For example, one student wrote: “Some say that the disciples lied about the resurrection, but why would they do that? They had nothing to gain from pledging allegiance to a dead guy. Caesar was considered divine, and saying that someone else was [divine] would be dangerous for them, so why would they just make it up?” The apostle Paul used that same line of reasoning when he said,

Why do we live in danger every hour? Day by day I face death, as surely as I boast about you, brothers, in Christ Jesus our Lord. If I fought wild animals in Ephesus with human motives, what good did it do me? If the dead are not raised, then “let us eat and drink, for tomorrow we die.” (1 Corinthians 15:30-32 EHV).

Using that line of reasoning certainly didn't strengthen that student's faith, but it seemed to bolster her confidence that she is not irrational

for believing in the miracle of the resurrection, and that it makes sense that Paul would be willing to suffer and die if the resurrection of Christ really happened.

In the very same class, we have a young skeptic woman who responded to the assignment in this way: “Even if the Bible is God’s Word, it very well could have been tampered with throughout the ages.” The vast number of biblical manuscripts—so precise in spite of all the variants—could silence her argument similar to how Jesus silenced the chief priests in Matthew 21:23-27. If the Bible has been tampered with so much throughout the ages, why do so many wide-spread manuscripts all say the same thing? Students can, with some guidance, provide reasonable explanations to what skeptics say about the resurrection. These apologetic explanations could open the door to more gospel witnessing with the skeptics they encounter.

Caution is in order. It would be improper for me to say to the first student after her statement, “See, doesn’t that just make your faith stronger knowing that it wouldn’t make sense for Paul to lie about Jesus’ resurrection?” God reveals that, “Faith comes from hearing the message, and the message comes through the word of Christ” (Romans 10:17 EHV). God does not say “Faith comes from hearing the message, but only if the message makes sense.” The gospel message in the means of grace will strengthen the student’s faith, not the rationality of an argument.

Similarly, with the second student it would be improper for me to assume that if she sees how much manuscript evidence exists, she’ll believe what the manuscripts say. Again, God reveals that,

However, an unspiritual person does not accept the truths taught by God’s Spirit, because they are foolishness to him, and he cannot understand them, because they are spiritually evaluated. (1 Corinthians 2:14 EHV).

The manuscript evidence may open the door for the student to consider the biblical claims, but only the gospel itself will create faith in her heart to believe it.

What about when Scripture itself is challenged? Pastors and teachers alike may have wrestled with the thought: *Since we don't have the original manuscripts written by God's inspired writers, we don't know whether the Bible we have today is God's Word or not.* We may even be well prepared to respond to such a statement. While we are familiar with that objection to the trustworthy nature of the Bible, our students may not be. They may not even encounter that challenge until they leave high school. That can pose a risk to someone who isn't prepared to respond to that challenge because they've never thought of it.

That is, unless, we allow them to see what the skeptics see. We can readily admit that it is true, we don't have the original manuscripts of the Bible. That might initially trouble our students, but with a little guidance they can easily see that in spite of the lack of original manuscripts we still have very reliable, wide-spread, ancient, and accurate manuscript evidence. That may seem way too involved for, let's say, a sophomore New Testament class. Simply mentioning the thousands of New Testament manuscripts, as compared to the handful of manuscripts for other ancient writings, can show students that a challenge promoted by skeptics and atheists has a simple reasonable response. A short video on this is available from Ark Encounter.² Again, only the Word of God itself will turn those skeptics into believers. Our sinful human nature builds walls separating us from the gospel message. Showing skeptics the weakness of those walls can provide an opening for them to listen to the gospel.

There are some things in Scripture we cannot really understand such as the Trinity and the dual nature of Christ. That's okay. *Our students also need to know that's okay.* The Apostle Paul explains how God gives us confidence through the foolishness of what is preached concerning the cross of Christ (1 Corinthians 1:18-25). Our faith won't understand everything there is to know about God, but by God's grace it does trust him in spite of our limitations.

² "Can We Trust the New Testament Manuscripts?" Ark Encounter, <https://arkencounter.com/bible-true/beans/?fref=gc&dti=1034088886603560> (accessed 11-10-19)

After our students graduate high school, they will experience more human limitations in the face of challenges. Thank God for the power of the gospel. We depend on it. As we do, we don't need to be afraid of letting our students encounter those challenges in advance.

Allow students to see that their faith is not irrational like skeptics want them to think. Help them learn to use resources such as:

- The People's Bible commentary,³
- Q&A at WELS.net,⁴
- UnderstandChristianity.com,⁵
- WhatAboutJesus.com,⁶
- LutheranScience.org.⁷

These sources can provide our students with answers that make the challenges they face less severe. Pray for them that God may continue to keep them in his care, that they continue to make use of the means of grace, and that when they have opportunities to share their faith, they aren't afraid to because you've helped prepare them.

Pastor Philip Janke serves as Coordinator of Recruitment and Communication at Winnebago Lutheran Academy in Fond du Lac, Wisconsin. He has taught "Senior Christian Doctrine and Practice" and "Sophomore New Testament." Pastor Janke originally submitted this classroom idea as part of his coursework for Creation Apologetics 101, an online course offered to pastors, teachers, and laity by Martin Luther College.

