Course Blocks

6th Grade Science

Dear teacher,

Science, especially for the younger students, should rely heavily on observation and discussion. Many times children notice things that adults miss, but likewise, many times adults can clarify the questions that children have. As such, both teacher and child are able to be scientists together.

The text chosen as a guide for this course is *Handbook of Nature Study* by Anna Botsford Comstock. It was chosen not for its Christian worldview or because it avoids talk of evolution, for neither are true of the text. Instead, it was chosen because of its unwavering zeal for observation of nature. In the observation of nature, even the youngest child can see the wonder and beauty of God's creation.

Do not use the text as a student textbook. Even a handbook of nature study can soon become an obstacle between students and their observation of nature, for soon the student relies on the words they see rather than the nature they can observe. As a teacher, however, it is many times helpful to arm yourself with additional information, especially when it comes to teaching the students the correct vocabulary of nature observation.

Enjoy your study of God's creation!

Link to **6th Grade Science** text

News forum

Week 1

Topics:

- Creation
- Days of Creation
- Day 6

Words to Remember:

- Create(d)
- Called (as in "named")
- Genesis 1:1-5 (review from 1st grade)
- Genesis 1:6-8 (review from 2nd grade)
- Genesis 1:9-13 (review from 3rd grade)
- Genesis 1:14-19 (review from 4th grade)
- Genesis 1:20-23 (review from 5th grade)
- Genesis 1:24-31

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- (Teacher resource) Read The Meaning of Day
- (Teacher resource) Read Did God create in 6 days or billions of years?
- (Teacher resource) Read On the sixth day

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.

Suggested Daily Schedule:

- Day 1:
  - Read Genesis 1
    - (Class activity) Discuss:
      - What does the word CREATE mean?

        - Have some examples ready if the students don't know: If I put Legos together, what did I do? If I draw a picture, what did I do? Feel free, if time allows, to have students demonstrate any of these things. In coming days/weeks, you can reference how when we create things we have to go step by step, but when God created, with the exception of creating man, He spoke things into being rather than having to go step by step.
    - What does the word CALLED mean?
        - Have some examples ready if the students don't know: What do your parents call you? (son, daugther, by my name) So, you are called (insert child's name). Feel free to use other examples.
    - (Class activity) Write out what was created on each day as it was recorded in the Bible passage you just read
    - (Individual activity) Referencing the list you made, draw/color the 7 days of creation- be sure to practice your numbers and label the days!
        - Click here for a chart template you can print and copy for the students
- Day 2: Read Genesis 1:24-31
    - Begin memorizing these verses (you have all year to get it done, but the sooner they get it done the better as then you can have them recite it at the beginning of each Science session)
    - Have students get out or finish their drawings from the previous class session
    - (Class activity) Discuss:
        - What existed before creation? (verses 1-2)
            - Look for answers like God, nothing, dark, etc. If you aren't getting any answers, read it again, make a list of the words they hear, and then work through that list to help them think about what existed before creation.
        - What did God make on the 6th Day? (verse 24-31)
        - Have students look at their drawings
        - Make a list of words on the board- feel free to reread the passage if need be- of the things God created on the 6th Day (You will get answers like light, Day, Night, perhaps even evening and morning
        - Reference your previous discussion of the words CREATE(D) and CALLED
            - Ask the students again, "Which of these did God CREATE?"
            - Which of these things did God CALL (name)?

Week 2

Topics:

- Animal taxonomy

Words to Remember:

- Kinds
- Kingdom
- Phylum
- Class
- Order
- Family
- Genus
- Species
- Genesis 1:24-31

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- A Biblically Based Taxonomy?
- Teacher Resource: Carl Linnaeus
    - Note: This article is not written from a Christian worldview, yet it makes interesting observations from Linnaeus' life.
    - Teachers can decide if this article is appropriate to share with students. It could certainly be a rich source of discussion, especially in relation to A Biblically Based Taxonomy.

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.

Suggested Daily Schedule:

Day 1:

- Define:
    - Kinds
        - Compare the dictionary definition you find to the definition from http://webstersdictionary1828.com/

    - Kingdom
    - Phylum
    - Class
    - Order
    - Family
    - Genus
    - Species
- Read: Begin reading A Biblically Based Taxonomy? p. 1-4 (to Boundaries for "Kinds" Reproduction)
- Discuss:
    - What did Carl Linnaeus do?
    - Upon what did Linnaeus base his worldview?
    - What challenges face scientists as it relates to classifying animals?
    - Discuss worldview as it relates to science and why it is important.
- Explore more:
    - Look at A General System of Nature (*Systema Naturae* translated)
    - Discuss:
        - What observations do you make?
        - What more do you learn about Linnaeus from reading his work?

Day 2:

- Read Genesis 1:24-31
- Read: Finish reading A Biblically Based Taxonomy?
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Week 3

Topics:

- Animal taxonomy

Words to Remember:

- Naturalism: a philosophical viewpoint according to which everything arises from natural properties and causes, and supernatural or spiritual explanations are excluded or discounted
- Species: a group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding. The species is the principal natural taxonomic unit, ranking below a genus and denoted by a Latin binomial, e.g., Homo sapiens.
    - 1828 Webster's Dictionary definition: a collection of organized beings derived from one common parentage by natural generation, characterized by one peculiar from one common parentage by natural generation, characterized by one peculiar form, liable to vary within certain narrow limits. These accidental and limited variations are varieties. Different races from the same parents are called varieties.
- Genesis 1:24-31

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- Fixity of Species
- Linnaeus - Regnum Animale (1735)

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.

Suggested Daily Schedule:

Day 1:

- Define:
    - Naturalism
- Discuss:
    - Why is a naturalistic worldview troubling for Christians? (return to this question as you read this week)
- Read: Begin reading Fixity of Species p. 1-3 (to Implications)
- Explore:
    - You have looked at Systema Naturae. Now, look specifically at Linnaeus - Regnum Animale (1735)
    - Using any Latin you know (or a good dictionary), what can you deduce about how he sorted animals?
    - What are his main categories? (4-footed animals, Birds, Amphibians, Fish, Insects, Worms)

Day 2:

- Read: Genesis 1:24-31
- Read: Finish reading Fixity of Species
- Discuss:
  - Why is language important in all things, but specifically, in studying and discussing science?

Week 4

Topics:

- What was on the ark?

Words to Remember:

- baraminology: a taxonomy based upon the created kinds
- cognitum: a group of organisms that are naturally grouped together through human cognitive senses
- John Ray: (1627–1705), English naturalist. He was the first to classify flowering plants into monocotyledons and dicotyledons, and he established the species as the basic taxonomic unit.
- Genesis 1:24-31

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- John Ray—Founder of Biology and Devout Christian
- Ark Kinds

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.

Suggested Daily Schedule:

Day 1:

- Define:
  - Baraminology
  - Cognitum
- Discuss:
  - Why does it matter if we know which animals were on the ark? (return to this question as you read)
- Read: Begin reading Ark Kinds
  - Note: Ark Kinds is a research paper and as such, may feel very dense. We recommend you read the paper in small chunks and discuss what you are reading as you go along. Alternately, teachers may have students read this less dense article: No Kind Left Behind

Day 2:

- Read: Genesis 1:24-31
- Read: Finish reading Ark Kinds
- Explore:
  - Read John Ray—Founder of Biology and Devout Christian
  - Discuss: How did John Ray's work lay the foundation for scientists to see Scripture and science as compatible.

Week 5

Topics:

- Evolution

Words to Remember:

- Evolution
- Theory: a supposition or a system of ideas intended to explain something, esp. one based on general principles independent of the thing to be explained ORIGIN late 16th cent. (denoting a mental scheme of something to be done): via late Latin from Greek theōria ‘contemplation, speculation,’ from theōros ‘spectator.’
- Fact: a thing that is indisputably the case

- Law: a statement of fact, deduced from observation, to the effect that a particular natural or scientific phenomenon always occurs if certain conditions are present ORIGIN Old English lagu, from Old Norse lag ‘something laid down or fixed,’
- Hypothesis: a supposition or proposed explanation made on the basis of limited evidence as a starting point for further investigation ORIGIN late 16th cent.: via late Latin from Greek hupothesis ‘foundation,’ from hupo ‘under’ + thesis ‘placing.’

- Genesis 1:24-31

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- Evolution- The Anti-Science
- Compatability of Science and Religion
- Is Evolution a Theory or Fact?

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck

Suggested Daily Schedule:

Day 1:

- Define:
  - Evolution
  - Theory: a supposition or a system of ideas intended to explain something, esp. one based on general principles independent of the thing to be explained ORIGIN late 16th cent. (denoting a mental scheme of something to be done): via late Latin from Greek theōria ‘contemplation, speculation,’ from theōros ‘spectator.’
  - Fact: a thing that is indisputably the case
  - Law: a statement of fact, deduced from observation, to the effect that a particular natural or scientific phenomenon always occurs if certain conditions are present ORIGIN Old English lagu, from Old Norse lag ‘something laid down or fixed,’
  - Hypothesis: a supposition or proposed explanation made on the basis of limited evidence as a starting point for further investigation ORIGIN late 16th cent.: via late Latin from Greek hupothesis ‘foundation,’ from hupo ‘under’ + thesis ‘placing.’
- Discuss:
  - As you study Science, you learn that there have been different controversies in the world of science throughout history.
  - Can you think of any controversies? (geocentric vs. heliocentric, etc.)
  - One controversy that has largely impacted science, especially since the 1800s, is that of evolution.
  - One of the major issues in the debate over evolution is that of language.
  - This week, we will be reading articles from two sources: the National Academy of Sciences (which has a huge impact on so many things related to education) and Answers in Genesis
  - As you read, your task is to look carefully at the language used and any contradictions that exist. Think about the following questions as you read:
    - Does everyone use their language correctly?
    - How do we determine the correct use of words?
    - Why is it is so important that we take God at His Word?
- Read: Evolution- The Anti-Science

Day 2:

- Read: Genesis 1:24-31
- Read: Is Evolution a Theory or Fact?
- Read: Compatability of Science and Religion
- Discuss:
  - If you have studied Logic, apply the principles you learned as it relates to forming arguments.
  - Can you identify the fallacies in these readings?
  - Where do they contradict themselves? (Example: the definitions of "fact" and the logical end to those definitions)
    - Note: Next week students will be analyzing some basic assumptions of evolution and creation
- Discuss:
  - Next week we will explore some of the main tenets of arguments on different sides of the Origins debate. Until then, what are some questions you have and/or initial observations you have made?

Week 6

Topics:

- Basic assumptions of different worldviews

Words to Remember:

- Evolution
- Theistic Evolution
- Creationism
- Science Theory
- Genesis 1:24-31

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- The Principles of Science Theory
- The Basic Assumptions of Evolution
- The Basic Assumptions of Creationism
- The Basic Assumptions of Theistic Evolution

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck

Suggested Daily Schedule:

Day 1:

- This week we will be reading and noting the basic assumptions of Evolution, Theistic Evolution, Creationism and the principles of Science Theory
- To begin, we will read The Principles of Science Theory and The Basic Assumptions of Evolution
- Define:
  - Science Theory
  - Evolution
- Note:
  - What are the principles of Science Theory?
  - What are the basic assumptions of Evolution?
  - Is there any agreement between the two?
  - In what ways do they disagree?
- Discuss:
  - Our worldview is the lens through which we interpret the world around us.
  - What are the beliefs that form the worldviews of those who believe Evolution and Science Theory? (no absolute knowledge, etc.)
  - What impact do such worldviews have on other areas of life? (sanctity of human life, marriage, etc.)
-

Day 2:

- Read: Genesis 1:24-31
- Read: The Basic Assumptions of Creationism and The Basic Assumptions of Theistic Evolution
- Define:
  - Creationism
  - Theistic Evolution
- Note:
  - What are the basic assumptions of Creationism?
  - What are the basic assumptions of Theistic Evolution?
  - Is there any agreement between the two?
  - In what ways do they disagree?
- Discuss:
  - Our worldview is the lens through which we interpret the world around us.
  - What are the beliefs that form the worldviews of those who believe Creationism and Theistic Evolution? (the Bible is the inerrant word of God vs. the Bible is subject to human interpretation)
  - What impact do such worldviews have on other areas of life? (sanctity of human life, marriage, etc.)

Week 7

Topics:

- Animals
- Extinct animals
- Dinosaurs

Words to Remember:

- Genesis 1:24-31
- Extinct: having no living members ORIGIN late Middle English (in the sense ‘no longer alight’): from Latin exstinct- ‘extinguished,’ from the verb exstinguere

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck

Suggested Daily Schedule:

Day 1:

- Review: Which animals were created on the 6th day? (Genesis 1:24-25)
- Read the note in the *Lutheran Study Bible* on Genesis 1:24. What were the three types of animals?
  - "livestock. Word commonly used for domesticated animals such as cattle or oxen but also for animals in general. creeping things. May refer here specifically to reptiles, but is also at times used to refer to animals in general (9:3). beasts. General term (lit, “living things”); may be used here as a kind of catchall for everything that does not fall into the other two categories, perhaps implying wild animals as opposed to the domesticated animals of the first group."
- Define:
  - Extinct
- Note:
  -
- View:
  - Watch Dinosaurs and the Bible (parts 1 and 2)
  - Note: Dr. Lisle, at the beginning of the video, talks about the 7 C's of history. You can read more about that here. Especially the last C can be a good opportunity to discuss what the Bible says about the end times. The *Lutheran Study Bible* has some good notes in Rev. 21-22 and elsewhere.
- Discuss:
  - What are some incorrect assumptions that people make about dinosaurs (or other extinct animals)?
  - From where do we derive these assumptions? (Hollywood, etc.)
  - Why is it important to derive our worldview from Scripture? (as opposed to the alternative of viewing Scripture through the view of the world)
  - What other interesting and/or important observations did you make from Dr. Lisle's presentation?
-

Day 2:

- Read: Genesis 1:24-31
- Read: Read the following short articles about different kinds of dinosaurs
  - Hypsilophodon
  - T. rex
  - Sauropods
  - Albertaceratops
- Discuss:
  - We speak often that learning science doesn't just happen in Science class, learning history doesn't just happen in History class, etc. We also say that going "back to the sources" is a great way to learn! The Bible, which is the inspired, inerrant Word of God, is a great original source. We also have other sources throughout history that can teach us about God's creation.
  - When you are taking a walk, you might see something interesting and tell your parents about it. You could also write down what you saw and people many years later could read about what you saw on your walk. When we read stories and historical accounts from the path, we can learn something about what the writers and their contemporaries experienced.
- Read: Dragon Legends- Truths behind the tales
- Read:
  - The Ishtar Gate (see below)
  - Beowulf (several translations exist: Hall translation, Morris and Wyatt translation,)

- The Travels of Marco Polo Vol. 2: (scroll down to chapter XLIX and begin reading)
- Discuss:
  - How were dragons/dinosaurs described?

The Ishtar Gate

Week 8

Topics:

- Animals
- Extinct animals
- Ice Age Animals

Words to Remember:

- Genesis 1:24-31
- Extinct: having no living members ORIGIN late Middle English (in the sense ‘no longer alight’): from Latin exstinct- ‘extinguished,’ from the verb exstinguere

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck

Suggested Daily Schedule:

Day 1:

- Read: Why Were the Animals So Big?
- Define:
  - Cope's Rule
  - Bergmann's Rule
- Note:
  -
- Discuss:
  - What observations did you make from the article?

Day 2:

- Read: Genesis 1:24-31
- Read: Living Large in the Ice Age
- Discuss:
  - About what animals did you read and why might they have been very large during the Ice Age?
- Bonus reading:
  - Frozen in Time (scroll down and click to read each chapter)
- Bonus discussion:
  - Animals from the Ice Age have fascinated people for centuries. Recently, a series of animated movies have been made about the Ice Age. If you have seen the movies (or trailers), what is or is not true to the history about which you have read today? Are movies such as these helpful, harmful, or neutral in telling the truth about God's creation? Is it necessary to always portray God's creation in a truthful manner?

Week 9

Topics:

- Animals
- Domesticated animals
  - Farm animals
  - Cats

    - Dogs

Words to Remember:

- Genesis 1:24-31
- Domesticated: tame and kept as a pet or on a farm ORIGIN mid 17th cent.: from medieval Latin domesticat- ‘domesticated,’ from the verb domesticare, from Latin domesticus ‘belonging to the house’
- Mutation: the changing of the structure of a gene, resulting in a variant form that may be transmitted to subsequent generations, caused by the alteration of single base units in DNA, or the deletion, insertion, or rearrangement of larger sections of genes or chromosomes. ORIGIN late Middle English: from Latin mutatio(n-), from mutare ‘to change.’
-

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck

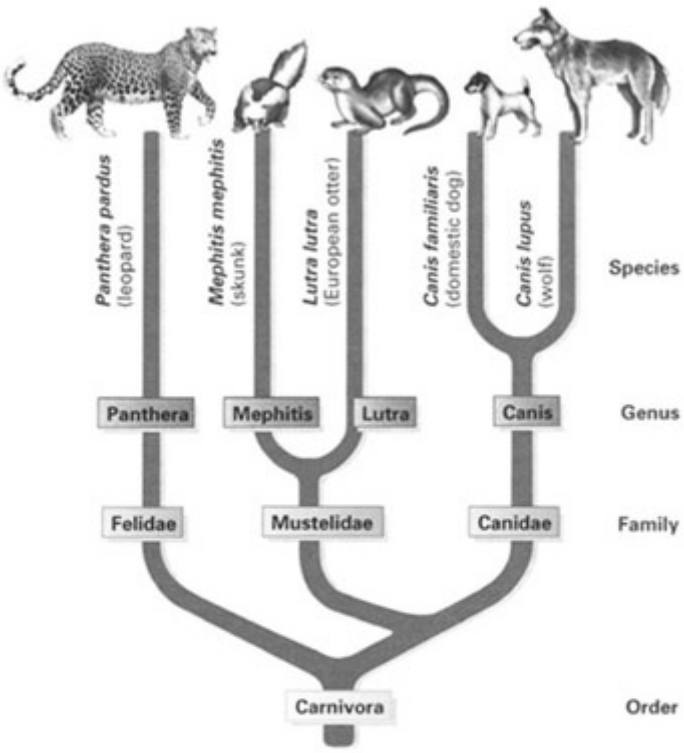
Suggested Daily Schedule:

Day 1:

- Discuss:
    - For what purposes did God create animals?
- Read: The Effect of Mutations Down on the Farm
- Define:
    - Domesticated
    - Mutation
- Note:
    -
- Discuss:
    - How is it that mutations can happen and kinds of animals can survive?
    - When are mutations beneficial?
    - When are mutations detrimental?
- Bonus discussion:
    - Find a farmer and ask him or her about how mutations impact his or her domestic animals.