3 The People's Bible, available at www.nph.net (accessed 11-10-19)

4 "Topical Q&A," WELS, <https://wels.net/serving-you/wels-topical-qa/> (accessed 11-10-19)

5 "Understand Christianity," <https://www.understandchristianity.com/> (accessed 11-10-19)

6 "What About Jesus?" <https://whataboutjesus.com/> (accessed 11-10-19)

7 The Lutheran Science Institute (LSI), www.LutheranScience.org (accessed 11-10-19)

History Timeline

Daniel Olson

There are more people in our congregations than we'd like to admit who struggle with believing in a creation of six 24-hour days. Worldly influences often lead us into temptation, and sadly, the world's promotion of evolution with its millions of years is a strong influence to view Adam and Eve as closer to myth than to true history.

As a pastor who teaches 7th and 8th grade catechism class, I'm constantly looking for ways that I can prepare our students with the tools they need to face worldly influences like evolution. Here is one idea to help our young people embrace Scripture's historical accounts as actual history and not just stories.

Grade: For grades 7-8, modify as needed for grades 5, 6, 9, 10.

Class: Religion and/or history.

Task: Students create a long (30–100 foot or longer) world history timeline in the school hallway with both biblical and secular events. While covering all of history (creation to present), the lives of five people are highlighted: Abraham, Moses, David, Ezra, and Jesus.

World History Recorded in Scripture

For 7th and 8th grade catechism class, I plan to have my students create a large world history timeline filling an entire long hallway. We will initially focus on world history as recorded in Scripture from creation through 100 AD. Before students add any people or events, the lives of five people will be highlighted on the timeline: Abraham, Moses, David, Ezra, and Jesus. Students will then add other people and events.

Each student will learn a basic structure for the history of salvation as tied to the lives of these five people. Students should learn to use

their fingers as a memory gimmick for approximate dates: Their pinky finger is Abraham (2,000 BC), ring finger Moses (1,500 BC), middle finger David (1,000 BC), index finger Ezra (500 BC), and thumb Jesus (0).

The purpose of this project is that students learn to appreciate the historical reality of people and events recorded in the Bible. Secondly, they will learn five key dates using the five-finger method. Thirdly, they will learn to place each Bible lesson and Bible book between the correct fingers, giving a timeline to salvation history. These five dates are key to knowing Bible history, and this is a simple way to remember it for life.

Each student will add to the timeline five historical events from the Bible, and each of those five events should be from different centuries. Some events may have a general or approximate year (i.e. David and Goliath – 1000 BC). Other events will require a guessed date (i.e. Cain and Abel) based on what we believe about the Bible. I will also challenge the class to research a few events such as the destruction of Judah/Jerusalem by Babylon, the destruction of Israel by Assyria, the Tower of Babel, the life of Job, the writing of Revelation, etc. Before they can add some of these timeline items, they need to give scriptural evidence to support it.

World History Recorded in Secular Sources

This project bleeds into the next project where students will add to the timeline a number of historical events not found in the Bible. We would also extend the timeline so that it goes to present day. This connection to their present day lives helps demonstrate that Bible history is world history. The people and events in Scripture are as real as people living today and events happening today. Connecting Bible history to present day reality is important in guarding the next generation from the temptation of evolution. This is one way to help them see that Adam and Eve are just as real as Alexander the Great and Abraham Lincoln. With this approach, we are working to remove the fairytale mentality some may have about Genesis, and connect the events recorded in Scripture to present day reality.

Each student will add five different world history dates that are not found in the Bible. We would probably have biblical events be on the top side of the timeline while non-biblical events are on the bottom. Before the students can add a secular event, they must prove that their date is the most accurate guess that we have. I will also tell them that they can't pick an event that someone else chose, and they can't pick any two events from the same century. With around fifty 7th and 8th graders in my class, there will be plenty of data on the timeline. One final request is that at least one of the five secular events must have occurred before 100 AD. In my case, as pastor at a Lutheran elementary school, I will work in conjunction with the 7th and 8th grade teachers to focus on historical events that they are studying that semester. They could use this timeline to teach their history classes so that world history and biblical history are always seen as one. As they study different historical events they could go out into the hallway and show the students when it happened and add events whenever they choose. It could be tied in with student reports on biblical or secular history. Another option would be to have students research events which are covered in biblical history and also in secular history.

It would be great to have this timeline in the hall while parents and grandparents are in the school for an open house, Grandparents' Day, or for the school play. They too need to be reminded of the historicity of the Bible so that the lessons from Scripture are not seen as myth, but as historical reality. This is also a good reminder to the parents that in a Lutheran school, religion class is not simply one topic during the day, but is intertwined in every aspect of education.

A large hallway-filling project like this can be fun for the students. While they learn to see the people and events recorded in Scripture as true reality, they will better understand how God revealed and carried out his plan of salvation along the same timeline in which we live.

Daniel Olson serves as pastor at St. Paul's in Onalaska Wisconsin. Pastor Olson originally submitted these classroom ideas as part of his coursework for Creation Apologetics 102, an online course offered to pastors, teachers, and laity by Martin Luther College.

Devotions, Videos, Articles

This issue of the *LSI Journal* explores ways to bring creation apologetics into the classroom. Many devotions, videos, and articles previously published by LSI can also be used in that endeavor.

LSI Journal articles are written for an adult audience, especially pastors and teachers. That said, some LSI articles are suitable as student texts. Most can be used for high school. Below are some to consider using for grades 5-8. One even has lessons for 5K.

Schools and churches have the permission of LSI to reproduce its articles for use in their school or church, but LSI must be named and its web address included in every reproduction. Pdfs of individual articles and devotions are free to download at: www.LutheranScience.org/articles. That web page allows the articles and devotions to be sorted by date, title, or author. Videos are at www.LutheranScience.org/video. Pdfs of complete journals are free to download at: www.LutheranScience.org/journal.

Devotions

Devotions are a great way to bring creation apologetics into the classroom. This could include devotional messages which begin the school day or begin a class period, but also much shorter devotional type comments made while teaching most any subject.

The following devotions show several ways to bring creation apologetics into a devotion. In some of these devotions the ties are minimal, while in others our Creator is the central theme. As a group, these devotions emphasize the gospel and faith.

Daily Reminder Psalm 19:1-4 (fall 2018)

This is the Day Psalm 118:24 (summer 2016)

God's Country Psalm 33:6-9 (summer 2018)

Faith Is Reality Hebrews 11:1-3, 7 (winter 2017)

Mystery of Sheep Psalm 33 and John 10 (winter 2018)
Take Your Questions to Jesus Luke 7:18-23 (summer 2019)
Our Creator Became Our Redeemer Isaiah 44:24-25 (fall 2016)
I Believe in God the Father Almighty, Creator Heb. 11 (spring 2019)
The Creator Who Lovingly Cares for His Creation Psalm 147 (sum. 2017)

Videos

Did God Use Evolution to Create?

Why do some Christians believe in millions of years? How do they attempt to make the Bible conform to millions of years? Scripture shows these Christians place their Christian faith in jeopardy.

Why Do Some Believe in Millions of Years?

This video was made for grade 7-8 confirmation class. It shows why evolution is incompatible with the Christian faith. It can be shown in three sections of 8-10 minutes per section.

Articles

The Nature of Science (fall 2018)
Dinosaurs, God's Creatures (fall 2018)
Dinosaurs—Feathers or Scales? (spring 2016)
In the Classroom—ideas for 5K (spring 2019)

Short Articles

Zoo Rhino Sign (winter 2016)
We Do Not Know (winter 2017)
How Old is That Cave? (fall 2017)
So Much is Unknown (summer 2016)
Evolution's Tree of Life (winter 2016)
Bacteria Not "Primitive" (spring 2016)
Human or Ape, No In-Between (winter 2017)
"Evolution is a Leap of Imagination" (winter 2017)
Glossary for the Creationist (spring 2018 and summer 2018)

Teaching Discernment using evolution videos

Mark Bergemann

We must teach our students to be discerning regarding the claims of evolution. On a near daily basis the world entices them to deny their Creator. We can teach them skills to evaluate evolutionary claims and separate the true parts of evolution from the false parts. A good way of achieving this goal is to expose our students to quality videos that present compelling reasons why the evolutionary claims of millions of years and common descent are true. Then, as a class, we can evaluate the evolutionary claims presented and find those claims are not really compelling.

Bill Nye Video

[*grades 5-8*] A 2-minute evolution video with creationist commentary has been available on the LSI website since December 2014 and has been used in grades 5-8. In that video Bill Nye explains how evolutionists imagine that hydrogen gas turned into people, over billions of years, all by itself. www.LutheranScience.org/Bill

The Beak of the Finch Video

[*grade 5 to adult*] A more substantial video is “The Beak of the Finch,”¹ which chronicles forty years of research on finch evolution in the Galápagos Islands. This video is intended for classroom use and can be downloaded and used for educational purposes. A transcript is available and the video is in both English and Spanish. The video is aimed at high school students, but can be used down to 5th grade and also for adult classes. Information and links to this video will be kept updated on the LSI *Evolution Videos* page at www.LutheranScience.org/EvolutionVideos.

¹ “The Origin of Species: The Beak of the Finch,” HHMI BioInteractive, Nov 12, 2013. (accessed 11-10-19; HHMI is the Howard Hughes Medical Institute) <https://www.biointeractive.org/classroom-resources/origin-species-beak-finch>

“The Beak of the Finch” can be used in science or religion class. With this video, we will be teaching both science and apologetics.

This video can be shown and discussed in one forty-minute religion or science class period. It also works well for a one-hour adult Bible class. You can show and discuss the entire sixteen-minute video or any of its four-minute segments.

Concepts Presented

- Certainty based on God’s Word.
- Lesser certainty based on human reason.
- Species and biblical kinds.
- Natural selection within kind.
- Change in traits of a species can happen in one generation.
- How new species can develop naturally, without human involvement.
- “Science does not generate truth, but rather, useful explanations.”²
- Formation of volcanic islands after the flood.
- Barriers keeping species from interbreeding.

Lesson Methodology

Let’s watch this video and work as a class to correct its errors. How might we change the narration so that it conforms to Scripture (so that it conforms to reality)? Amazingly, this entire video can be understood in a way which agrees with Scripture, by simply removing the words “millions of years” in three places. The remaining narration does contain words and phrases that are commonly *associated* with millions of years, but each of those words can be understood in a manner that conforms with Scripture. That aspect leads to some fruitful discussion. Let’s try to rewrite those parts too, for a narration which more clearly reflects the real world.

² Paul Boehlke, “Dinosaurs, God’s Creatures,” *LSI Journal* 32, no. 4 (fall 2018): 12. www.LutheranScience.org/2018fall (accessed 11-10-19)

Resources

In preparation for class, instructors should consider reading the first two articles below and optionally the third. These articles can also be used as references for older students, especially if you are having them write papers about this video.