Day 2:

- Read: Genesis 1:24-31
- Read:(These may take some time and should potentially be assigned ahead of time)
    - Purring Cats and Roaring Tigers
    - How Domestic Cats Differ from Wildcats and Other Carnivores
    - Obscured Knowledge of Original Domestic Dog
- Discuss:
    - What is the difference between domesticated animals and wild animals?
- Activity:
    - Think of a pet or farm animal.
    - Draw a "family tree" for the animal (to the best of your ability)
    - How does the animal's family tree compare to this family tree: (the family tree you made should not contain different kinds of animals)



▲ **Figure 15-25** In a phylogenetic tree, each branch point represents a common ancestor of the species above that point. In this diagram, the branches are labeled to reinforce how taxonomy reflects the branching pattern of evolution.

Week 10

Topics:

- Animals
- Reptiles

Words to Remember:

- Genesis 1:24-31
- Reptile: a cold-blooded vertebrate of a class that includes snakes, lizards, crocodiles, turtles, and tortoises. They are distinguished by having a dry scaly skin, and typically laying soft-shelled eggs on land ORIGIN late Middle English: from late Latin, neuter of reptilis, from Latin rept- ‘crawled,’ from the verb repere .
- Cold-blooded: having a body temperature varying with that of the environment; poikilothermic. (an organism that cannot regulate its body temperature except by behavioral means such as basking or burrowing)
- Vertebrate: an animal of a large group distinguished by the possession of a backbone or spinal column, including mammals, birds, reptiles, amphibians, and fishes. ORIGIN early 19th cent.: from Latin vertebratus ‘jointed,’ from vertebra

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck

Suggested Daily Schedule:

Day 1:

- Discuss:
  - For what purposes did God create reptiles?
- Read:
  - American Alligator
  - Sea Turtles
- Define:
  - Reptile
  - Cold-blooded
  - Vertebrate
- Note:

- Discuss:
  - What characteristics of sea turtles and alligators qualify them to be reptiles?
  - What did you find fascinating about sea turtles and alligators?
- View:

Day 2:

- Read: Genesis 1:24-31
- Read:
  - Pythons and Boas
  - Box Turtles
  - Chameleons
- Discuss:
  - What characteristics of pythons, boas, box turtles, and chameleons qualify them to be reptiles?
  - What did you find fascinating about pythons, boas, box turtles, and chameleons?
- View: (Note: teachers should view video first as it demonstrates clearly creation after the Fall)

Week 11

Topics:

- Animals
- Reptile anatomy

Words to Remember:

- Genesis 1:24-31Carpus
- Caudal vertebrae(tail): series of small bones forming the backbone at or near the tail or the posterior part of the body ORIGIN mid 17th cent.: from modern Latin caudalis, from Latin cauda ‘tail.’
- Cervical vertebrae (neck): each of the series of small bones forming the backbone at the neck ORIGIN late 17th cent.: from French, or from modern Latin cervicalis, from Latin cervix, cervic- ‘neck.’
- Femur or thigh bone: the bone of the thigh or upper hind limb, articulating at the hip and the knee ORIGIN late 15th cent.: from Latin femur, femor- ‘thigh.’
- Fibula: the outer and usually smaller of the two bones between the knee and the ankle parallel with the tibia ORIGIN late 16th cent.: from Latin, ‘brooch,’ perhaps related to figere ‘to fix.’ The bone is so named because the shape it makes with the tibia resembles a clasp, the fibula being the tongue.

- Fifth toe: the outermost toe
- First toe: innermost toe
- Humerus: the bone of the upper arm or forelimb, forming joints at the shoulder and the elbow ORIGIN late Middle English: from Latin, ‘shoulder.’
- Ilium: the large broad bone forming the upper part of each half of the pelvis. ORIGIN late 16th cent.: from Latin, singular of ilia ‘flanks, entrails.’
- Lower jaw or mandible: the jaw or a jawbone, especially the lower jawbone ORIGIN late Middle English: from Old French, or from late Latin mandibula, from mandere ‘to chew.’
- Lumbar vertebrae (lumbar region): series of small bones forming the backbone at the lower part of the back ORIGIN mid 17th cent.: from medieval Latin lumbaris, from Latin lumbus ‘loin.’
- Metatarsus: the group of bones in the foot, between the ankle and the toes
- Neck vertebrals: each of the series of small bones forming the backbone at the neck
- Phalanges of the hand: bones of the finger
- Plastron: the part of a tortoise's or turtle's shell forming the underside ORIGIN early 16th cent.: from French, from Italian piastrone, augmentative of piastra ‘breastplate,’ from Latin emplastrum ‘medical dressing’
- Radius: the thicker and shorter of the two bones in the foreleg ORIGIN late 16th cent. from Latin, literally ‘staff, spoke, ray.’
- Ribs: each of a series of slender curved bones articulated in pairs to the spine, protecting the thoracic cavity and its organs ORIGIN Old English rib, ribb (noun), of Germanic origin; related to Dutch rib(be) and German Rippe.
- Sacral vertebrae: each of the series of small bones forming the backbone at the base of the spine near the sacrum
- Sacrum (pelvic cavity): a triangular bone in the lower back formed from fused vertebrae and situated between the two hipbones of the pelvis. ORIGIN mid 18th cent.: from Latin os sacrum, translation of Greek hieron osteon ‘sacred bone’ (from the belief that the soul resides in it).
- Scapula: shoulder blade ORIGIN late 16th cent.: from late Latin, singular of Latin scapulae ‘shoulder blades.’
- Shoulder bone: the joint of the upper forelimb and the adjacent part of the back. ORIGIN Old English sculdor; related to Dutch schouder and German Schulter .
- Skull: a framework of bone or cartilage enclosing the brain of a vertebrate ORIGIN Middle English scolle; of unknown origin; compare with Old Norse skoltr .
- Tarsus or ankle bone: the shank or tarsometatarsus of the leg of a bird or reptile ORIGIN late Middle English: modern Latin, from Greek tarsos ‘flat of the foot, the eyelid.’
- Third toe: middle toe
- Thoracic vertebrae: each of the twelve bones of the backbone to which the ribs are attached
- Tibia: the inner and typically larger of the two bones between the knee and the ankle (or the equivalent joints in other terrestrial vertebrates), parallel with the fibula ORIGIN late Middle English: from Latin, ‘shin bone.’
- Ulna: the thinner and longer of the two bones in a quadruped's foreleg
- esophagus: the part of the alimentary canal that connects the throat to the stomach; the gullet
- trachea: a large membranous tube reinforced by rings of cartilage, extending from the larynx to the bronchial tubes and conveying air to and from the lungs; the windpipe ORIGIN late Middle English: from medieval Latin, from late Latin trachia, from Greek trakheia (artēria)‘rough (artery),’ from trakhus ‘rough.’
- tracheal lungs: allows for gas exchange when gastric contents preclude normal pulmonary function
- rudimentary left lung: functions as an air sac for gas exchange and contains part of the respiratory tract; shorter than the right lung or nonexistent in some snakes
- right lung: elongated lung in snakes
- heart: a hollow muscular organ that pumps the blood through the circulatory system by rhythmic contraction and dilation. ORIGIN Old English heorte, of Germanic origin; related to Dutch hart and German Herz, from an Indo-European root shared by Latin cor, cord- and Greek kēr, kardia .
- liver: a large lobed glandular organ in the abdomen of vertebrates, involved in many metabolic processes. The liver's main role is in the processing of the products of digestion into substances useful to the body. It also neutralizes harmful substances in the blood, secretes bile for the digestion of fats, synthesizes plasma proteins, and stores glycogen and some minerals and vitamins.
- stomach: the internal organ in which the major part of the digestion of food occurs ORIGIN Middle English: from Old French estomac, stomaque, via Latin from Greek stomakhos ‘gullet,’ from stoma ‘mouth.’ The early sense of the verb was ‘be offended at, resent’ (early 16th cent).
- air sac: a lung compartment containing air
- gall bladder: the small sac-shaped organ beneath the liver, in which bile is stored after secretion by the liver and before release into the intestine
- pancreas: a large gland behind the stomach that secretes digestive enzymes into the duodenum ORIGIN late 16th cent.: modern Latin, from Greek pankreas, from pan ‘all’ + kreas ‘flesh.’
- spleen: an abdominal organ involved in the production and removal of blood cells in most vertebrates and forming part of the immune system ORIGIN Middle English: shortening of Old French esplen, via Latin from Greek splēn .
- intestine: the lower part of the alimentary canal from the end of the stomach to the anus ORIGIN late Middle English: from Latin intestinum, neuter of intestinus, from intus ‘within.’
- testicles: either of the two oval organs that produce sperm ORIGIN late Middle English: from Latin testiculus, diminutive of testis ‘a witness’ (i.e., to virility).

- kidneys: each of a pair of organs in the abdominal cavity of mammals, birds, and reptiles, excreting urine

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Snake anatomy quiz
- Tortoise skeleton quiz
- Crocodile skeleton quiz
-

Suggested Daily Schedule:

Day 1:

- Discuss:
  - For what purposes did God create reptiles?
- Define:
  - Words to remember (make flashcards)
- Read:
  -
- Define:
  -
- Note:
  -
- Discuss:
  -
- View:
  -
  -

Day 2:

- Read: Genesis 1:24-31
- Read:
  - Work with the anatomy diagrams and answer keys to match the words to remember with the diagrams
- Discuss:
  - Study!!
- View:
  -

Crocodile skeleton quiz answers

Tortoise skeleton quiz answers

Snake quiz answers

Week 12

Topics:

- Animals
- Insects

Words to Remember:

- Genesis 1:24-31
- Insect: a small arthropod animal that has six legs and generally one or two pairs of wings ORIGIN early 17th cent. (originally denoting any small cold-blooded creature with a segmented body): from Latin (animal) insectum ‘segmented (animal)’ (translating Greek zōion entomon), from insecare ‘cut up or into,’ from in- ‘into’ + secare ‘to cut.’
- bioluminescence: the biochemical emission of light by living organisms such as fireflies and deep-sea fishes

- Egg: an oval or round object laid by a female bird, reptile, fish, or invertebrate, usually containing a developing embryo ORIGIN Middle English: from Old Norse eggja ‘incite.’
- Larva: the active immature form of an insect, especially one that differs greatly from the adult and forms the stage between egg and pupa ORIGIN mid 17th cent. (denoting a disembodied spirit or ghost): from Latin, literally ‘ghost, mask.’
- Caterpillar: the larva of a butterfly or moth, having a segmented wormlike body with three pairs of true legs and several pairs of leglike appendages. Caterpillars may be hairy, have warning coloration, or be colored to resemble their surroundings. ORIGIN late Middle English: perhaps from a variant of Old French chatepelose, literally ‘hairy cat,’ influenced by obsolete piller‘ravager.’ The association with “cat” is found in other languages, e.g., Swiss German Teufelskatz (literally ‘devil's cat’), Lombard gatta (literally ‘cat’).
- Chrysalis: a quiescent insect pupa, especially of a butterfly or moth. ORIGIN early 17th cent.: from Latin chrysal(l)is, chrysal(l)id-, from Greek khrusallis, from khrusos ‘gold’ (because of the gold color or metallic sheen of the pupae of some species).
- Metamorphosis: the process of transformation from an immature form to an adult form in two or more distinct stages. ORIGIN late Middle English: via Latin from Greek metamorphōsis, from metamorphoun ‘transform, change shape.’
- Queen bee: the single reproductive female in a hive or colony of honeybees.
- Drone bee: a male bee in a colony of social bees, which does no work but can fertilize a queen. ORIGIN Old English drān, drǣn‘male bee,’ from a West Germanic verb meaning ‘resound, boom’; related to Dutch dreunen ‘to drone,’German dröhnen ‘to roar,’ and Swedish dröna ‘to drowse.’
- Worker bee: any female bee that lacks the full reproductive capacity of the colony's queen bee

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck

Suggested Daily Schedule:

Day 1:

- Discuss:
  - What does insect mean? Look especially at the Origin.
  - Keep this in mind as you take a closer look at a few insects.
- Read:
  - Ants
  - Lightning Bugs- The Beetle Beacons
- Define:
  - Insect
  - bioluminescence
  -
- Note:
  -
- Discuss:
  - What characteristics of ants and lightning bugs qualify them to be insects?
  - What did you find fascinating about lightning bugs and ants?
  - How does a lightning bug light up?
- View:
  -
  -
- Science activity:
  - By the time you get to this lesson, lightning bugs will probably be gone. Put a note on your calendar to look for lightning bugs in the summer.
  - In the meantime, check out some of these videos of lightning bugs!
- Science activity:
  - Go exploring for ants.
  - Where did you find them? How did you know they were there? Where do they go?

Day 2:

- Read: Genesis 1:24-31
- Read:

    - Marvels of the Monarch
    - Honeybees
- Discuss:
    - What characteristics of butterflies and honeybees qualify them to be insects?
    - What did you find fascinating about butterflies honeybees?
- Define:
    - Egg
    - Larva
    - Caterpillar
    - Chrysalis
    - Metamorphosis
    - Queen bee
    - Drone bee
    - Worker bee
- View:
    - Follow this link and scroll down to watch a video about metamorphosis. (Feel free to read the article on the page, too!)
- View:
    - Monarch Migration maps (Be sure to check back! This link has the current map on the left side. Click that map to see a larger map and buttons to choose dates, animate the map, etc. The other link takes you to the archives)
    - Follow the migration of the monarchs and/or check out the archives.
    - What do you observe?
    - Where do monarchs go? Is it the same every year?
- Science activity:
    - Keep track of the migration of the monarchs at This link.
    - Consider mapping the route of the butterflies on your own map, perhaps using a different color for each season.
    - Be sure to set a schedule on your calendar so you don't forget to check in on the butterflies!

Week 13

Topics:

- Animals
- Insect anatomy

Words to Remember:

- Genesis 1:24-31Carpus(IV)
- (V): abdominal segment
- (VI): abdominal segment
- (VII): abdominal segment
- abdomen: the posterior part of the body of an arthropod, especially the segments of an insect's body behind the thorax
- abdominal segment: the posterior part of the body behind the thorax, consisting of up to ten similar segments
- ALITRUNK: three thoracic segments and the first abdominal segment in ants
- Episternum: the anterior part of the sidewall of a thoracic segment.
- antenna: either of a pair of long, thin sensory appendages on the heads of insects ORIGIN mid 17th cent.: from Latin, alteration of antemna ‘yard’ (of a ship), used in the plural to translate Greek keraioi ‘horns (of insects),’ used by Aristotle.
- Antennal fossa: The cavity or depression of the head into which the antenna is articulated ORIGIN mid 17th cent.: from Latin, literally ‘ditch,’ feminine past participle of fodere ‘to dig.’
- anterior spiracle: anterior of the two pairs of spiracles opening on the pleura (the pleura is the lateral part in an animal body or structure)
- arista: a bristle or bristle-like appendage
- basicosta: The distal one of the two plates in the axillary area of the wing along which the costa of the wing articulates
- Bulla: a rounded prominence ORIGIN Latin, literally ‘bubble.’
- calypters: either of two posterior lobes of the posterior margin of the forewing of flies between the extreme posterior wing base and the alula, which covers the halteres
- Clypeus: a broad plate at the front of an insect's head ORIGIN mid 19th cent.: from Latin, literally ‘round shield.’
- Compound eye: an eye consisting of an array of numerous small visual units, as found in insects and crustaceans
- Coxa: the first or basal segment of the leg of an insect. ORIGIN late 17th cent.: from Latin‚‘hip.’
- Femur: the third segment of the leg in insects and some other arthropods, typically the longest and thickest segment. ORIGIN late 15th cent.: from Latin femur, femor- ‘thigh.’
- Frontal lobes: A pair of longitudinal cuticular ridges or flanges on the head, located dorsally behind the clypeus and between the antennal sockets