– “Glossary for The Creationist” on pages 6-8 in the spring 2018 *LSI Journal* (www.LutheranScience.org/2018spring). This article defines the terms “natural selection,” “species,” and “kind.”

– “Natural Selection” on pages 25-31 in the fall 2016 *LSI Journal* (www.LutheranScience.org/2016fall). This article explains how natural selection produces new species within their own kind, and how evolutionists falsely claim that natural selection can also produce new kinds.

– “Evolutionists and Creationists Often Agree —There are many points of agreement on natural selection” on pages 17-32 in the spring 2019 *LSI Journal* (www.LutheranScience.org/2019spring). This article critiques Richard Dawkins’ book, “The Greatest Show on Earth –The Evidence for Evolution.” Dawkins claims that because natural selection can produce change within each biblical kind, that proves natural selection can also produce new biblical kinds. That is also what the “Beak of The Finch” video implicitly claims.

Video Segments

The video has four distinct four-minute sections. I suggest showing and discussing each part individually. Show the first part, then pause the video and discuss it. Next show and discuss the second part and so on. The fourth part, “Breeding Barriers,” can be omitted if required due to time constraints. The provider of this video (HHMI) does not mention that the video has four distinct segments. Following are my names for and descriptions of each segment.

Introduction

3:47 in length; 0:00–3:47; transcript page 1. The video opens with captivating footage showing the diversity of God’s creatures. The theme is announced: “How new species form.” The field researchers are introduced.

Fieldwork Described

3:32 in length; 3:47–7:19; transcript pages 1-2. The Galápagos finch species are introduced and the methodology of the fieldwork data gathering described.

Observing Natural Selection

3:53 in length; 7:19–11:12; transcript pages 2-4. A scarcity of *small* seeds due to an 18-month drought seems to be the reason that average beak size *increased* by four percent in *one* generation. About seven years later, a series of weather events resulted in a scarcity of *larger* seeds. That seems to be the cause of a measurable *decrease* in beak size in *one* generation. These observations are excellent evidence of natural selection in action.

Breeding Barriers

4:07 in length; 11:12–15:19; transcript pages 4-5. It is observed that different mating songs and physical appearance keep the finches from cross-species mating. These are at least two reasons why the Galápagos finches continue to be separate species.

Quotes from “Introduction”

Mystery of mysteries: How new species form.
[1:07–1:12, page 1]

This quote introduces the theme of the video: “How new species form.” Darwin called this the “mystery of mysteries.” Observations presented in this video show natural selection producing change in the Galápagos finch population. The video also advances the claim that one species of finch flew from the mainland to the Galápagos Islands, and that one species diversified into thirteen species through natural selection. That claim does not go against Scripture, as it is change within kind. A creationist is free to use his reason to accept or reject that claim. The

evidence certainly points to the truth of this claim, so it is likely true that the thirteen species of Galápagos finches descended from a single finch species. An *LSI Journal* article on natural selection states,

There are many *species* in most biblical *kinds*. Every *kind* of plant and animal which exists today, or which has gone extinct, was created by God thousands of years ago during the six days of creation. No new *kinds* ever develop. New *species* develop all the time, but always within their own *kind*. ...Natural selection is a significant scientific discovery. It helps us better understand how the biblical *kinds* of plants and animals diversified into so many species. It helps us better understand how the estimated 40,500 *species* of amphibians, birds, mammals, and reptiles alive today could have descended from an estimated 627 *kinds* of those animals on Noah's Ark.³

If your students have not previously been taught this, consider taking extra time to further discuss natural selection, species, and kinds. Upper high school students and adults may wish to investigate something not mentioned in the texts referenced so far: Epigenetics.^{4,5}

These volcanic islands are geologically young. They began rising from the ocean floor less than five million years ago. [2:43–2:56, page 1]

Question: Is there anything wrong in this quote? If so, what is wrong?

Answer: An error is the assertion (or claim) of millions-of-years. ("Geo-

3 Mark Bergemann, "Natural Selection," *LSI Journal* 30, no. 4 (fall 2016): 31. www.LutheranScience.org/2016fall (accessed 11-10-19)

4 "Epigenetics is the study of heritable changes in gene expression (active versus inactive genes) that do not involve changes to the underlying DNA sequence." "Epigenetics: Fundamentals," What is Epigenetics, <https://www.whatisepigenetics.com/fundamentals/> (accessed 11-10-19)

5 "The molecular basis of evolutionary change is assumed to be genetic variation. However, growing evidence suggests that epigenetic mechanisms, such as DNA methylation, may also be involved in rapid adaptation to new environments." "Epigenetic variation between urban and rural populations of Darwin's finches," *BMC Evolutionary Biology*, (accessed 11-10-19) <https://bmcevolbiol.biomedcentral.com/articles/10.1186/s12862-017-1025-9>

logically young” could also be considered wrong. Evolutionists consider five million years to be young next to their claimed 4.5-billion-year age for the earth.)

Question: Why are we certain millions-of-years is wrong?

Answer: We are certain because God reveals in Scripture that the universe and everything in it are only thousands of years old, not millions. The Bible also reveals that God created the universe in six normal length days. The Bible is accurate in everything it says. We can be completely sure of that.