- Funiculus: a bundle of nerve fibers enclosed in a sheath of connective tissue ORIGIN mid 17th cent.: from Latin, diminutive of funis ‘rope.’
- GASTER: bulbous posterior portion of the metasoma
- haltere: the balancing organ of a two-winged fly, seen as either of a pair of knobbed filaments that take the place of the hind wings, vibrating during flight.
  ORIGIN mid 16th cent. (originally plural, denoting a pair of weights like dumbbells held in the hands to give impetus when jumping): from Greek haltēres (plural), from hallesthai ‘to leap.’
- head: the front or upper part of the body of an animal
- Katepisternum: The lateral sclerites of the thorax proper, excluding the propodeum which is morphologically the tergite of the first abdominal segment
- labellum: each of a pair of lobes at the tip of the proboscis in some insects ORIGIN early 19th cent.: from Latin, diminutive of labrum ‘lip.’
- labium: a fused mouthpart that forms the floor of the mouth of an insect. ORIGIN late 16th cent. (in the general sense ‘lip, liplike structure’): from Latin, ‘lip’
- Mandibles: either half of the crushing organ in an arthropod's mouthparts. ORIGIN late Middle English: from Old French, or from late Latin mandibula, from mandere ‘to chew.’
- maxilary palps: The segmented sensory palp on the maxilla (palp=each of a pair of elongated segmented appendages near the mouth of an arthropod, usually concerned with the senses of touch and taste.)
- Mesonotum: The upper sclerite of a segment
- mesopleuron: The lateral sclerites of the thorax proper
- mesosternum: The ventral piece of the middle segment of the thorax in insects.
- Mesothoracic spiracle: An orifice of the tracheal system by which gasses enter and leave the body situated forward and quite high on the side of the segment
- Metanotum: dorsal sclerites
- Metapleural gland: An exocrine gland whose orifice is on the metapleuron
- metapleuron: pleuron of the metathorax
- metasternum: The ventral surfaces of the mesothorax and metathorax
- Metathoracic spiracle: dorsal orifice of the tracheal system by which gasses enter and leave the body
- Occiput: posterior part of the head capsule
- Orifice: an opening, as of a pipe or tube, or one in the body, such as a nostril or the anus. ORIGIN late Middle English: from French, from late Latin orificium, from os, or- ‘mouth’ + facere ‘make.’
- Petiole (II): second abdominal segment (AII), the segment that immediately follows the mesosoma
- posterior spiracle: posterior orifice of the tracheal system by which gasses enter and leave the body
- Postpetiole (III): Abdominal segment III
- prescutum: The first of the four pieces composing the dorsal part, or tergum, of a thoracic segment of an insect.
- Pronotum: The first (anterior) tergite on the mesosomal dorsum
- propleuron: pleuron of the prothorax
- Propodeal spiracle: the first abdominal spiracle
- Propodeum: the tergite of the first abdominal segment (the sternite of which is lost). It is immovably fused to the thorax and forms most of the posterior section of the mesosoma (= alitrunk)
- prosternum: small, usually shield-like sternite
- pseudotracheae: grooves on the labella which sop up liquids much like a sponge does
- Scape: the basal segment of an insect's antenna, especially when it is enlarged and lengthened ORIGIN early 19th cent.: via Latin from Greek skapos ‘rod’; related to scepter.
- sclerite: a component section of an exoskeleton, especially each of the plates forming the skeleton of an arthropod. ORIGIN mid 19th cent.: from Greek sklēros ‘hard’ + -ite1.
- Scutellum: the third dorsal sclerite in each thoracic segment of an insect. ORIGIN mid 18th cent.: modern Latin, diminutive of Latin scutum ‘shield.’
- scutum: the second dorsal sclerite in each thoracic segment of an insect. ORIGIN late 18th cent.: from Latin, literally ‘oblong shield.’
- spur: A spine-like appendage at the apex of the tibia
- Sternite: The lower or ventral sclerite of a segment
- Sting: a small sharp-pointed organ at the end of the abdomen of bees, wasps, ants, and scorpions, capable of inflicting a painful or dangerous wound by injecting poison
- Tarsal claw: at the end of the leg and responsible for clasping onto rougher surfaces.
- Tarsus: the foot or fifth joint of the leg of an insect or other arthropod, typically consisting of several small segments and ending in a claw.
- Tergite: a thickened dorsal plate on each segment of the body of an arthropod.ORIGIN early 19th cent.: from Latin, literally ‘back.’
- thorax: the middle section of the body of an insect, between the head and the abdomen, bearing the legs and wings.
- Tibia: the fourth segment of the leg of an insect, between the femur and the tarsus.
- Tibial spurs: One or two basally socketed spurs, located at the apex of each tibia
- tip:

- Trochanter: the small second segment of the leg of an insect, between the coxa and the femur.ORIGIN early 17th cent.: from French, from Greek trokhantēr, from trekhein ‘to run.’
- Ventral process:
- wing: each of two or four flat extensions of the thoracic cuticle, either transparent or covered in scales
- wing vein:

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Housefly anatomy quiz
- Ant anatomy quiz
- Ant anatomy quiz answers
-

Suggested Daily Schedule:

Day 1:

- Discuss:
  - For what purposes did God create insects?
- Define:
  - Words to remember (make flashcards)
  - Note: these are fairly technical terms, yet go far as to demonstrate the complexity and detail of even God's smallest creatures. Teachers may choose to have students learn only some of the terms if they desire.
- Read:
  -
- Define:
  -
- Note:
  -
- Discuss:
  -
- View:
  -
  -

Day 2:

- Read: Genesis 1:24-31
- Read:
  - Work with the anatomy diagrams and answer keys to match the Words to Remember with the diagrams
- Discuss:
  - Study!!
- View:

Housefly anatomy quiz answers

Week 14

Topics:

- Animals
- Spiders
- Worms
-

Words to Remember:

- Genesis 1:24-31

- Anus: the opening at the end of the alimentary canal through which solid waste matter leaves the body. ORIGIN late Middle English: from Latin, originally ‘a ring.’
- Aorta: the main artery of the body, supplying oxygenated blood to the circulatory system. ORIGIN mid 16th cent.: from Greek aortē (used in the plural by Hippocrates for the branches of the windpipe, and by Aristotle for the great artery), from aeirein ‘raise.’
- Bladder: a membranous sac in humans and other animals, in which urine is collected for excretion
- Book lung: each of a pair of respiratory organs composed of many fine leaves. They are situated in the abdomen and have openings on the underside.
- Brain: organ that serves as the center of the nervous system in all vertebrate and most invertebrate animals
- Circular muscle layer: outer layer of muscles
- Coelom (body cavity): the body cavity in metazoans, located between the intestinal canal and the body wall. ORIGIN late 19th cent.: from Greek koilōma ‘cavity.’
- Cuticle: a protective and waxy or hard layer covering the epidermis of a plant, invertebrate, or shell ORIGIN late 15th cent. (denoting a membrane of the body): from Latin cuticula, diminutive of cutis ‘skin.’
- Digestive cecum: Lateral canal located in the anterior portion of the intestine where especially a part of digestion and fermentation take place. ORIGIN late Middle English: from Latin (intestinum) caecum ‘blind (gut),’ translation of Greek tuphlon enteron .
- Digestive tubule: Organs producing a secretion that contributes to digestion.
- Dorsal blood vessel: blood flows through it anterior (forward)
- Esophagus: the part of the alimentary canal that connects the throat to the stomach
- Fang: the biting mouthpart of a spider. ORIGIN late Old English (denoting booty or spoils), from Old Norse fang ‘capture, grasp’; compare with vang. A sense ‘trap, snare’ is recorded from the mid 16th cent.; both this and the original sense survive in Scots. The current sense (also mid 16th cent.) reflects the same notion of ‘something that catches and holds.’
- Heart: a hollow muscular organ that pumps the blood through the circulatory system by rhythmic contraction and dilation
- Intestine: the lower part of the alimentary canal from the end of the stomach to the anus or the whole alimentary canal from the mouth downward. ORIGIN late Middle English: from Latin intestinum, neuter of intestinus, from intus ‘within.’
- Lateral neural blood vessel: very small vessels to either side of the ventral nerve cord
- Longitudinal muscle layer: below circular muscles; thicker layer; feathered appearance
- Malpighian tubule: a tubular excretory organ, numbers of which open into the gut in insects and some other arthropods
- Metanephridium: ciliated funnel opening into the body cavity or coelom which pumps water carrying surplus ions, metabolic waste, toxins from food, and useless hormones out of the organism
- Nephric tubule: a tubule open to the exterior that acts as an organ of excretion
- Nephridiopore: the external opening of a nephridium
- Nephrostome: funnel-like component of a metanephridium
- Nerve cord: the major cord of nerve fibers running the length of an animal's body, especially a ventral cord in invertebrates that connects segmental nerve ganglia.
- Ovary: a female reproductive organ in which ova or eggs are produced ORIGIN mid 17th cent.: from modern Latin ovarium, from Latin ovum ‘egg.’
- Oviduct: the tube through which an ovum or egg passes from an ovary
- Pallial blood vessel:
- Peripheral nerve: nerve near the surface of the body
- Septum: a partition separating two chambers ORIGIN mid 17th cent.: from Latin septum, from sepire ‘enclose,’ from sepes ‘hedge.’
- Setae: a stiff hairlike or bristlelike structure, especially in an invertebrate ORIGIN late 18th cent.: from Latin, ‘bristle.’
- Silk gland: a gland in a silkworm, spider, or other arthropod that secretes the substance that hardens as threads of silk or web.
- Simple eye: a small eye of an insect or other arthropod that has only one lens
- Sperm receptacle: part of the spider that receives semen
- Spinneret: any of a number of different organs through which the silk, gossamer, or thread of spiders, silkworms, and certain other insects is produced.
- Stercoral pocket: A dilated portion of the proctodeum of certain spiders in which fecal matter and excreta temporarily accumulate
- Subneural blood vessel: runs alongside the ventral nerve cord and supplies it with oxygenated blood
- Sucking stomach: a widening of the posterior esophagus in spiders that functions as a pump
- Typhlosole: internal fold of the intestine or intestine inner wall
- Venom canal: runs through the fang
- Venom gland: stores the venom
- Ventral blood vessel: responsible for carrying blood to the back of the earthworm’s body

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Spider quiz and quiz answers
- Worm quiz and quiz answers

Suggested Daily Schedule:

Day 1:

- Discuss:
  - For what purposes did God create spiders?
- Read:
  - Hairy Horror or High-Tech Marvel?
- Discuss:
  - What did you find fascinating about spiders?
- Define:
  - Venom gland
  - Simple eye
  - Brain
  - Sucking stomach
  - Digestive cecum
  - Intestine
  - Heart
  - Venom canal
  - Fang
  - Esophagus
  - Book lung
  - Anus
  - Silk gland
  - Spinneret
  - Digestive tubule
  - Ovary
  - Sperm receptacle
  - Oviduct
  - Malpighian tubule
  - Stercoral pocket
  - Aorta
- Note:
  -
- Discuss:
  -
- View:
  - Spider quiz and quiz answers
  - Study!!

Day 2:

- Read: Genesis 1:24-31
- Define:
  - Dorsal blood vessel
  - Subneural blood vessel
  - Nephridiopore
  - Peripheral nerve
  - Lateral neural blood vessel
  - Ventral blood vessel
  - Metanephridium
  - Nephrostome
  - Typhlosole
  - Setae
  - Longitudinal muscle layer
  - Coelom (body cavity)
  - Bladder
  - Nerve cord

    - Nephric tubule
    - Intestine
    - Cuticle
    - Septum
    - Circular muscle layer
    - Pallial blood vessel
- Read:
    - Wonderful Worms
- Discuss:
    - What did you find fascinating about worms?
    - Study!!
- View:
- Activity:
    - If you have a garden or field, a neighbor with a garden or field, or someone nearby with a garden or field, ask if you can dig for earthworms.
    - Using this picture and this picture find the following on a worm:
        - setae
        - clitellum
        - segments
        - periproct
        - prostomium
        - prestomium
    - Observe the worm moving around.
    - What do you notice?

Week 15

Topics:

- Animals
- Animals for food
- Wild animals

Words to Remember:

- Genesis 1:24-31
-

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- Cuts of meat

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- The Close Relationship Between Humans and Animals

Suggested Daily Schedule:

Day 1:

- Read:
    - Genesis 9:1-17 (be sure to also check out the notes in *The Lutheran Study Bible*)
    - The 4th Petition of The Lord's Prayer and its meaning.
- Discuss:
    - What changed between man and animals after the flood?
    - What did God give to Noah and his family in terms of food?
    - What else do you learn from this passage and the 4th Petition in terms of God's provision?
    - Read The Close Relationship Between Humans and Animals
    - The article mentioned Genesis 1, but keeping in mind Genesis 9, what are the scientists from the news article missing in terms of the relationship between man and animals?
    - When we think of domesticated animals, we many times think of dogs, cats, and other pets. However, as we have discussed before, many other animals are also considered domesticated.

    - Make a list of animals that we use for food.
- Read:
    - Cuts of meat
    - Explore this site about cuts of meat
- Define:
    -
    -
- Note:
    -
- Discuss:
    -
- View:
    -
    -
- Science activity:
    - Take a trip to a local butcher or meat counter.
    - How many of the cuts of meat about which you learned are available?
    - What do the cuts of meat look like?
    - How many different ways can a piece of meat be cut? (Example, a pork loin can also be made into loin chops)
    - If possible, arrange a meeting with the butcher or meat department worker. Ask if you can observe the cutting of meat.
        - If a meeting is arranged, be sure to have a list of questions ready for the visit.
- Bonus activity:
    - If you live near a meat locker, see if you can visit when animals are unloaded (or any other part of the process).

Day 2:

- Read: Genesis 1:24-31
- Read:
    -
- Discuss:
    - God gave us not only domesticated animals, but also wild animals.
    - Make a list of animals that people hunt.
    - Throughout history, hunters have been good stewards of the animals they hunt. Most notably, perhaps, is the Native American use of the buffalo.
    - What is a steward?
    - Why are hunters good stewards of the animals they hunt?
- View:
    - Look at this diagram from the South Dakota Historical Society
- Discuss:
    - In what ways did the Native Americans use the buffalo?
    - What ways are most surprising?
    - Could you use the buffalo in all these ways? What would be most difficult?
- Science activity:
    - Find a hunter, perhaps you, a member of your family, a member of your congregation, or a member of your community.
    - Ask them to tell you about how they use the animals they hunt. Be sure to have questions ready!
        - Examples:
        - What do you do with the organs?
        - When do you cut the meat?
        - In what form do you use the meat? (ground, steaks, roasts, etc.)
        - Do you use anything besides the meat?

Week 16

Topics:

- Animals
- Animals and humans
- Evolution

Words to Remember:

- Genesis 1:24-31
-

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
-

Suggested Daily Schedule:

Day 1:

- Read:
  - Genesis 9:1-17 (be sure to also check out the notes in *The Lutheran Study Bible*)
- Discuss:
  - This week we are transitioning between the animals God created on the 6th day to the humans God created on the 6th day. We will be reading a chapter from a book written by Ken Ham and A. Charles Ware. The entire book is available online.
- Read:
  - The Human Kind
    - (spread this out over the week)
- Define:
  -
  -
- Note:
  -
- Discuss:
  - Things to ponder this week:
    - What is the difference between animals and humans?
    - How do people have different skin colors if we all came from Adam and Eve?
  -
- View:
  -
  -
- Science activity:
  -

Day 2:

- Read: Genesis 1:24-31
- Read:
  - The Human Kind
- Discuss:
  - There are many different discussions that could stem from this reading.
    - Example: Heredity
      - Feel free to draw things out on this Punnett Square
- View:
  -
- Discuss:
  -
-

Week 17

Topics:

- Humans
- Skeletal System

Words to Remember:

- Genesis 1:24-31
- Skeleton: an internal or external framework of bone, cartilage, or other rigid material supporting or containing the body ORIGIN late 16th cent.: modern Latin, from Greek, neuter of skeletos ‘dried up,’ from skellein ‘dry up.’
-

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
-

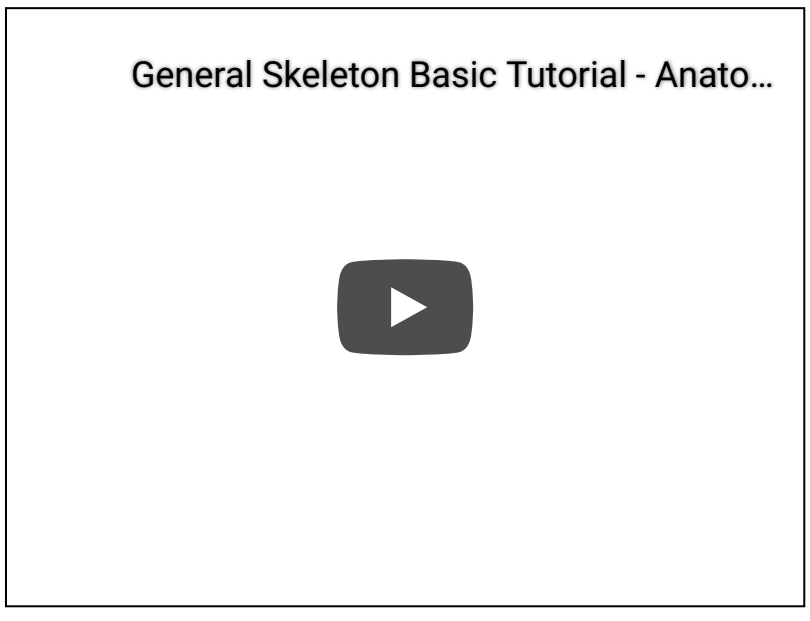
Suggested Daily Schedule:

Day 1:

- Read:
  - Genesis 2:1-25
- Discuss:
  - How did God create man?
  - Bones are frequently referenced in Scripture. Find some examples of bone references in The Bible.
- Read:
  - Bones
- Define:
  - Skeleton
  -
- Note:
  -
- Discuss:
  - What is the purpose of bones?
  - How do we see God's provision in how He created our skeleton?
  - What amazing things do bones do (besides protect us)?
- View:
  -
  -
- Science activity:
  -

Day 2:

- Read: Genesis 1:24-31
- Read:
  - The Amazing Regenerating Rib
- Discuss:
  - What is the purpose of ribs?
  - What do you find fascinating about ribs?
- View:
  - Skeleton Tutorial: While this video is rather long and simple, it gives a good overview of the skeleton. Students will be learning specific bones next week.



  -
- Discuss:

Week 18

Topics:

- Humans
- Skeletal System

Words to Remember:

- Genesis 1:24-31
- Skeleton
- Skull: a framework of bone or cartilage enclosing the brain of a vertebrate
- Cranium: the skull, especially the part enclosing the brain ORIGIN late Middle English: via medieval Latin from Greek kranion ‘skull.’
- Mandible: the jaw or a jawbone, especially the lower jawbone ORIGIN late Middle English: from Old French, or from late Latin mandibula, from mandere ‘to chew.’
- Clavicle: technical term for collarbone ORIGIN early 17th cent.: from Latin clavicula ‘small key,’ diminutive of clavis (because of its shape).
- Manubrium: the broad upper part of the sternum of mammals, with which the clavicles and first ribs articulate. ORIGIN mid 17th cent. (as a rare usage in the sense ‘handle’): from Latin, ‘haft.’
- Scapula: technical term for shoulder blade ORIGIN late 16th cent.: from late Latin, singular of Latin scapulae ‘shoulder blades.’
- Sternum: the breastbone ORIGIN mid 17th cent.: modern Latin, from Greek sternon ‘chest.’
- Ribs: each of a series of slender curved bones articulated in pairs to the spine (twelve pairs in humans), protecting the thoracic cavity and its organs.
- Humerus: the bone of the upper arm or forelimb, forming joints at the shoulder and the elbow. ORIGIN late Middle English: from Latin, ‘shoulder.’
- Ulna: the thinner and longer of the two bones in the human forearm, on the side opposite to the thumb ORIGIN late Middle English (denoting the humerus): from Latin; related to ell.
- Radius: the thicker and shorter of the two bones in the human forearm.
- Pelvic Girdle: the enclosing structure formed by the pelvis, providing attachment for the hind limbs or pelvic fins.
- Carpals: relating to the bones forming the human carpus (wrist)
- Metacarpals: any of the five bones of the hand.
- Phalanges: a bone of the finger or toe.
- Femur: the bone of the thigh articulating at the hip and the knee. ORIGIN late 15th cent.: from Latin femur, femor- ‘thigh.’
- Patella: the kneecap. ORIGIN late 16th cent.: from Latin, diminutive of patina ‘shallow dish.’
- Tibia: the inner and typically larger of the two bones between the knee and the ankle, parallel with the fibula. ORIGIN late Middle English: from Latin, ‘shin bone.’
- Fibula: the outer and usually smaller of the two bones between the knee and the ankle in humans ORIGIN late 16th cent.: from Latin, ‘brooch,’ perhaps related to figere ‘to fix.’ The bone is so named because the shape it makes with the tibia resembles a clasp, the fibula being the tongue.
- Tarsals: The seven bones of the human tarsus form the ankle and upper part of the foot. They are the talus, calcaneus, navicular, and cuboid and the three cuneiform bones. ORIGIN late Middle English: modern Latin, from Greek tarsos ‘flat of the foot, the eyelid.’
- Metatarsals: any of the bones of the foot
- Phalanges: a bone of the finger or toe.
- Cervical Vertebrae (I-VII): of or relating to the neck ORIGIN late 17th cent.: from French, or from modern Latin cervicalis, from Latin cervix, cervic- ‘neck.’
- Thoracic Vertebrae (T I - T XII): each of the twelve bones of the backbone to which the ribs are attached.
- Lumbar Vertebrae (L I - L V): relating to the lower part of the back ORIGIN mid 17th cent.: from medieval Latin lumbaris, from Latin lumbus ‘loin.’
- Sacrum: a triangular bone in the lower back formed from fused vertebrae and situated between the two hipbones of the pelvis. ORIGIN mid 18th cent.: from Latin os sacrum, translation of Greek hieron osteon ‘sacred bone’ (from the belief that the soul resides in it).
- Coccyx: a small, triangular bone at the base of the spinal column formed of fused vestigial vertebrae. ORIGIN late 16th cent.: via Latin from Greek kokkux ‘cuckoo’ (because the shape of the human bone resembles the cuckoo's bill).
- Spinal Column: the spine; the backbone.

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students

- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Human Skeleton Quiz and Answers
-

Suggested Daily Schedule:

Day 1:

- Read:
  -
- Discuss:
  - The skeleton, as we have learned, is quite amazing.
  -
- Read:
  -
- Define:
  - Words to remember (make flashcards)
  -
- Note:
  -
- Discuss:
  - The word ulna, as you learned, is related to the Latin word ell. Ell is a former measure of length (equivalent to six hand breadths) used mainly for textiles, locally variable but typically about 45 inches. ORIGIN Old English eln, of Germanic origin; from an Indo-European root shared by Latin ulna. Compare with elbow and also with cubit (the measure was originally linked to the length of the human arm or forearm).
  - Where do read about cubits in the Bible?
  -
- View:
  -
  -
- Science activity:
  -

Day 2:

- Read: Genesis 1:24-31
- Read:
  - Skeleton quiz and answers
- Discuss:
  - Compare your Words to Remember flashcards with the diagrams
  - Study!!
- View:
  -
- Discuss:

Week 19

Topics:

- Humans
- Muscular System

Words to Remember:

- Genesis 1:24-31
- Muscle: a band or bundle of fibrous tissue in a human or animal body that has the ability to contract, producing movement in or maintaining the position of parts of the body ORIGIN late Middle English: from French, from Latin musculus, diminutive of mus ‘mouse’ (some muscles being thought to be mouselike in form).
- Words from Muscular System Quiz Answers
-
-

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Muscular System Quiz
- Muscular System Quiz Answers
- Rubber bands (2 same size)
- Popsicle sticks (2)
- Paper clip
- Pocket knife (or knife to whittle out a couple of notches)
- Earring post and back
- Popsicle stick arm instructions
- Rubber bands (multiple widths, same lengths)
- Ruler
-
-

Suggested Daily Schedule:

Day 1:

- Watch:
  - https://vimeo.com/59210631
- Read:
  -
  - Ezekiel 37
- Discuss:
  - The skeleton, as we have learned, is quite amazing.
  - Similarly, the muscular system is quite amazing.
  - What first comes to mind when you think of the word muscle? (discuss)
  - Chances are, you think of biceps or another common muscle. These types of muscle are skeletal muscles. There are actually three types of muscle:
    - skeletal: a muscle that is connected to the skeleton to form part of the mechanical system that moves the limbs and other parts of the body.
    - smooth: muscle tissue in which the contractile fibrils are not highly ordered, occurring in the gut and other internal organs and not under voluntary control.
    - cardiac (or myocardial): the muscular tissue of the heart ORIGIN late 19th cent.: modern Latin, from myo-'muscle' + Greek kardia 'heart.'
      - Have you ever heard of a myocardial infarction? It is another word for a heart attack.
  - Some muscles are voluntary (under the conscious control of the brain ORIGIN late Middle English: from Old French volontaire or Latin voluntarius, from voluntas 'will.') and some muscles are involuntary (not under the control of the will.)
  - Thinking about these definitions, which muscles might be voluntary and which might be involuntary? (skeletal are voluntary and smooth and cardiac are involuntary). The brain does control all muscles, but the key is the conscious control.
  - When you are learning something new, dribbling a basketball, playing the piano, riding a bike, etc., you have to think about everything you do. However, once you practice something over and over, you develop what is called muscle memory. Muscle memory allows you to do something without thinking about it- it is a habit. What are some actions you do out of habit?
  -
  - Ezekiel 37 tells us about bones, sinews, flesh, and skin. To what might sinews and flesh refer? (tendons, ligaments, muscle)
    - sinew: a piece of tough fibrous tissue uniting muscle to bone or bone to bone; a tendon or ligament. ORIGIN Old English sin(e)we'tendon,' of Germanic origin; related to Dutch zeen and German Sehne .
    - flesh: the soft substance consisting of muscle and fat that is found between the skin and bones of an animal or a human
  - Just like the rest of our body, our muscles are fearfully and wonderfully made!
  -
  -
- Read:
  -
  -
- Define:
  - Words to remember (make flashcards)
  -
- Note:

-
- Discuss:
  -
  -
- View:
  -
  -
- Science activity: Model Arm
  -
  -
  - Use the Popsicle stick arm instructions to create a simple model of the arm to demonstrate how the triceps and biceps muscles work.
  - Discuss:
    - How does this model successfully demonstrate how the biceps and triceps work?
    - What are some limitations to this model? (it does not take into account the brain's role in contracting and relaxing muscles, etc.)
    -

Day 2:

- Read: Genesis 1:24-31
- Read:
  - Look at the Muscular System quiz answers to locate the Words to Remember
- Discuss:
  - Compare your Words to Remember flashcards with the diagrams
  - Study!!
- View:
  - https://vimeo.com/91712943
- Discuss:
- Science activity: Muscle strength
  - Take one rubber band and stretch it.
  - Double up the rubber bands and stretch again.
  - If the rubber bands represent muscle fibers, how does the increase in muscle fibers relate to increase in the potential strength of a muscle?
  - Related activity:
    - Using a paperclip as a hook, hang a variety of objects from your combinations of rubber bands. Which rubber bands are stronger (can hold the most weight)?

Week 20

Topics:

- Humans
- Muscular System

Words to Remember:

- Genesis 1:24-31
- Muscle: a band or bundle of fibrous tissue in a human or animal body that has the ability to contract, producing movement in or maintaining the position of parts of the body ORIGIN late Middle English: from French, from Latin musculus, diminutive of mus ‘mouse’ (some muscles being thought to be mouselike in form).
- Words from Muscular System Quiz Answers
-
-

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck

- Muscular System Quiz
- Muscular System Quiz Answers
- Muscle- Our Index Finger
- Muscle- Self-Healing Concrete
- Why High-Speed Throwing is Uniquely Human
-
-
-

Suggested Daily Schedule:

Day 1:

- Watch:
- Read:
  -
  - Muscle- Our Index Finger
- Discuss:
  - Demonstrate and discuss the complexity of the index finger.
  - Walk through the article and articulate (physically) each motion mentioned in the article.
- Read:
  - Muscle- Self-Healing Concrete
- Discuss:
  - How does muscle heal?
  - You might hear folks who lift weights talk about tearing down their muscles in order to build them. To what might they be referring?
- Study:
  - Words to remember
- Note:
-

Day 2:

- Read: Genesis 1:24-31
- Watch:
  - https://vimeo.com/69263770
- Read:
  - Why High-Speed Throwing is Uniquely Human
- Discuss:
  -
  - Not everyone has the unique ability to throw like the baseball players you watched in the videos. Yet, we are still fearfully and wonderfully made.
  - Using your Words to Remember for the muscular system, discuss the muscles used in throwing a pitch (hint- it is more than just arm muscles!).
- View:
  -
- Discuss:

Week 21

Topics:

- Humans
- Cardiovascular System (Circulatory System)

Words to Remember:

- Genesis 1:24-31
- Circulatory System: the system that circulates blood and lymph through the body, consisting of the heart, blood vessels, blood, lymph, and the lymphatic vessels and glands.
- Blood vessel: a tubular structure carrying blood through the tissues and organs; a vein, artery, or capillary.
- White blood cell: leukocyte; a colorless cell that circulates in the blood and body fluids and is involved in counteracting foreign substances and disease; a white (blood) cell. There are several types, all ameboid cells with a nucleus, including lymphocytes, granulocytes, monocytes, and macrophages.
- Red blood cell: erythrocyte; contain the pigment hemoglobin, which imparts the red color to blood, and transport oxygen and carbon dioxide to and from the tissues.
- Vein: any of the tubes forming part of the blood circulation system of the body, carrying in most cases oxygen-depleted blood toward the heart. ORIGIN Middle English: from Old French veine, from Latin vena. The earliest senses were ‘blood vessel’ and ‘small natural underground channel of water.’
- Artery: any of the muscular-walled tubes forming part of the circulation system by which blood (mainly that which has been oxygenated) is conveyed from the heart to all parts of the body. ORIGIN late Middle English: from Latin arteria, from Greek artēria, probably from airein ‘raise.’
- Subclavian artery: an artery that serves the neck and arm on the left or right side of the body. ORIGIN mid 17th cent.: from modern Latin subclavius, from sub ‘under’ + clavis ‘key’ (see clavicle), + -ian.
- Subclavian vein: a vein that serves the neck and arm on the left or right side of the body. ORIGIN mid 17th cent.: from modern Latin subclavius, from sub ‘under’ + clavis ‘key’ (see clavicle), + -ian.
- Cephalic vein: of, in, or relating to the head. ORIGIN late Middle English: from Old French cephalique, from Latin cephalicus, from Greek kephalikos, from kephalē ‘head.’
- Axillary vein: a large blood vessel that conveys blood from the lateral aspect of the thorax, axilla (armpit) and upper limb toward the heart.
- Axillary artery: large blood vessel that conveys oxygenated blood to the lateral aspect of the thorax, the axilla (armpit) and the upper limb.
- Aorta: the main artery of the body, supplying oxygenated blood to the circulatory system. In humans it passes over the heart from the left ventricle and runs down in front of the backbone. ORIGIN mid 16th cent.: from Greek aortē (used in the plural by Hippocrates for the branches of the windpipe, and by Aristotle for the great artery), from aeirein ‘raise.’
- Superior vena cava: a large vein carrying deoxygenated blood into the heart from the head, arms, and upper body. ORIGIN late 16th cent.: from Latin, literally ‘hollow vein.’
- Inferior vena cava: a large vein carrying deoxygenated blood into the heart from the lower body ORIGIN late 16th cent.: from Latin, literally ‘hollow vein.’
- Descending aorta: part of the aorta beginning at the aortic arch that runs down through the chest and abdomen.
- Brachial artery: major blood vessel of the upper arm ORIGIN late Middle English: from Latin brachialis, from brac(c)hium ‘arm.’
- Basilic vein: large superficial vein of the upper limb that helps drain parts of the hand and forearm.
- Median cubital vein: superficial vein of the upper limb. It connects the basilic and cephalic vein and is often used for venipuncture (taking blood).
- Ulnar artery: the main blood vessel, with oxygenated blood, of the medial aspect of the forearm.
- Radial artery: the main artery of the lateral aspect of the forearm.
- Palmar digital veins: veins on each finger connected to the dorsal digital veins by oblique intercapitular veins.
- Digital artery: arteries of the fingers
- Basilar artery: one of the arteries that supplies the brain with oxygen-rich blood.
- Internal carotid artery: artery that arises from the common carotid artery and supplies the brain with blood
- External carotid artery: artery that arises from the common carotid artery and nourishes other portions of the head, such as face, scalp, skull, and meninges.
- External jugular vein: receives the greater part of the blood from the exterior of the cranium and the deep parts of the face
- Internal jugular vein: collects blood from the brain, the superficial parts of the face, and the neck.
- Vertebral arteries: major arteries of the neck.
- Common carotid arteries: arteries that supply the head and neck with oxygenated blood; they divide in the neck to form the external and internal carotid arteries.
- Pulmonary arteries: carries deoxygenated blood from the heart to the lungs.
- Pulmonary veins: large blood vessels that receive oxygenated blood from the lungs and drain into the left atrium of the heart. There are four pulmonary veins, two from each lung. The pulmonary veins are among the few veins that carry oxygenated blood.
- Heart: a hollow muscular organ that pumps the blood through the circulatory system by rhythmic contraction and dilation. ORIGIN Old English heorte, of Germanic origin; related to Dutch hart and German Herz, from an Indo-European root shared by Latin cor, cord- and Greek kēr, kardia .