This is in contrast to the much lower level of confidence when we use sources of knowledge other than Scripture. For instance, science is often wrong about things. Previous *LSI Journal* articles put it this way,

Science is often seen as an unbiased producer of truth. In reality, science is neither unbiased nor a producer of truth.⁶

Science does not generate truth, but rather, useful explanations. Our students need to know about how science works. ...Mankind creates explanations and picks and organizes facts to fit the current situation.⁷

Many prominent evolutionists write about science in similar ways, especially regarding the science of evolution.⁸ The theories and laws of science (which are called “facts” of science) are often found to be wrong and are then replaced with new theories, laws, and facts.⁹ That was the case when Newton’s law of gravity was replaced with Einstein’s theory of general relativity as the explanation of gravity. Even the Big Bang was

6 Mark Bergemann, “The Nature of Science” *LSI Journal* 33, no. 1 (winter 2019): 7. www.LutheranScience.org/2019winter (accessed 11-10-19)

7 Paul Boehlke, “Dinosaurs, God’s Creatures,” *LSI Journal* 32, no. 4 (fall 2018): 12. www.LutheranScience.org/2018fall (accessed 11-10-19)

8 For six lengthy quotes see: Mark Bergemann, “The Nature of Science” *LSI Journal* 32, no. 4 (fall 2018): 26-30. www.LutheranScience.org/2018fall (accessed 11-10-19)

9 For more on the changing nature of scientific theories, laws, and facts, see: Mark Bergemann, “How Can A Lie Like Evolution Have Scientific Evidence?” *LSI Journal* 29, no. 1 (winter 2015): 3-13. www.LutheranScience.org/2015lie (accessed 11-10-19)

recently questioned in *Scientific American* by three prominent evolutionary physicists who argued that it needed to be replaced with a different theory.¹⁰

Older students may discuss the “geologically young” claim. God reveals there was a planetary flood a few thousand years after creation. We can assume that flood and its aftermath sculpted the surface of the earth, changing it significantly. The Galápagos Islands are islands formed by a volcano, and that probably happened after the Flood, so the Galápagos Islands are probably younger than the earth itself by several thousand years. To evolutionists, the term “geologically young” implies the existence of “deep time” or millions and billions of years.

Question: How might we rewrite these sentences to make them reflect reality?

Suggested rewrite: There are many ways to make this sentence reflect reality. Here is one: “These volcanic islands probably rose from the ocean floor thousands of years ago following the Flood.”

Commentary: The Galápagos Islands are made of cooled volcanic lava. It is reasonable to assume that lava spewing up on the sea floor (magma from inside the earth) accumulated enough height to rise above the sea and create the Galápagos Islands. This probably happened in the years shortly after the Noachian Flood.

At first devoid of life, they now support a modest number of species. [2:56–3:02, page 1]

Question: Is there anything wrong in this quote? If so, what is wrong and why is it wrong?

Answer: Nothing is wrong. The Galápagos Islands are made of cooled volcanic lava. When that lava initially cooled, it would have had no plant

¹⁰ Mark Bergemann, “‘No Experiment Can Ever Disprove It’,” *LSI Journal* 31, no. 2 (spring 2017): 32. www.LutheranScience.org/2017spring (accessed 11-10-19)

or animal life. It is reasonable to assume that all plants and animals on the Galápagos Islands came from the nearby South American continent, sometime after the lava cooled.

In these diverse habitats, the finches have evolved many ways to survive. [3:39–3:47, page 1]

Question: Is there anything wrong in this quote? If so, what is wrong and why is it wrong?

Answer: Although most creationists would object to the word “evolve,” the type of evolution referred to with this sentence is evolution that a creationist can accept as true. The video advances the claim that one species of finch flew from the mainland to the Galápagos Islands, and that single species diversified into thirteen species through natural selection. These thirteen species of finch *evolved* from a common ancestor, a finch. That claim does not go against Scripture, as it is change within kind. A creationist is free to use his reason to accept or reject that claim. The evidence certainly points to the truth of this claim, so it is most likely true that all thirteen species of Galápagos finches descended from a single finch species.

While this is evolution a creationist can accept as true, it would be misleading for a creationist to generally claim that he believes evolution is true. Most people take the words “evolution” and “evolve” to mean that birds descended from dinosaurs and people descended from ape-like creatures. We must always be careful to explain what we mean when using words that imply more than we are saying.

Question: How might we rewrite this sentence to make it more clearly reflect reality?

Suggested rewrite: There are many possibilities. Here is one: “In these diverse habitats, the finch populations changed in many ways to survive.”

Quote from “Fieldwork Described”

The finches look so different that Darwin first mistook them for entirely unrelated kinds of birds. ...Different kinds of finches could have all come from the mainland separately or the finches could have all evolved out there on the islands. [4:37–5:10, page 2]

Question: The word “kind” appears twice in this quote. Does this refer to the biblical “kind”?

Answer: No, it simply means a type or variety. Evolutionists do not recognize the concept of a biblical “*kind*,” nor do they believe there is a barrier between *kinds*.

Comment: Without using the biblical term “*kind*,” the evidence evolutionists often give for their claim that natural selection changed dinosaurs into birds is that natural selection can produce change within each biblical *kind*, and therefore natural selection can also produce new *kinds*. That is exactly what the “Beak of The Finch” video implies. It uses the true parts of evolution as proof that the false parts are also true. Evolutionists claim that 3.5 billion years of natural selection, driven by mutations, produced all of earth’s plants and animals from a bacteria-like common ancestor. They say that the bacteria in your gut is your distant cousin. And yes, evolutionists actually say things like that.

Quotes from “Observing Natural Selection”

The average beak depth was more than four percent larger than the previous generation. Natural selection had changed the average beak size. [CARROLL:] Could you have ever imagined measuring and observing something like this on such a short time scale until you actually did it? [PETER GRANT:] When we started, the answer is no. We could not imagine we would be able to do it. [9:28–9:54, page 3]

Comment: It was once thought that changes in species would take many generations. New research such as this, shows it can and does happen quickly. In this case, in one generation.

But was this a fluke? Or are changes like this happening all the time? ...That year many more finches with small beaks survived, and their offspring inherited smaller beaks. So the selection had swung in the opposite direction, and evolution had occurred as a result. In an amazingly short period of time, the Grants had measured evolution of beak size, not once, but twice, demonstrating that when birds encounter different environments they will change over a very short amount of time. [9:54–11:12, pages 3, 4]

Comment: About seven years after observing a change in finch beak size in a single generation, the Grants observed another single generation change in beak size. Can such rapid changes in species be fairly common? It seems so.

UPDATE: In January 2018, four years after this video was made, the Grants and other researchers were published in a science paper revealing that in their years on Daphne Major, they observed the emergence of a new finch species. A male finch of another species arrived on Daphne Major from another island 62 miles away. That traveler was able to mate with a Daphne Major female and produce offspring. In three generations there was a new species of finch. The science paper reports,

Homoploid hybrid speciation is believed to be a generally slow process extending over hundreds of generations, but, as the present example shows, it can be established in only three generations. Thus, in small islands or island-like settings, it may be easier to achieve than is currently believed.¹¹

¹¹ Sangeet Lamichhaney et al, “Rapid hybrid speciation in Darwin’s finches,” Science 359, Issue 6372 (January 12, 2018): 228 (article pdf page 4). <https://science.sciencemag.org/content/359/6372/224> (accessed 11-10-19)

Quotes from “Breeding Barriers”

Over millions of years, changes like these occurring throughout the Galápagos generated all sorts of beak sizes and shapes. ... The most likely scenario is that, two million years ago, a single finch population arrived from the mainland. [11:12–14:08, pages 4-5]

Comment: This quote claims that changes in the Galápagos finch population, over “two million years,” resulted in the great variety of Galápagos finch species. Yet in this video we have learned that significant change in a single generation was observed *twice* in less than ten years. We also discussed the 2018 science paper where the Grants described how they observed a new species of Galápagos finch develop in only three generations. Evolutionists are finding that change in animal populations happens much more quickly than they thought it could happen.

Question: How might we rewrite this sentence to make it reflect reality?

Suggested rewrite: There are many possibilities such as, “The Flood occurred thousands of years ago. Sometime after that, a mating pair of finches arrived on the Galápagos Islands. Changes in their offspring, like the ones the Grants observed, generated all sorts of beak sizes and shapes.”

The Grants have shown that both geography and ecology are keys to the evolution of the Galápagos finches. ...The more diverse the environment, the more opportunities for evolutionary change to produce those new species. [13:47–15:01, pages 4-5]

Question: How might we rewrite this sentence to make it more clearly reflect reality?

Suggested rewrite: There are many possibilities. Here is one: “The Grants have shown that both geography and ecology are keys to changes in the population of the Galápagos finches. ...The more diverse the environ-

ment, the more opportunities for natural processes to produce those new species.”

These unassuming birds still illuminate how the great diversity of life arose and continues to evolve. [15:11-15:19, page 5]

Comment: The video ends with this statement about the Galápagos finches. The makers of this video intend these words to mean that by studying these finches we can learn how 3.5 billion years of natural selection produced all the plants and animals on earth from a bacteria-like common ancestor. A creationist can understand this entire sentence in a way that agrees with Scripture: By studying these finches we can learn how thousands of years of natural selection produced a great diversity of species within each kind from the kinds of plants and animals that survived the Flood.

Videos in The Classroom

The use of videos for classroom teaching has become very popular. When properly employed, videos can increase student motivation.¹² “The Beak of The Finch” is from HHMI BioInteractive. Their website has a large number of videos for classroom use, including 69 evolution videos. Many other sources also have quality evolution videos. Showing evolution videos to our students, and then teaching a Lutheran response, can be of great value. Students can gain skills to evaluate evolutionary claims and separate the true parts of evolution from the false parts. These are valuable skills that can be used throughout their lives.

Mark Bergemann is a retired electrical engineer with a B.S. from the University of Wisconsin–Milwaukee. He serves as president of the Lutheran Science Institute and as Martin Luther College adjunct instructor for the online courses Creation Apologetics 101 and 102. He is a member of Good Shepherd’s Evangelical Lutheran Church in West Allis, Wisconsin.

¹² Edna Bravo et al., “Video as a new teaching tool to increase student motivation,” Global Engineering Education Conference (EDUCON), IEEE, 2011. www.LutheranScience.org/VideoTool2011(accessed 11-10-19)

The Purpose of Babel

Jonathan Ross

What is the tallest building in America? (*One World Trade Center, NY, 1776 ft.*). What is the tallest in the world? (*Burj Khalifa, Dubai, 2717 ft.*). What material allows buildings to be this tall? (*steel*). Before steel, ancient civilizations relied on other materials to build their tallest structures. In Rome, it was the Colosseum (*164 ft.¹—stone and concrete²*). In Egypt it was the Pyramid of Giza (*481 ft.³—limestone, granite⁴*). Take your pick of an early civilization; it was common for a community to build tall structures. But what was the purpose for this?