- Celiac trunk: first major branch of the abdominal aorta (largest artery in the abdominal cavity, which supplies oxygenated blood to the liver, stomach, abdominal esophagus, spleen and the superior half of both the duodenum and the pancreas.).
- Hepatic vein: the blood vessels that drain de-oxygenated blood from the liver and blood cleaned by the liver (from the stomach, pancreas, small intestine and colon) into the inferior vena cava. ORIGIN late Middle English: via Latin from Greek hēpatikos, from hēpar, hēpat- 'liver.'
- Renal vein: veins that drain the kidney. They connect the kidney to the inferior vena cava. They carry the blood purified by the kidney. ORIGIN mid 17th cent.: from French rénal, from late Latin renalis, from Latin renes 'kidneys.'
- Renal artery: supply the kidneys with blood.
- Gonadal vein: the blood vessel that carries blood away from the gonad (testis, ovary) toward the heart. ORIGIN late 19th cent.: from modern Latin gonades, plural of gonas, from Greek gonē 'generation, seed.'
- Gonadal artery: supplies blood to the gonad (testis, ovary)
- Common iliac vein: drains blood from the pelvis and lower limbs.
- Common iliac artery: supplies blood to the pelvis and lower limbs.
- Internal iliac artery: the main artery of the pelvis.
- Internal iliac vein: ORIGIN early 16th cent.: from late Latin iliacus, from ilia 'entrails.'
- External iliac vein: large veins that connect the femoral veins to the common iliac veins.
- External iliac artery: provides the main blood supply to the legs.
- Internal iliac vein: joins with the external iliac vein to form the common iliac vein.
- Great saphenous vein: large, subcutaneous, superficial vein of the leg. It is the longest vein in the body running along the length of the leg. ORIGIN mid 19th cent.: from medieval Latin saphena 'vein' + -ous.
- Femoral artery: large artery in the thigh and the main arterial supply to the lower limb. ORIGIN late 15th cent.: from Latin femur, femor- 'thigh.'
- Femoral vein: a blood vessel that accompanies the femoral artery in the femoral sheath.
- Popliteal artery: The deepest (most anterior) structure in the fossa, the popliteal artery runs in close proximity to the joint capsule of the knee as it spans the intercondylar fossa. ORIGIN early 18th cent.: from modern Latin popliteus (from Latin poples, poplit- 'hollow of the knee') + -al.
- Popliteal vein: formed by the junction of the venae comitantes of the anterior and posterior tibial arteries at the lower border of the popliteus muscle on the medial side of the popliteal artery.
- Small saphenous vein: is a relatively large superficial vein of the posterior leg.
- Anterior tibial artery: carries blood to the anterior compartment of the leg and dorsal surface of the foot, from the popliteal artery.
- Posterior tibial artery: carries blood to the posterior compartment of the leg and plantar surface of the foot, from the popliteal artery via the tibial-fibular trunk.
- Peroneal artery: supplies blood to the lateral compartment of the leg (outer side of the calf of the leg). ORIGIN mid 19th cent.: from modern Latin peronaeus 'peroneal muscle' (based on Greek peronē 'pin, fibula') + -al.
- Anterior/posterior tibial vein: The anterior tibial veins drain the ankle joint, knee joint, tibiofibular joint, and the anterior portion of the lower leg.
- Dorsal venous arch: a superficial vein of the foot that connects the small saphenous vein and the great saphenous vein.
- Dorsal digital vein: On the dorsum of the foot the dorsal digital veins receive, in the clefts between the toes, the intercapitular veins from the plantar venous arch and join to form short common digital veins.
-
-
-

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

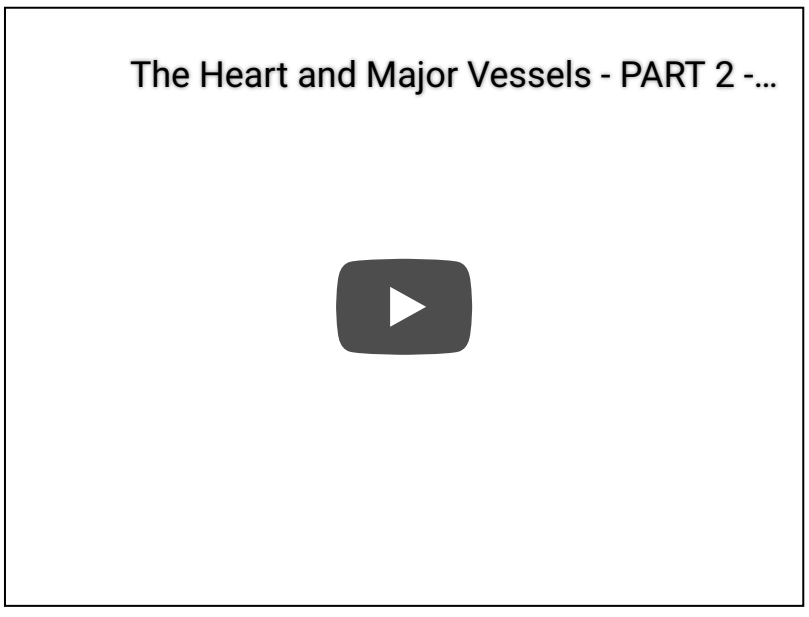
  - Bible
  - Black board, white board, or something upon which to make lists with students
  - Blank paper or Creation chart template (link below in Suggested Daily Schedule)
  - Coloring/drawing tools (Crayons, colored pencils, markers, etc.
  - (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
  - Made in His Image- Life-giving blood
  - Heart

Suggested Daily Schedule:

Day 1:

- Read:
  - Made in His Image- Life-giving blood

- Watch:
  - The heart and major vessels- Part I
  - http://youtu.be/lGYhPa2W2yQ
  - The heart and major vessels-Part II
  -



- Discuss:
  - After watching the videos, discuss the flow of blood in and out of the heart.
  - What is the function of arteries vs. veins?
  - How is blood moved throughout the body?
- Study:
  - Words to remember
- Note:
-

Day 2:

- Read:
  - Heart
- Define:
  - Define the words to remember and locate them on the cardiovascular quiz answers diagram
- Discuss:
  - What do you notice about the order of the cardiovascular system. In other words, we are fearfully and wonderfully made and were knit together in our mother's womb. What are some things you notice about the organization of the cardiovascular system? (Generally, there are a vein and artery working in concert, etc.)
- Explore more:
  - A baby's heart is formed around 20 days after conception and begins to beat at 21 or 22 days.
  - Watch this video of a baby developing before birth. Look closely for when the heart forms and starts beating.
  -

Week 22

Topics:

- Humans
- Cardiovascular System (Circulatory System)

Words to Remember:

- Genesis 1:24-31
- Circulatory System: the system that circulates blood and lymph through the body, consisting of the heart, blood vessels, blood, lymph, and the lymphatic vessels and glands.
- Blood vessel: a tubular structure carrying blood through the tissues and organs; a vein, artery, or capillary.
- White blood cell: leukocyte; a colorless cell that circulates in the blood and body fluids and is involved in counteracting foreign substances and disease; a white (blood) cell. There are several types, all ameboid cells with a nucleus, including lymphocytes, granulocytes, monocytes, and macrophages.
- Red blood cell: erythrocyte; contain the pigment hemoglobin, which imparts the red color to blood, and transport oxygen and carbon dioxide to and from the tissues.
- Vein: any of the tubes forming part of the blood circulation system of the body, carrying in most cases oxygen-depleted blood toward the heart. ORIGIN Middle English: from Old French veine, from Latin vena. The earliest senses were ‘blood vessel’ and ‘small natural underground channel of water.’
- Artery: any of the muscular-walled tubes forming part of the circulation system by which blood (mainly that which has been oxygenated) is conveyed from the heart to all parts of the body. ORIGIN late Middle English: from Latin arteria, from Greek artēria, probably from airein ‘raise.’
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- Subclavian vein: a vein that serves the neck and arm on the left or right side of the body. ORIGIN mid 17th cent.: from modern Latin subclavius, from sub ‘under’ + clavis ‘key’ (see clavicle), + -ian.
- Cephalic vein: of, in, or relating to the head. ORIGIN late Middle English: from Old French cephalique, from Latin cephalicus, from Greek kephalikos, from kephalē ‘head.’
- Axillary vein: a large blood vessel that conveys blood from the lateral aspect of the thorax, axilla (armpit) and upper limb toward the heart.
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- Descending aorta: part of the aorta beginning at the aortic arch that runs down through the chest and abdomen.
- Brachial artery: major blood vessel of the upper arm ORIGIN late Middle English: from Latin brachialis, from brac(c)hium ‘arm.’
- Basilic vein: large superficial vein of the upper limb that helps drain parts of the hand and forearm.
- Median cubital vein: superficial vein of the upper limb. It connects the basilic and cephalic vein and is often used for venipuncture (taking blood).
- Ulnar artery: the main blood vessel, with oxygenated blood, of the medial aspect of the forearm.
- Radial artery: the main artery of the lateral aspect of the forearm.
- Palmar digital veins: veins on each finger connected to the dorsal digital veins by oblique intercapitular veins.
- Digital artery: arteries of the fingers
- Basilar artery: one of the arteries that supplies the brain with oxygen-rich blood.
- Internal carotid artery: artery that arises from the common carotid artery and supplies the brain with blood
- External carotid artery: artery that arises from the common carotid artery and nourishes other portions of the head, such as face, scalp, skull, and meninges.
- External jugular vein: receives the greater part of the blood from the exterior of the cranium and the deep parts of the face
- Internal jugular vein: collects blood from the brain, the superficial parts of the face, and the neck.
- Vertebral arteries: major arteries of the neck.
- Common carotid arteries: arteries that supply the head and neck with oxygenated blood; they divide in the neck to form the external and internal carotid arteries.
- Pulmonary arteries: carries deoxygenated blood from the heart to the lungs.
- Pulmonary veins: large blood vessels that receive oxygenated blood from the lungs and drain into the left atrium of the heart. There are four pulmonary veins, two from each lung. The pulmonary veins are among the few veins that carry oxygenated blood.
- Heart: a hollow muscular organ that pumps the blood through the circulatory system by rhythmic contraction and dilation. ORIGIN Old English heorte, of Germanic origin; related to Dutch hart and German Herz, from an Indo-European root shared by Latin cor, cord- and Greek kēr, kardia .
- Celiac trunk: first major branch of the abdominal aorta (largest artery in the abdominal cavity, which supplies oxygenated blood to the liver, stomach, abdominal esophagus, spleen and the superior half of both the duodenum and the pancreas.).
- Hepatic vein: the blood vessels that drain de-oxygenated blood from the liver and blood cleaned by the liver (from the stomach, pancreas, small intestine and colon) into the inferior vena cava. ORIGIN late Middle English: via Latin from Greek hēpatikos, from hēpar, hēpat- ‘liver.’

- Renal vein: veins that drain the kidney. They connect the kidney to the inferior vena cava. They carry the blood purified by the kidney. ORIGIN mid 17th cent.: from French rénal, from late Latin renalis, from Latin renes ‘kidneys.’
- Renal artery: supply the kidneys with blood.
- Gonadal vein: the blood vessel that carries blood away from the gonad (testis, ovary) toward the heart. ORIGIN late 19th cent.: from modern Latin gonades, plural of gonas, from Greek gonē ‘generation, seed.’
- Gonadal artery: supplies blood to the gonad (testis, ovary)
- Common iliac vein: drains blood from the pelvis and lower limbs.
- Common iliac artery: supplies blood to the pelvis and lower limbs.
- Internal iliac artery: the main artery of the pelvis.
- Internal iliac vein: ORIGIN early 16th cent.: from late Latin iliacus, from ilia ‘entrails.’
- External iliac vein: large veins that connect the femoral veins to the common iliac veins.
- External iliac artery: provides the main blood supply to the legs.
- Internal iliac vein: joins with the external iliac vein to form the common iliac vein.
- Great saphenous vein: large, subcutaneous, superficial vein of the leg. It is the longest vein in the body running along the length of the leg. ORIGIN mid 19th cent.: from medieval Latin saphena ‘vein’ + -ous.
- Femoral artery: large artery in the thigh and the main arterial supply to the lower limb. ORIGIN late 15th cent.: from Latin femur, femor- ‘thigh.’
- Femoral vein: a blood vessel that accompanies the femoral artery in the femoral sheath.
- Popliteal artery: The deepest (most anterior) structure in the fossa, the popliteal artery runs in close proximity to the joint capsule of the knee as it spans the intercondylar fossa. ORIGIN early 18th cent.: from modern Latin popliteus (from Latin poples, poplit- ‘hollow of the knee’) + -al.
- Popliteal vein: formed by the junction of the venae comitantes of the anterior and posterior tibial arteries at the lower border of the popliteus muscle on the medial side of the popliteal artery.
- Small saphenous vein: is a relatively large superficial vein of the posterior leg.
- Anterior tibial artery: carries blood to the anterior compartment of the leg and dorsal surface of the foot, from the popliteal artery.
- Posterior tibial artery: carries blood to the posterior compartment of the leg and plantar surface of the foot, from the popliteal artery via the tibial-fibular trunk.
- Peroneal artery: supplies blood to the lateral compartment of the leg (outer side of the calf of the leg). ORIGIN mid 19th cent.: from modern Latin peronaeus ‘peroneal muscle’ (based on Greek peronē ‘pin, fibula’) + -al.
- Anterior/posterior tibial vein: The anterior tibial veins drain the ankle joint, knee joint, tibiofibular joint, and the anterior portion of the lower leg.
- Dorsal venous arch: a superficial vein of the foot that connects the small saphenous vein and the great saphenous vein.
- Dorsal digital vein: On the dorsum of the foot the dorsal digital veins receive, in the clefts between the toes, the intercapitular veins from the plantar venous arch and join to form short common digital veins.
- Blood: Blood consists of a mildly alkaline aqueous fluid (plasma) containing red cells (erythrocytes), white cells (leukocytes), and platelets; it is red when oxygenated and purple when deoxygenated. Red blood cells carry the protein hemoglobin, which gives blood its color and can combine with oxygen, thus enabling the blood to carry oxygen from the lungs to the tissues. White blood cells protect the body against the invasion of foreign agents (e.g., bacteria). Platelets and other factors present in plasma are concerned in the clotting of blood, preventing hemorrhage.
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Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

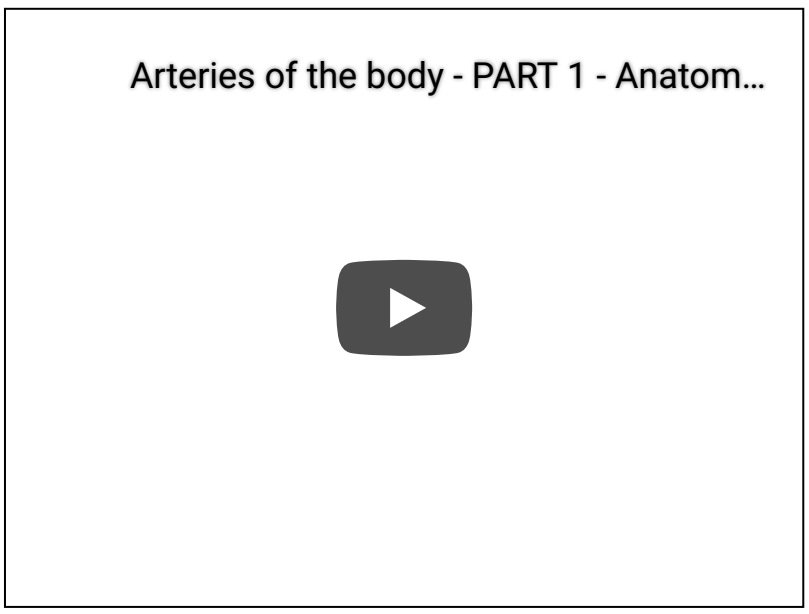
- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Made in His Image- Life-giving blood
- The Mysterious Spleen
-

Suggested Daily Schedule:

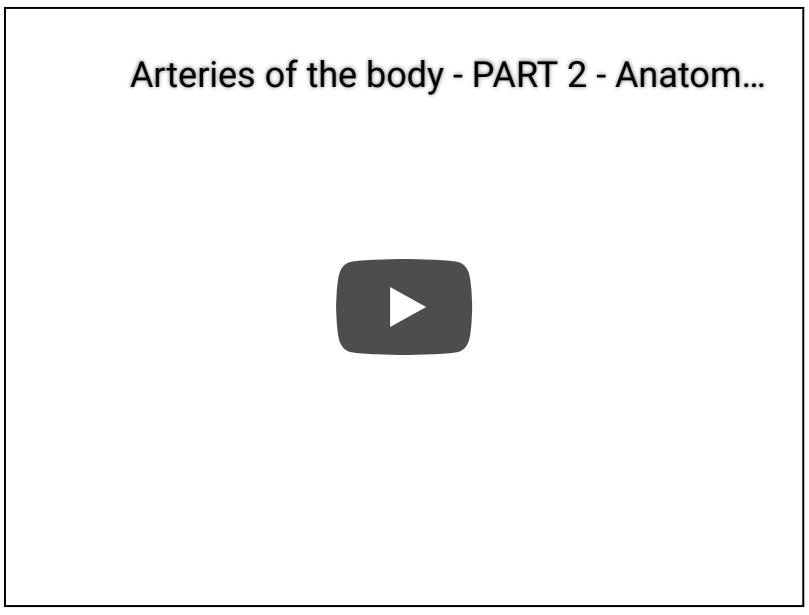
Day 1:

- Review:

    - Words to remember
- Read:
    - The Mysterious Spleen:
        - What is the function of the spleen?
        - What are the different parts of blood?
- Watch:
    - Use your Cardiovascular Quiz answers diagram as a map while you watch the following videos about Arteries (Always be sure to preview videos. These videos contain a 3D digital model of a human, mostly internal anatomy, but occasionally external anatomy to provide perspective on that which is inside.)
    - Arteries of the body- Part I



    - Arteries of the body-Part II



- Discuss:
    - Why is it helpful to know the skeletal system when studying the cardiovascular system?
    - How do the arteries relate to or work with the organs of the body?
    - How do the arteries relate to the muscular system?
    - Which arteries can be used to take a pulse?
    - What intricacies of arteries did you find fascinating?
- Bonus discussion:
    - Why is Latin helpful in understanding the function and placement of parts of the anatomy?
- Note:
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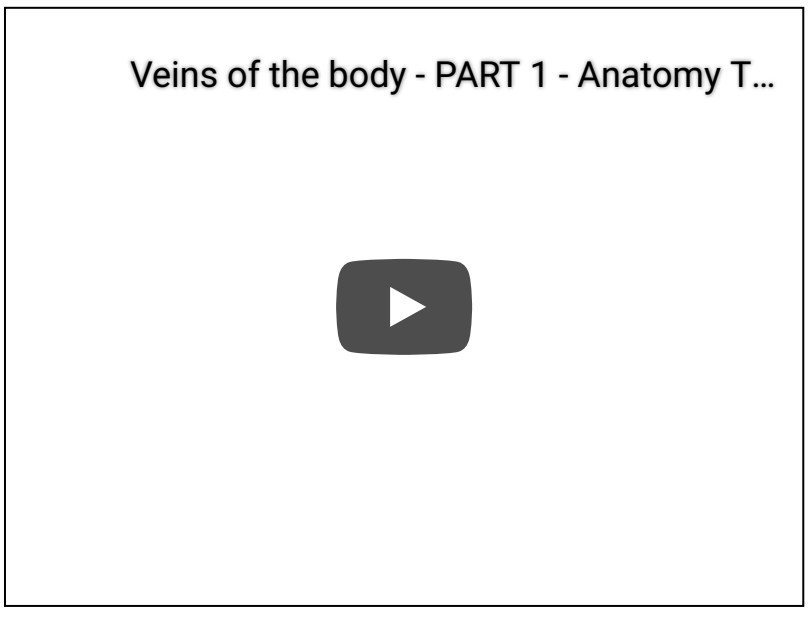
Day 2:

- Discuss:
    - What is blood? (Look at the Words to Remember)
    - Everyone has what is called a blood type. A blood type, or blood group, is any of the various types of human blood whose antigen characteristics determine compatibility in transfusion. An antigen is a toxin or other foreign substance that induces an immune response in the body, especially the production of antibodies.
    - The ABO System is a system of four basic types (A, AB, B, and O) into which human blood may be classified, based on the presence or absence of certain inherited antigens.
    - Do you know your blood type? If not, ask your parents.
    - Blood type is hereditary. Check out the chart below from redcrossblood.org.