Today in our Bible history lesson, we'll explore an early civilization whose plans to build a great structure fell apart. More importantly, however, we'll see the reason they stopped this massive building project, and how it applies to our relationship with God today.

Begin with context—Genesis 8:4 (EHV) “...the ark came to rest on the mountains of Ararat.” Briefly review the account of the Flood, where the ark came to rest, and the family of Noah. Point out the mountains of Ararat on a modern map; a large area in eastern Turkey. Review the command God gave to Noah’s family to “Be fruitful and multiply and fill the earth” (Genesis 9:1 EHV).

Read Genesis 11:1-4. Locate the Mesopotamian region on a modern map, in Iraq well south of the mountains of Ararat. Discuss why this region might be good for settling—climate and water sources.

Despite all the good reasons to build a settlement here, what was the problem with this decision? (*God had given them clear instructions*

1 There are conflicting height claims for the original structure varying from 159 to 164 feet.

2 “10 Facts About the Coliseum!,” National Geographic Kids, <https://www.natgeokids.com/uk/discover/history/romans/colosseum/> (accessed 11-10-19)

3 “Pyramids –How Tall?,” Nova Online, (accessed 11-10-19)

<https://www.pbs.org/wgbh/nova/pyramid/geometry/height.html>

4 “Pyramids –How Heavy?,” Nova Online, (accessed 11-10-19)

<https://www.pbs.org/wgbh/nova/pyramid/geometry/blocks.html>

to fill the earth.)) Read verses 1-4 again and look for evidence that shows they had not made God's command their priority. (Kiln-dried ceramic bricks with tar mortar meant they were planning a permanent stay, otherwise they could have used simpler and less attractive construction materials such as sun-dried clay or stone bricks with clay or plant-based mortar.⁵ Also, they wanted to make a name for themselves—"so that we will not be scattered abroad over the face of the whole earth." EHV)

Read Genesis 11:5-7. Why would God intervene? Was it to stop them from doing something great? *(Remember God's command and recall their priorities—they were putting themselves and their own desires above God; shortly after their ancestors had survived a flood!)*

Does God intervene on our behalf today? One thing is for sure, we too are guilty of giving other things a higher priority than the priority we give to God. In response, God reminds us that he will not allow others to take his glory:

I am the LORD; that is my name. I will not give my glory to another, nor my praise to idols (Isaiah 42:8 EHV).

Yet we know that though we are sinful and fail to put God first, we have proof that God does intervene for us. Though we were spiritually dead and in our sins, God sent his Son Jesus to rescue us from sin:

But God, because he is rich in mercy, because of the great love with which he loved us, made us alive with Christ even when we were dead in trespasses. It is by grace you have been saved! (Ephesians 2:4-5 EHV).

God intervened for the benefit of his people who were building a tower for their own glory instead of obeying God's command to fill the earth. Let's read the result of God's intervention together:

Display Genesis 11:8-9 on the board to read together, but in a foreign language such as Luther's German of 1545 (Public Domain):

⁵ Carl J. Lawrenz and John C. Jeske, A Commentary on Genesis 1-11, (Milwaukee: Northwestern Publishing House, 2004), 322-323.

Also zerstreute sie der HERR von dort alle Länder, daß sie mußten aufhören die Stadt zu bauen. Daher heißt ihr Name Babel, daß der HERR daselbst verwirrt hatte aller Länder Sprache und sie zerstreut von dort in alle Länder.

This is a problem. Our class does not understand this language. It's no wonder the tower and location were given the name Babel—which “sounds like the Hebrew word for *confusion*.”⁶ However, this confusion was exactly what the people needed. This building project needed to end, as it would be harmful to its inhabitants by reinforcing their desire to place themselves above God. (*The word “Babel” actually means “gate of God.” Moses uses a play on words by connecting “Babel” to “confusion.”*)⁷

Let's read these verses in a language we can understand: *Display Genesis 11:8-9 on the board and read together.*

How many languages are spoken in the world today? (*about 6,900*⁸) Do you think that many languages developed at the tower of Babel? (*Probably not. The Genesis chapter 10 “table of nations” lists 70 families and refers to some others too,*⁹ *so Babel may have resulted in 70 or so languages. Many of today's 6,900 languages are similar to each other. Linguists place them into about 250 families of languages*¹⁰).

About 70 families left Babel and scattered across the earth, building new cultures. Genesis chapter 10 lists the families and where they settled.

Discuss different ancient civilizations and display their ziggurat structures (examples on pages 34-35). Point out the similarities in their architecture. We see evidence of there once being a single common culture in the style of buildings they created throughout the world.

6 Footnote to Genesis 11:9 in the Evangelical Heritage Version (EHV) translation.

7 Lawrenz and Jeske, 329.

8 Stephen R. Anderson, “How many languages are there in the world?” Linguistic Society of America, 2010, (accessed 11-10-19)

<https://www.linguisticsociety.org/content/how-many-languages-are-there-world>

9 Lawrenz and Jeske, 306.

10 Anderson.

In our lesson today we saw how the people at Babel ignored God's command to fill the earth. God intervened, resulting in the carrying out of that command. Learning about the people at Babel can remind us of how God intervenes on our behalf. Like the people of Babel, we do not follow God's commands as we should. God intervened by sending Jesus to live and die for us, so that we can receive the gift of eternal life in heaven.

Out of thanks for that amazing gift of eternal life, we look to follow God's commands, such as the one Jesus gave when He said,

“Therefore go and gather disciples from all nations by baptizing them in the name of the Father and of the Son and of the Holy Spirit, and by teaching them to keep all the instructions I have given you. And surely I am with you always until the end of the age.” (Matthew 28:19-20, EHV)

We have the privilege to share the message of God's gift of eternal life with all the people scattered across the earth!

Assignment Options:

Write several paragraphs explaining which historical event resulted in a larger effect on the world today: the Flood or the Tower of Babel. (In both of these events, God intervened to address the sins of people.) Support your idea with evidence and sources.

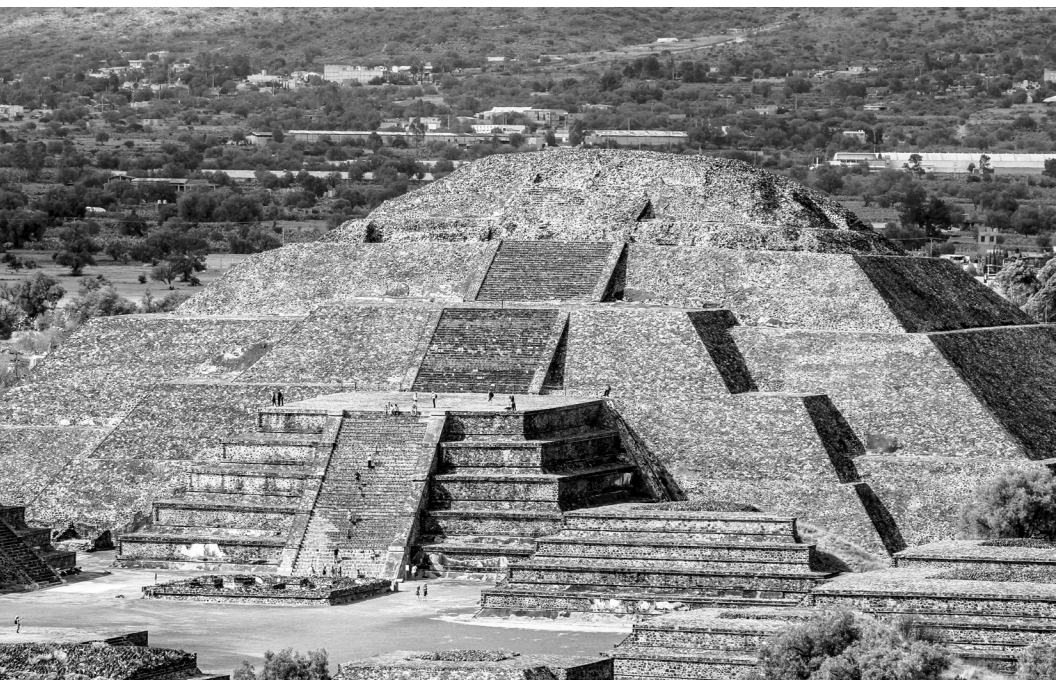
Write a devotion and use a translating program to design a message that can be sent to foreign mission field. Include both the original English and the translation in your final draft.

Use clay that can be sun dried or fired to build a structure that reminds us of how God intervenes for us, using the brick building process of the Old Testament. Prepare a short description with your structure.

Jonathan Ross chairs the math department and teaches high school life science and calculus at Divine Savior Academy in Doral, FL. He is a member of Divine Savior Church in Doral. Mr. Ross originally submitted this article as part of his coursework for Creation Apologetics 102, a Martin Luther College online course for pastors, teachers, and laity.



The city of Teotihuacán (c. 100-700 AD) in modern Mexico has many ancient structures including the Pyramid of the Sun (shown above, 246 ft. tall) and the Pyramid of the Moon (shown below). Photo credits: Pixabay. This and more at <https://whc.unesco.org/en/list/414/> (accessed 11-10-19).





above: Ziggurat in the Elamite city of Dur-Untash (modern Chogha Zanbil in Iran). This city was “founded by the Elamite king Untash-Napirisha (1275-1240 BCE) as the religious centre of Elam.” The ziggurat was “dedicated to the Elamite divinities Inshushinak and Napirisha.” It was built using mud bricks with a facing of baked bricks. The ruins are 81.2 ft tall while the original is estimated to have been 174 ft. tall with a temple on top. These details and more at <https://whc.unesco.org/en/list/113> (accessed 11-10-19). Photo credit: Alireza. heydear [CC BY-SA 4.0].

below: Ziggurat (c. 2,100 BC) in the city of Ur, modern Tell el-Mukayyar, Iraq. Built “by the king Ur-Nammu of the Third Dynasty of Ur for the moon god Nanna” using mud bricks with a facing of baked bricks and tar mortar. Even though partially rebuilt, it is still missing its top terraces and temple. The original height is estimated at 70-100 feet. These details are from Khan Academy at www.LutheranScience.org/KhanUR Photo credit: Kaufingdude [CC BY-SA 3.0].



LSI Journal

Lutheran Science Institute, inc.

13390 W. Edgewood Ave
New Berlin WI 53151

Evolution a Lutheran Response