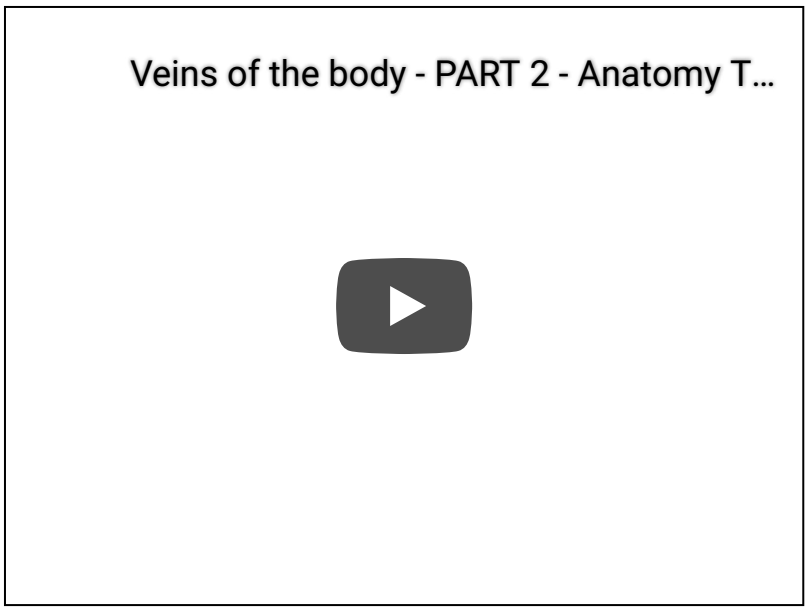
Parent 1	**AB**	**AB**	**AB**	**AB**	**B**	**A**	**A**	**O**	**O**	**O**
Parent 2	**AB**	**B**	**A**	**O**	**B**	**B**	**A**	**B**	**A**	**O**

Possible blood type of child	**O**					**X**	**X**	**X**	**X**	**X**	**X**
	A	**X**	**X**	**X**	**X**		**X**	**X**		**X**	
	B	**X**	**X**	**X**	**X**	**X**	**X**		**X**		
	AB	**X**	**X**	**X**			**X**				

- If you know your blood type, figure out what types your parents might be. (Example, your blood type is A. Your parents could be AB/AB, AB/B, AB/A, AB/O, A/B, A/A, or O/A)
- Watch: Use your Cardiovascular Quiz answers diagram as a map while you watch the following videos about Arteries (Always be sure to preview videos. These videos contain a 3D digital model of a human, mostly internal anatomy, but occasionally external anatomy to provide perspective on that which is inside.)
  - Veins of the body- Part I



  - Veins of the body-Part II



- Discuss:
  - Why is it helpful to know the skeletal system when studying the cardiovascular system?
  - How do the veins relate to or work with the organs of the body?
  - How do the veins relate to the muscular system?
  - What intricacies of veins did you find fascinating?
-

Week 23

Topics:

- Humans
- Digestive System

Words to Remember:

- Genesis 1:24-31
- Digest: break down (food) in the alimentary canal into substances that can be absorbed and used by the body. ORIGIN late Middle English: from Latin digest- ‘distributed, dissolved, digested,’ from the verb digerere, from di- ‘apart’ + gerere ‘carry’; the noun from Latin digesta ‘matters methodically arranged,’ from digestus ‘divided,’ from digerere .
- Pharynx: the membrane-lined cavity behind the nose and mouth, connecting them to the esophagus. ORIGIN late 17th cent.: modern Latin, from Greek pharunx, pharung- throat .
- Oral cavity: The beginning of the digestive system; mouth

- Uvula: a fleshy extension at the back of the soft palate that hangs above the throat. ORIGIN late Middle English: from late Latin, diminutive of Latin uva ‘grape.’
- Tongue: the fleshy muscular organ in the mouth, used for tasting, licking, swallowing, and articulating speech. ORIGIN Old English tunge, of Germanic origin; related to Dutch tong,German Zunge and Latin lingua .
- Salivary glands: ducts that produce saliva
- Parotid: either of a pair of large salivary glands situated just in front of each ear. ORIGIN late 17th cent.: via Latin from Greek parōtis, parōtid-, from para- ‘beside’ + ous, ōt- ‘ear.’
- Sublingual: denoting a pair of small salivary glands beneath the tongue.
- Submandibular: either of a pair of salivary glands situated below the lower jaw.
- Esophagus: a muscular tube lined with mucous membrane.
- Liver: The liver's main role is in the processing of the products of digestion into substances useful to the body. It also neutralizes harmful substances in the blood, secretes bile for the digestion of fats, synthesizes plasma proteins, and stores glycogen and some minerals and vitamins.
- Gallbladder: the small sac-shaped organ beneath the liver, in which bile is stored after secretion by the liver and before release into the intestine.
- Stomach: the internal organ in which the major part of the digestion of food occurs ORIGIN Middle English: from Old French estomac, stomaque, via Latin from Greek stomakhos ‘gullet,’ from stoma ‘mouth.’ The early sense of the verb was ‘be offended at, resent’ (early 16th cent).
- Pancreas: a large gland behind the stomach that secretes digestive enzymes into the duodenum. Embedded in the pancreas are the islets of Langerhans, which secrete into the blood the hormones insulin and glucagon. ORIGIN late 16th cent.: modern Latin, from Greek pankreas, from pan ‘all’ + kreas ‘flesh.’
- Pancreatic duct: a duct joining the pancreas to the common bile duct to supply pancreatic juices which aid in digestion provided by the exocrine pancreas.
- Common bile duct: is a tube-like anatomic structure in the gastrointestinal tract of organisms that have a gall bladder. ORIGIN Latin: ductus choledochus
- Small intestine: the part of the intestine that runs between the stomach and the large intestine; the duodenum, jejunum, and ileum collectively.
- Duodenum: the first part of the small intestine immediately beyond the stomach, leading to the jejunum. ORIGIN late Middle English: from medieval Latin, from duodeni ‘in twelves,’ its length being equivalent to the breadth of approximately twelve fingers.
- Jejunum: the part of the small intestine between the duodenum and ileum. ORIGIN mid 16th cent.: from medieval Latin, neuter of jejunus ‘fasting’ (because it is usually found to be empty after death).
- Ileum: the third portion of the small intestine, between the jejunum and the cecum. ORIGIN late 16th cent.: from Latin, singular of ilia ‘flanks, entrails.’
- Colon: the main part of the large intestine, which passes from the cecum to the rectum and absorbs water and electrolytes from food that has remained undigested. Its parts are called the ascending, transverse, descending, and sigmoid colon. ORIGIN late Middle English: via Latin from Greek kolon .
- Transverse colon: the middle part of the large intestine, passing across the abdomen from right to left below the stomach.
- Ascending colon: the first main part of the large intestine, which passes upward from the cecum on the right side of the abdomen.
- Descending colon: the part of the large intestine that passes downward on the left side of the abdomen toward the rectum.
- Cecum: a pouch connected to the junction of the small and large intestines. ORIGIN late Middle English: from Latin (intestinum) caecum ‘blind (gut),’ translation of Greek tuphlon enteron .
- Appendix: a tube-shaped sac attached to and opening into the lower end of the large intestine ORIGIN mid 16th cent. from Latin, from appendere ‘hang upon’
- Rectum: the final section of the large intestine, terminating at the anus. ORIGIN mid 16th cent.: from Latin rectum (intestinum)‘straight (intestine).’
- Anus: the opening at the end of the alimentary canal through which solid waste matter leaves the body.
  ORIGIN late Middle English: from Latin, originally ‘a ring.’
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Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

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- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Digestive system quiz
- Digestive system quiz answers
- From Solar Energy to Human Energy
- An Amazing Tract Record
- Where Intestines Designed for Bacteria?
-

Suggested Daily Schedule:

Day 1:

- Define:
  - Words to remember
- Read:
  - Digestive system quiz answers
  - Use your Digestive Quiz answers diagram as a map while you define the Words to Remember
- Read:
  - From Solar Energy to Human Energy
- Discuss:
  - After reading From Solar Energy to Human Energy, use your Digestive system quiz answers diagram to talk through the process of digestion from start to finish. Be sure to use the correct words!
  - What are some of the fascinating parts of digestion? Why?
-

Day 2:

- View:
  - https://vimeo.com/73820524
- Discuss:
  - Think about digestion and the digestive system. How do you see God's order in the way digestion works?
  - What happens when things get out of order?
- Read:
  - An Amazing Tract Record
  - Where Intestines Designed for Bacteria?
- Discuss:
  - We live in an anti-bacterial world. Some bacteria is bad for us. When is bacteria good for us?

Week 24

Topics:

- Humans
- Digestive System

Words to Remember:

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- Liver: The liver's main role is in the processing of the products of digestion into substances useful to the body. It also neutralizes harmful substances in the blood, secretes bile for the digestion of fats, synthesizes plasma proteins, and stores glycogen and some minerals and vitamins.
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- Anus: the opening at the end of the alimentary canal through which solid waste matter leaves the body.
  ORIGIN late Middle English: from Latin, originally ‘a ring.’
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Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Digestive system quiz
- Digestive system quiz answers
- Mankind--The Pinnacle of God's Creation
- Does the Gallbladder Have a Necessary Function?
-

Suggested Daily Schedule:

Day 1:

- Study:
  - Words to remember
- Read:
  - Digestive system quiz answers
  - Use your Digestive Quiz answers diagram as a map while you define the Words to Remember
- Read:
  - Mankind--The Pinnacle of God's Creation
- Discuss:
  - Use this article as a review of body systems you have already studied and keep it as a reference for body systems you will study in upcoming weeks.
-

Day 2:

- View:
  - Vestigial Organs (at this link)
- Discuss:
  - What is the gallbladder?
- Read:
  - Does the Gallbladder Have a Necessary Function?
- Discuss:
  - Think about the argument that there are unnecessary parts of our bodies. Using the articles and videos from this week, form an argument attacking the credibility of these ideas.
- Write:
  - Write a Refutation against the idea of vestigial organs.

Week 25

Topics:

- Humans
- Endocrine System

Words to Remember:

- Genesis 1:24-31
- Endocrine: of, relating to, or denoting glands that secrete hormones or other products directly into the blood ORIGIN early 20th cent.: from endo-‘within’ + Greek krinein ‘sift.’
- Alimentary: of or relating to nourishment or sustenance ORIGIN late 16th cent.: from Latin alimentarius, from alimentum ‘nourishment’
- Hormone: a regulatory substance produced in an organism and transported in tissue fluids such as blood or sap to stimulate specific cells or tissues into action. ORIGIN early 20th cent.: from Greek hormōn, present participle of horman ‘impel, set in motion.’
- Hypothalamus: a region of the forebrain below the thalamus that coordinates both the autonomic nervous system and the activity of the pituitary, controlling body temperature, thirst, hunger, and other homeostatic systems, and involved in sleep and emotional activity.
- Thyroid: a large ductless gland in the neck that secretes hormones regulating growth and development through the rate of metabolism. ORIGIN early 18th cent. (as an adjective): from Greek (khondros) thureoeidēs ‘shield-shaped (cartilage),’ from thureos ‘oblong shield.’
- Pineal Gland: a pea-sized conical mass of tissue behind the third ventricle of the brain, secreting a hormonelike substance in some mammals. ORIGIN late 17th cent.: from French pinéal, from Latin pinea ‘pine cone.’ The anatomical term refers to the shape of the gland.
- Pituitary Gland: the major endocrine gland. A pea-sized body attached to the base of the brain, the pituitary is important in controlling growth and development and the functioning of the other endocrine glands. ORIGIN early 17th cent.: from Latin pituitarius ‘secreting phlegm,’ from pituita ‘phlegm.’
- Liver: The liver's main role is in the processing of the products of digestion into substances useful to the body. It also neutralizes harmful substances in the blood, secretes bile for the digestion of fats, synthesizes plasma proteins, and stores glycogen and some minerals and vitamins. It was anciently supposed to be the seat of love and violent emotion.
- Duodenum: the first part of the small intestine immediately beyond the stomach, leading to the jejunum. ORIGIN late Middle English: from medieval Latin, from duodeni ‘in twelves,’ its length being equivalent to the breadth of approximately twelve fingers.
- Kidney: The kidneys' main function is to purify the blood by removing nitrogenous waste products and excreting them in the urine. They also control the fluid and ion levels in the body by excreting any excesses. The kidneys were anciently thought t control disposition and temperament.

- Stomach: the internal organ in which the major part of the digestion of food occurs ORIGIN Middle English: from Old French estomac, stomaque, via Latin from Greek stomakhos ‘gullet,’ from stoma ‘mouth.’ The early sense of the verb was ‘be offended at, resent’ (early 16th cent).
- Pancreas: a large gland behind the stomach that secretes digestive enzymes into the duodenum. Embedded in the pancreas are the islets of Langerhans, which secrete into the blood the hormones insulin and glucagon.
- Insulin: a hormone produced in the pancreas by the islets of Langerhans that regulates the amount of glucose in the blood. The lack of insulin causes a form of diabetes.
- Adrenal glands: a pair of ductless glands situated above the kidneys. Each consists of a core region (adrenal medulla) secreting epinephrine and norepinephrine, and an outer region (adrenal cortex) secreting corticosteroids.
- Adrenaline: a hormone secreted by the adrenal glands, especially in conditions of stress, increasing rates of blood circulation, breathing, and carbohydrate metabolism and preparing muscles for exertion

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Endocrine System Quiz
- Endocrine System Alimentary
- Endocrine System Central Nervous
- Endocrine System Miscellaneous
- Endocrine System Reproductive
- Your Pituitary- A Miniscule Master
- Type 1 Diabetes
- Babytooth Technologies
-

Suggested Daily Schedule:

Day 1:

- Discuss:
  - The Endocrine System, like all of the other systems we have discussed thus far, is quite complex and provides yet more evidence that we are fearfully and wonderfully made.
  - The Endocrine System is spread throughout other systems and specifically deals with the hormones produced and secreted by various glands.
  - Define:
    - Endocrine and Hormone
  - We begin our study of the Endocrine System in the brain.
- Read:
  - Your Pituitary- A Miniscule Master
- Discuss:
  - What are some examples of the many things the pituitary monitors and/or regulates?
- Read:
  - Endocrine System Central Nervous
  - Study the Words to Remember related to the Central Nervous portion of the Endocrine System
  - Make note of the Origins of the words where provided. Etymology is fascinating!
  - Note the various hormones secreted, produced, or stored by each gland

Day 2:

- Discuss:
  - Perhaps the most widely-known hormone is insulin. Perhaps you or someone you know has diabetes. What exactly is diabetes? Read Type 1 Diabetes to find out more.
- Read:
  - Type 1 Diabetes
- Discuss:
  - What are the differences between Type 1 and Type 2 Diabetes?
- Read:
  - Endocrine System Alimentary
  - Study the Words to Remember related to the Alimentary portion of the Endocrine System

- Make note of the Origins of the words where provided. Etymology is fascinating!
- Note the various hormones secreted, produced, or stored by each gland or organ

- Explore:
  - In our fallen world, scientists are constantly looking for ways to reduce or reverse the effects of the disease and dysfunction that permeates our world.
  - Stem cell research is a controversial and fascinating area of research.
  - Read Babytooth Technologies, an interview with a researcher doing some fascinating work with stem cells.

Week 26

Topics:

- Humans
- Endocrine System

Words to Remember:

- Genesis 1:24-31
- Endocrine: of, relating to, or denoting glands that secrete hormones or other products directly into the blood ORIGIN early 20th cent.: from endo-‘within’ + Greek krinein ‘sift.’
- Hormone: a regulatory substance produced in an organism and transported in tissue fluids such as blood or sap to stimulate specific cells or tissues into action. ORIGIN early 20th cent.: from Greek hormōn, present participle of horman ‘impel, set in motion.’
- Adipose tissue: (especially of body tissue) used for the storage of fat. ORIGIN mid 18th cent.: from modern Latin adiposus, from adeps, adip- ‘fat.’
- Heart: a hollow muscular organ that pumps the blood through the circulatory system by rhythmic contraction and dilation. In vertebrates there may be up to four chambers (as in humans), with two atria and two ventricles.
- Bone Marrow: a soft fatty substance in the cavities of bones, in which blood cells are produced

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Endocrine System Quiz
- Endocrine System Alimentary
- Endocrine System Central Nervous
- Endocrine System Miscellaneous
- Endocrine System Reproductive
- Designed Control System
- The Highly Efficient Genome
-

Suggested Daily Schedule:

Day 1:

- Discuss:
  - We began our study of the Endocrine System with two of the more common areas of the body included in the Endocrine System.
- Read:
  - Designed Control System
- Discuss:
  - How do the Central Nervous System and Endocrine System work together?
- Read:
  - Endocrine System Miscellaneous
  - Study the Words to Remember related to the Endocrine System
  - Make note of the Origins of the words where provided. Etymology is fascinating!
  - Note the various hormones secreted, produced, or stored by each body part.

Day 2:

- Read:
  - The Highly Efficient Genome
- Discuss:
  - While this article is somewhat technical, it gives us a brief look at how the Endocrine System works with other systems.
  - How does the Endocrine System work with other systems? In other words, how do hormones impact various functions of the body?

Week 27

Topics:

- Humans
- Nervous System

Words to Remember:

- Genesis 1:24-31
- Nervous System: the network of nerve cells and fibers that transmits nerve impulses between parts of the body
- Central Nervous System: the complex of nerve tissues that controls the activities of the body. In vertebrates it comprises the brain and spinal cord.
- Autonomic Nervous System: the part of the nervous system responsible for control of the bodily functions not consciously directed, such as breathing, the heartbeat, and digestive processes.
- Peripheral Nervous System: the nervous system outside the brain and spinal cord.
- Sympathetic Nervous System: produces fight-or-flight response in a person
- Parasympathetic Nervous System: responsible for unconscious functions of the body when at rest
- Frontal Lobe: each of the paired lobes of the brain lying immediately behind the forehead, including areas concerned with behavior, learning, personality, and voluntary movement.
- Parietal Lobe: either of the paired lobes of the brain at the top of the head, including areas concerned with the reception and correlation of sensory information.
- Occipital Lobe: the rearmost lobe in each cerebral hemisphere of the brain that is the visual processing center of the brain
- Cerebellum: the part of the brain at the back of the skull. Its function is to coordinate and regulate muscular activity.
- Brain Stem: the central trunk of the brain, consisting of the medulla oblongata, pons, and midbrain, and continuing downward to form the spinal cord.
- Temporal Lobe: each of the paired lobes of the brain lying beneath the temples, including areas concerned with the understanding of speech.
- Brain: an organ of soft nervous tissue contained in the skull, functioning as the coordinating center of sensation and intellectual and nervous activity.
- Spinal Cord: the cylindrical bundle of nerve fibers and associated tissue that is enclosed in the spine and connects nearly all parts of the body to the brain, with which it forms the central nervous system.
-

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
-

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Nervous System diagram
- Nervous System Quiz
- Brain diagram
- Brain quiz
- Balancing Body Temperature
- Autonomic Nervous System diagram
- Autonomic Nervous System quiz
-

Suggested Daily Schedule:

Day 1:

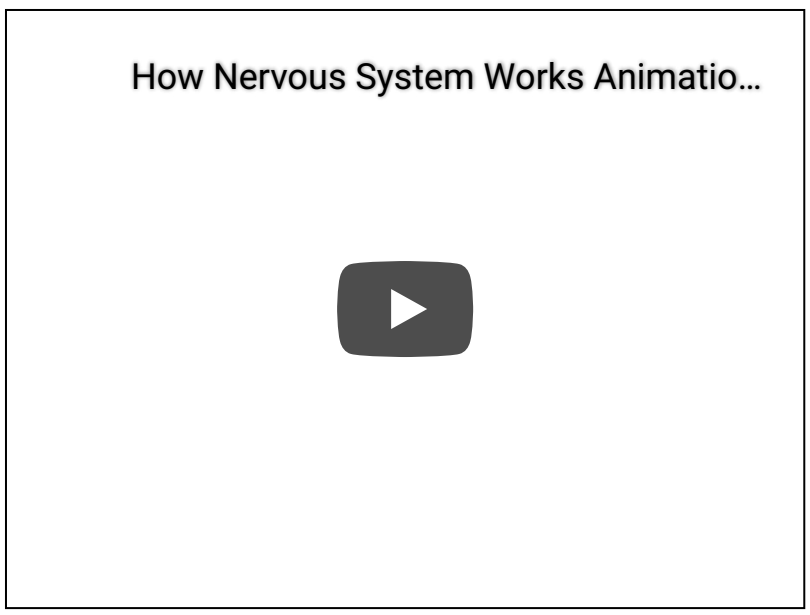
- Discuss:

- The Nervous System entails all the network of nerve cells and fibers that transmits nerve impulses between parts of the body. From there, we can study the nervous system in three categories: Central, Autonomic, and Peripheral.
- To study the Central Nervous System is to study the brain and spinal cord.
- On the Nervous System diagram, locate the brain and spinal cord. We will study the brain more in depth.
- As you can imagine, if the Central Nervous System is the brain and spinal cord, the Peripheral Nervous System is everything outside of the brain and spinal cord.
- On the Nervous System diagram, locate the structures of the Peripheral Nervous System.
- The Autonomic Nervous System consists of the part of the nervous system responsible for control of the bodily functions not consciously directed, such as breathing, the heartbeat, and digestive processes.
- The Autonomic Nervous system is separated into two categories: Sympathetic and Parasympathetic.
- In the Autonomic Nervous System diagram, the sympathetic is red and parasympathetic is blue. Locate the structures and connected structures for each system.

- Discuss:
  - How do the Central Nervous System and Endocrine System work together?
- Explore:
  - When we encounter something unfamiliar or uncomfortable, we sometimes say, "I'm nervous." After looking up the definition of nervous, discuss the connections you can make between the comment and the system.

Day 2:

- Discuss:
  - The brain is part of the Central Nervous System. While made up of many different areas, we will be studying only a few of those areas.
- Read:
  - Brain diagram
  - Locate the Words to Remember on the Brain diagram.
  - Discuss the function of each area of the brain.
- View:
  - How the Nervous System Works



- Discuss:
  - What relationship does the Nervous System have to other systems thus far studied?

Week 28

Topics:

- Humans
- Nervous System

Words to Remember:

- Genesis 1:24-31
- Nervous System: the network of nerve cells and fibers that transmits nerve impulses between parts of the body
- Central Nervous System: the complex of nerve tissues that controls the activities of the body. In vertebrates it comprises the brain and spinal cord.
- Autonomic Nervous System: the part of the nervous system responsible for control of the bodily functions not consciously directed, such as breathing, the heartbeat, and digestive processes.
- Peripheral Nervous System: the nervous system outside the brain and spinal cord.
- Sympathetic Nervous System: produces fight-or-flight response in a person
- Parasympathetic Nervous System: responsible for unconscious functions of the body when at rest
- Frontal Lobe: each of the paired lobes of the brain lying immediately behind the forehead, including areas concerned with behavior, learning, personality, and voluntary movement.

- Parietal Lobe: either of the paired lobes of the brain at the top of the head, including areas concerned with the reception and correlation of sensory information.
- Occipital Lobe: the rearmost lobe in each cerebral hemisphere of the brain that is the visual processing center of the brain
- Cerebellum: the part of the brain at the back of the skull. Its function is to coordinate and regulate muscular activity.
- Brain Stem: the central trunk of the brain, consisting of the medulla oblongata, pons, and midbrain, and continuing downward to form the spinal cord.
- Temporal Lobe: each of the paired lobes of the brain lying beneath the temples, including areas concerned with the understanding of speech.
- Brain: an organ of soft nervous tissue contained in the skull, functioning as the coordinating center of sensation and intellectual and nervous activity.
- Spinal Cord: the cylindrical bundle of nerve fibers and associated tissue that is enclosed in the spine and connects nearly all parts of the body to the brain, with which it forms the central nervous system.
- Brachial Plexus: responsible for cutaneous and muscular innervation of the entire upper limb, with two exceptions: the trapezius muscle innervated by the spinal accessory nerve and an area of skin near the axilla innervated by the intercostobrachial nerve.
- Musculocutaneous nerve: innervates the coracobrachialis, biceps brachii, and the greater part of the brachialis.
- Radial nerve: innervates the medial and lateral heads of the triceps brachii muscle of the arm, as well as all 12 muscles in the posterior osteofascial compartment of the forearm and the associated joints and overlying skin.
- Median nerve: The median nerve is the only nerve that passes through the carpal tunnel. Carpal tunnel syndrome is the disability that results from the median nerve being pressed in the carpal tunnel.
- Iliohypogastric nerve: supplies sensation to skin over the lateral gluteal region and motor to the internal and transverse abdominal muscles.
- Genitofemoral nerve: supplies sensation to the upper anterior thigh, as well as the skin of the anterior scrotum in males and mons pubis in females.
- Obturator nerve: responsible for the sensory innervation of the skin of the medial aspect of the thigh.
- Ulnar nerve: The ulnar nerve also provides sensory innervation to the fifth digit and the medial half of the fourth digit, and the corresponding part of the palm. The ulnar nerve is what is struck when someone says he hit his "funny bone."
- Common peroneal nerve: provides sensation and motor function to parts of the lower leg.
- Deep peroneal nerve: supplies muscular branches to the tibialis anterior, extensor digitorum longus, peroneus tertius, and extensor hallucis longus (propius), and an articular branch to the ankle-joint.
- Superficial peroneal nerve: innervates the peroneus longus and peroneus brevis muscles and the skin over the antero-lateral aspect of the leg along with the greater part of the dorsum of the foot (with the exception of the first web space, which is innervated by the deep peroneal nerve).
- Intercostal nerves: distributed chiefly to the thoracic pleura and abdominal peritoneum and differ from the anterior rami of the other spinal nerves in that each pursues an independent course without plexus formation.
- Subcostal nerve: It communicates with the iliohypogastric nerve of the lumbar plexus, and gives a branch to the Pyramidalis. It also gives off a lateral cutaneous branch that supplies sensory innervation to the skin over the hip.
- Lumbar plexus: innervates the skin and muscles of the lower limb
- Sacral plexus: provides motor and sensory nerves for the posterior thigh, most of the lower leg and foot, and part of the pelvis.
- Femoral nerve: innervates the skin on the upper thigh and inner leg, and the muscles that extend the knee.
- Pudendal nerve: carries sensation from the external genitalia of both sexes and the skin around the anus and perineum, as well the motor supply to various pelvic muscles, including the male or female external urethral sphincter and the external anal sphincter.
- Sciatic nerve: innervates nearly the whole of the skin of the leg, the muscles of the back of the thigh, and those of the leg and foot. It is the longest and widest single nerve in the human body.
- Muscular branches of femoral nerve: Within the abdomen the femoral nerve gives off small branches to the iliacus muscle, and a branch which is distributed on the upper part of the femoral artery; the latter branch may arise in the thigh.
- Saphenous nerve: innervates the skin on the inside of the leg
- Tibial nerve: In addition to the gastrocnemius and plantaris muscles, the tibial nerve supplies the soleus, flexor digitorum longus, flexor hallucis longus and tibialis posterior muscles, as well as the skin of the heel and sole.

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- Anatomy of the Human Body by Henry Gray (1918)

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Nervous System diagram

- Nervous System Quiz
- Brain diagram
- Brain quiz
- Balancing Body Temperature
- Autonomic Nervous System diagram
- Autonomic Nervous System quiz
- Balancing Body Temperature
-

Suggested Daily Schedule:

Day 1:

- Discuss:
  - Thus far, we have spent the majority of our Nervous system study on the Central Nervous System.
  - The Nervous System diagram shows many more structures other than those in the Central Nervous System. These are called the Peripheral Nervous System. If we speak of something that is peripheral, we are speaking of something of, relating to, or situated on the edge or periphery of something. More specifically, in anatomy, peripheral refers to something near the surface of the body.
- Define:
  - Words to Remember from Nervous System diagram. These are but a sample of the nerves in our bodies.
    - A note on the definitions: many use the word innervates. To innervate is to supply with nerves. In other words, a fiber or bundle of fibers that transmits impulses of sensation to the brain or spinal cord, and impulses from these to the muscles and organs.
    - As you study these definitions, it would do you well to reference your skeletal and muscular systems.
  - Students can learn more about these and other nerves in Anatomy of the Human Body by Henry Gray available in PDF or online. Note: there are ads around the online version. The PDF is a facsimile of the original.

Day 2:

- Read:
  - Balancing Body Temperature
  -
- Discuss:
  - Our bodies are incredibly complex. They are certainly fearfully and wonderfully made.
  - What details did God not overlook when He was creating man, especially as it relates to temperature regulation?
- Explore:
  - There are many, many structures and functions we could study in great depth.
  - Another fascinating thing to study relating to the nervous system is vision.
  - You can learn about how our eyes work in relation to the nervous system.
  -

Week 29

Topics:

- Humans
- Respiratory System

Words to Remember:

- Genesis 1:24-31
- Respiratory System: specific organs and structures used for the process of respiration (the intake and exchange of oxygen and carbon dioxide), including the trachea, bronchi, bronchioles, lungs, and diaphragm.

- Paranasal sinuses: Air-filled sacs near the nose that have various functions, including decreasing the relative weight of the front of the skull, increasing resonance of the voice, providing a buffer against facial trauma, insulating sensitive structures like dental roots and eyes from rapid temperature fluctuations in the nasal cavity, and humidifying and heating of inhaled air because of slow air turnover in this region.
- Nose: the part projecting above the mouth on the face of a person or animal, containing the nostrils and used for breathing and smelling.
- Pharynx: the membrane-lined cavity behind the nose and mouth, connecting them to the esophagus.
- Larynx: the hollow muscular organ forming an air passage to the lungs and holding the vocal cords in humans; the voice box.
- Vocal folds: folds of membranous tissue that project inward from the sides of the larynx to form a slit across the glottis in the throat, and whose edges vibrate in the airstream to produce the voice.
- Trachea: a large membranous tube reinforced by rings of cartilage, extending from the larynx to the bronchial tubes and conveying air to and from the lungs; the windpipe.
- Main Bronchi: major air passages of the lungs that diverge from the windpipe. ORIGIN late 17th cent.: from late Latin, from Greek bronkhos ‘windpipe.’
- Lingular division bronchi: the lower division of the major air passages of the lungs that diverge from the windpipe.
- Lung: each of the pair of organs situated within the rib cage, consisting of elastic sacs with branching passages into which air is drawn, so that oxygen can pass into the blood and carbon dioxide be removed.
- Diaphragm: a dome-shaped, muscular partition separating the thorax from the abdomen in mammals. It plays a major role in breathing, as its contraction increases the volume of the thorax and so inflates the lungs. ORIGIN late Middle English: from late Latin diaphragma, from Greek, from dia ‘through, apart’ + phragma ‘a fence.’
- Lobar bronchus: main bronchus subdivided into three secondary bronchi, which deliver oxygen to the three lobes of each lung—the superior, middle and inferior lobe.
- Tracheal and bronchi rings: the rings of cartilage that reinforce the trachea and bronchi
- Esophagus: a muscular tube lined with mucous membrane that connects the throat to the stomach
- Oral cavity: the mouth

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- Anatomy of the Human Body by Henry Gray (1918)

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Respiratory System diagram
- Respiratory System quiz
- The Breath of Life
-

Suggested Daily Schedule:

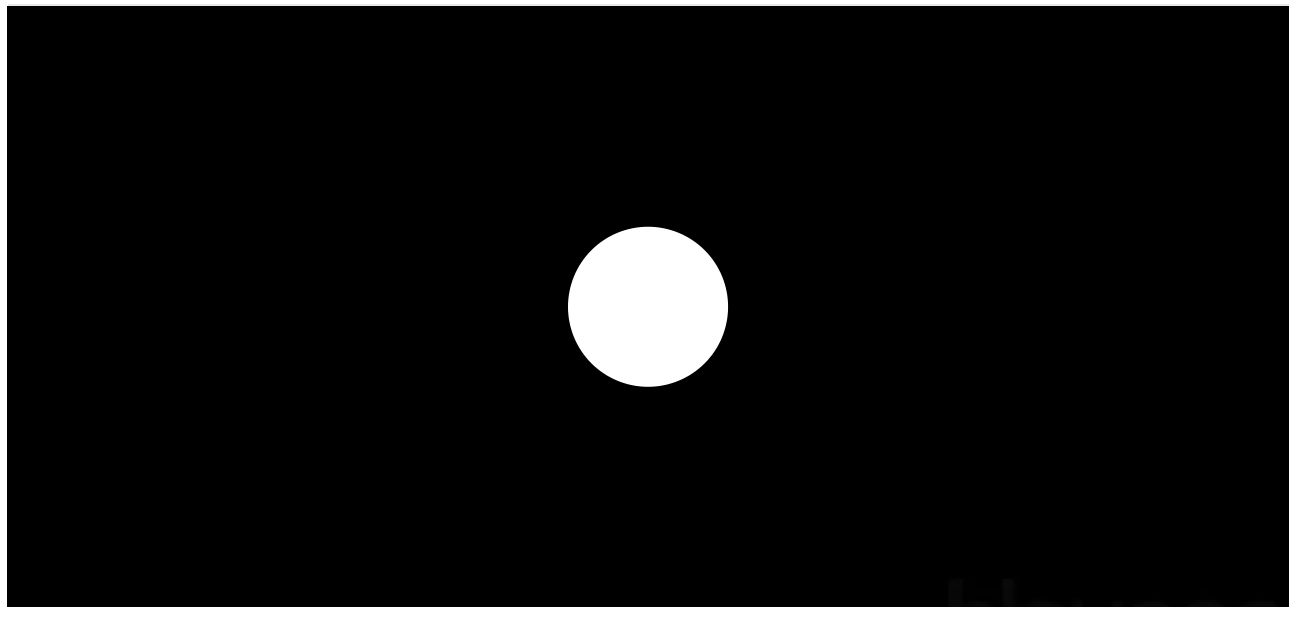
Day 1:

- Note: teachers utilizing the quiz may quiz on all of the structures or just the main structures. If quizzing on only the main structures, the applicable numbers on the quiz are 1, 5, 9, 10, 14, 15, 16, 18, 24, 25, 38, 20, 31, 19, 40, 39
- Discuss:
  - In Scripture, breath is always associated with life. It is a fascinating thing to study!
  - The Respiratory System is that by which we breathe and thus have life. If there is no breath, there is no life.
  -
- Define:
  - Words to Remember from Respiratory System diagram. These are but a sample of the structures of the respiratory system.

Day 2:

- Read:
  - The Breath of Life
  -
- Discuss:
  - What details did God not overlook when He was creating man, especially as it relates to breathing?
- Explore:
  - View:

Respiratory System-How Lungs Function.mp4



Week 30

Topics:

- Humans
- Respiratory System

Words to Remember:

- Genesis 1:24-31
- Respiratory System: specific organs and structures used for the process of respiration (the intake and exchange of oxygen and carbon dioxide), including the trachea, bronchi, bronchioles, lungs, and diaphragm.
- Paranasal sinuses: Air-filled sacs near the nose that have various functions, including decreasing the relative weight of the front of the skull, increasing resonance of the voice, providing a buffer against facial trauma, insulating sensitive structures like dental roots and eyes from rapid temperature fluctuations in the nasal cavity, and humidifying and heating of inhaled air because of slow air turnover in this region.
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Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- Anatomy of the Human Body by Henry Gray (1918)

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck

- Respiratory System diagram
- Respiratory System quiz
- Baby's First Breath
- We Believe in the Resurrection of the Body

Suggested Daily Schedule:

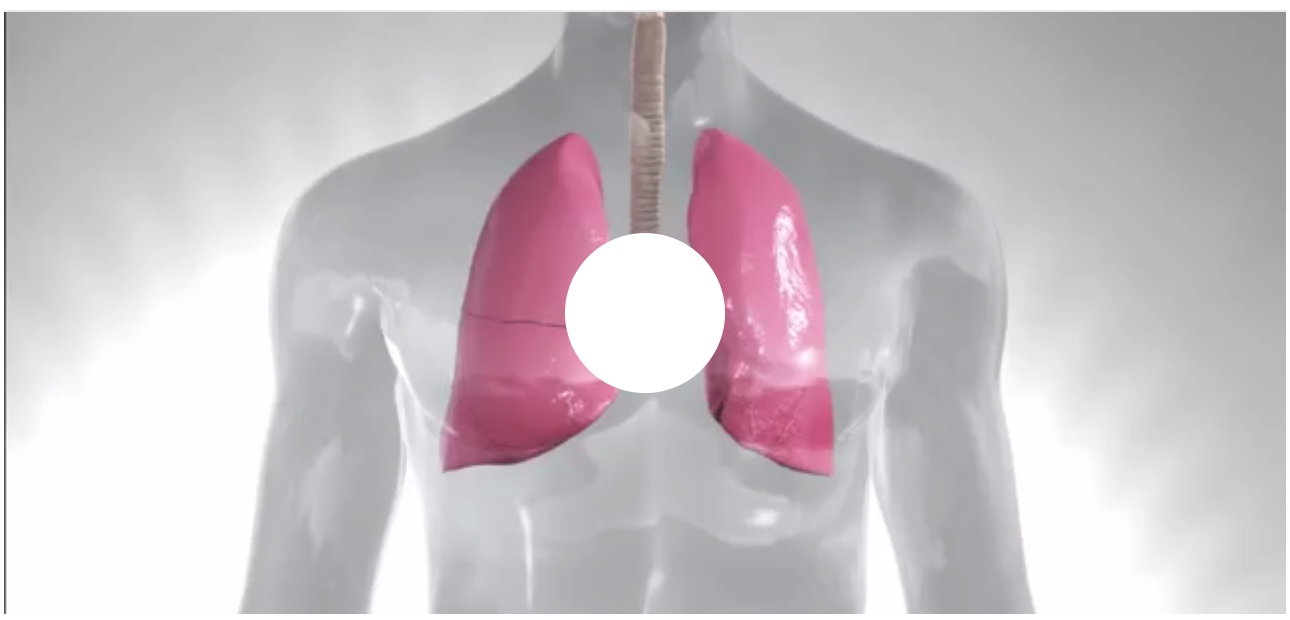
Day 1:

- Discuss:
  - You have thus far seen how all of the systems of the human body are intricately woven together.
  - Read Psalm 139. Look at the study notes for this psalm, especially vs. 13-16. Read also Life's God-Given Value on p. 983.
  - The psalmist refers to the creation of life as being knit together in the womb.
  - How can you see this thus far in the systems so far studied?
- Read:
  - Baby's First Breath.
  - Discuss this article as it relates to Psalm 139

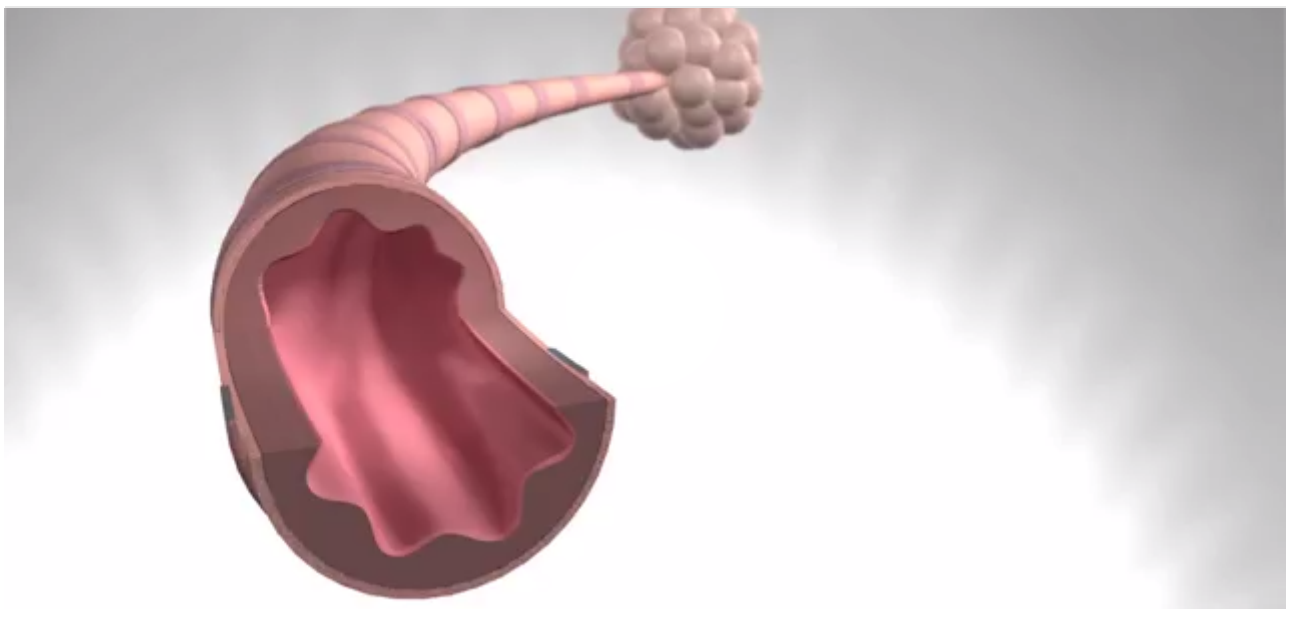
Day 2:

- Discuss:
  - Because we live in a fallen world, our bodies do not function perfectly. Romans tells us that the wages of sin is death. Our bodies reflect that we are on a journey toward death. But, thanks be to God that on the Last Day our bodies will be made perfect. We confess this in the Creed when we say that we believe in "the resurrection of the body."
  - Confess The Creed together and then discuss in particular the Third Article.
  - Why does the resurrection of the body matter so much that we confess it daily in the Creed?
- Explore:
  - One of the many ways we see evidence of our journey toward death is in asthma. You may have asthma or you may know someone with asthma.
  - Watch these silent videos to learn more about asthma:

What is Asthma 1.mp4



What is Asthma 2.mp4



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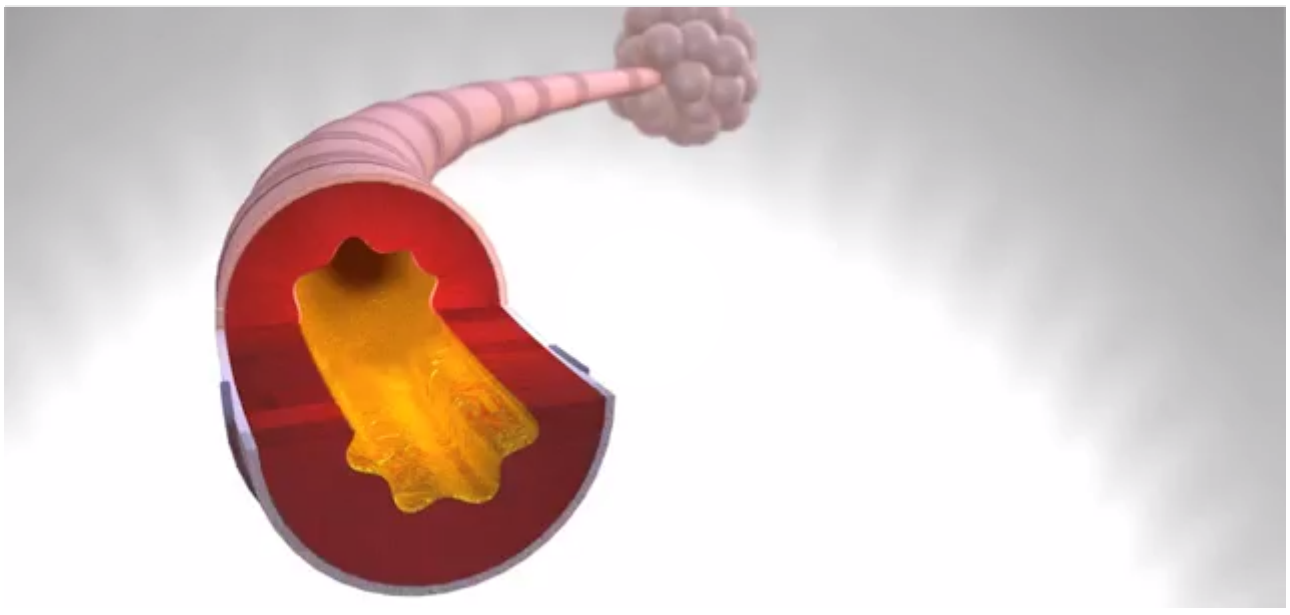
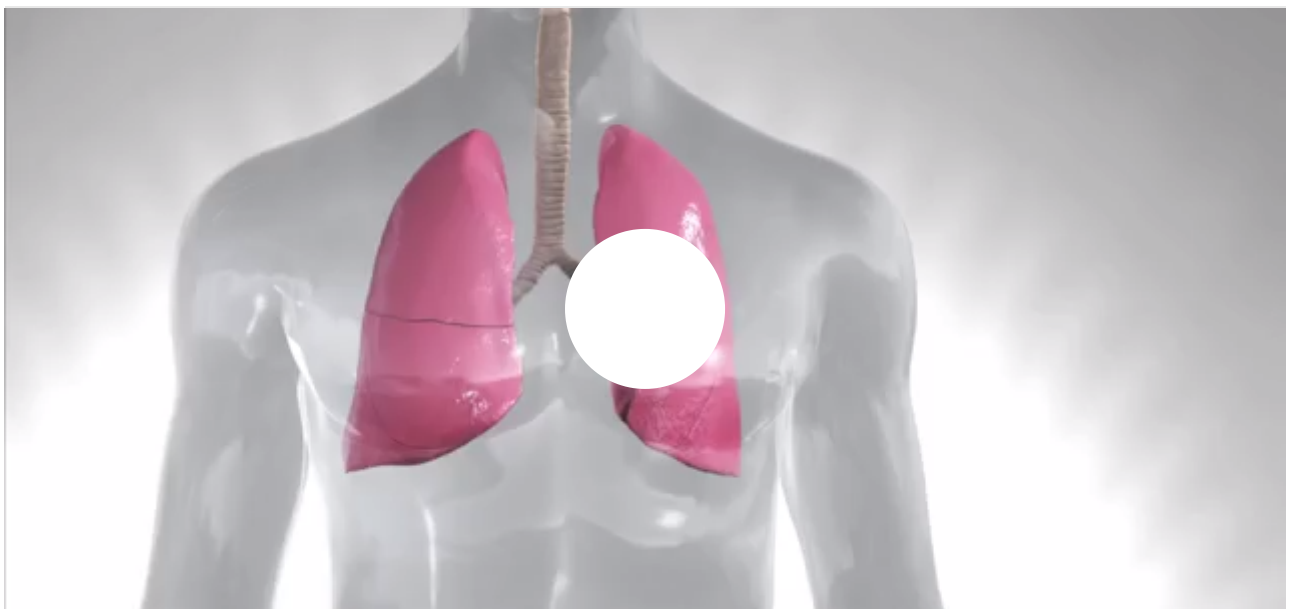


What is Asthma 4.mp4



- Read:
  - We Believe in the Resurrection of the Body

Week 31

Topics:

- Humans
- Immune System

Words to Remember:

- Genesis 1:24-31
- Immune System: the organs and processes of the body that provide resistance to infection and toxins. Organs include the thymus, bone marrow, and lymph nodes.

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- Anatomy of the Human Body by Henry Gray (1918)

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- The Body's Security Force
- Combating a Constant Threat
- Our Impressive Immune System

Suggested Daily Schedule:

Day 1:

- Discuss:

- We acknowledge that we live in a fallen world and as such, we will one day die.
- Even so, in God's mercy, He has given us an immune system.

- Read:
  - In these three articles is a summary of the immune system at different levels of complexity and technicality.
    - The Body's Security Force
    - Combating a Constant Threat
    - Our Impressive Immune System

Day 2:

- Discuss:
  - Based on the three articles, discuss the following:
    - God's provision
    - First line of defense
    - Second line of defense
    - How the Immune System relates to the systems thus far studied.

Week 32

Topics:

- Humans
- Urinary System

Words to Remember:

- Genesis 1:24-31
- Urinary System: organs, structures, and ducts by which urine is produced and discharged, in mammals comprising the kidneys, ureters, bladder, and urethra.
- Kidney: each of a pair of organs in the abdominal cavity whose main function is to purify the blood by removing nitrogenous waste products and excreting them in the urine. They also control the fluid and ion levels in the body by excreting any excesses. The kidneys were anciently thought to control disposition and temperament.
- Ureter: the duct by which urine passes from the kidney to the bladder
- Bladder: a membranous sac in which urine is collected for excretion
- Urethra: the duct by which urine is conveyed out of the body from the bladder
- Prostate: a gland surrounding the neck of the bladder in males

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- Anatomy of the Human Body by Henry Gray (1918)

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Urinary System-male-diagram
- Urinary System-female-diagram
- Urinary System-male-quiz
- Urinary System-female-quiz

Suggested Daily Schedule:

Day 1:

- Discuss:
  - This side of heaven, the food we eat is not wholly used. Likewise, our bodies are constantly producing waste from other functions aside from digestion.
  - Thus, we need a way to remove liquid waste from our bodies.
  - Just as God has provided for us in other ways, so also does He provide a way to remove this liquid unusable by our bodies.
- Define:
  - Words to Remember

Day 2:

- Discuss:
  - Look at the Immune System diagrams. Discuss them in relation to the other systems thus far studied.

- How is the relationship of the Immune system to other systems different from the relationships between the other systems to one another?

Week 33

Topics:

- Humans
- Reproductive System

Words to Remember:

- Genesis 1:24-31
- Bladder: a membranous sac in which urine is collected for excretion
- Urethra: the duct by which urine and semen are conveyed out of the body from the bladder
- Prostate: a gland surrounding the neck of the bladder in males
- Penis: the male genital organ, carrying the duct for the transfer of sperm during copulation. It consists largely of erectile tissue and serves also for the elimination of urine.
- Seminal vesicle: each of a pair of glands that open into the vas deferens near its junction with the urethra and secrete many of the components of semen.
- Vas Deferens: the duct that conveys sperm from the testicle to the urethra. ORIGIN late 16th cent.: from vas (vessel) + Latin deferens 'carrying away,' present participle of deferre .
- Fallopian tubes: a pair of tubes along which eggs travel from the ovaries to the uterus
- Ovaries: a female reproductive organ in which ova or eggs are produced ORIGIN mid 17th cent.: from modern Latin ovarium, from Latin ovum 'egg.'
- Uterus: the organ in the lower body of a woman where offspring are conceived and in which they gestate before birth; the womb.
- Cervix: the narrow neck-like passage forming the lower end of the uterus.
- Vagina: the muscular tube leading from the external genitals to the cervix of the uterus

Textbook reference and written work:

- Read Genesis 1, then reread Genesis 1:24-31 (verses 24-31 are the theme verses for 6th Grade)
- Anatomy of the Human Body by Henry Gray (1918)

Materials:

- Bible
- Black board, white board, or something upon which to make lists with students
- Blank paper or Creation chart template (link below in Suggested Daily Schedule)
- Coloring/drawing tools (Crayons, colored pencils, markers, etc.
- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Female Reproductive System
- Male Reproductive System
- Female Reproductive System- Quiz
- Male Reproductive System- Quiz
- Human Reproduction
- Human Gestation
- The Unique Human Embryo

Suggested Daily Schedule:

Day 1:

- Discuss:
  - God's command to Adam and Eve, and thus to us, was to be fruitful and multiply. Note the study note for Genesis 1:28. God was explicit that being fruitful and multiplying was intended for within the protection of marriage.
  - In order to provide man the ability to be fruitful and multiply, God gave man reproductive organs. You will note that male and female reproductive organs and not only fearfully and wonderfully made, but also unique to one another.
- Define:
  - Words to Remember

Day 2:

- Discuss:
  - Look at the Reproductive System diagrams. Discuss them in relation to the other systems thus far studied.
  - We live in a world that denies God made man (humans) male and female. Apart from all of the other ways in which God has made males and females uniquely different, how does the anatomy of male and female give credence to the fact that God made males and females unique from one another?

Week 34

Topics:

- Humans
- Reproductive System

Words to Remember:

- Genesis 1:24-31
- Bladder: a membranous sac in which urine is collected for excretion
- Urethra: the duct by which urine and semen are conveyed out of the body from the bladder
- Prostate: a gland surrounding the neck of the bladder in males
- Penis: the male genital organ, carrying the duct for the transfer of sperm during copulation. It consists largely of erectile tissue and serves also for the elimination of urine.
- Seminal vesicle: each of a pair of glands that open into the vas deferens near its junction with the urethra and secrete many of the components of semen.
- Vas Deferens: the duct that conveys sperm from the testicle to the urethra. ORIGIN late 16th cent.: from vas (vessel) + Latin deferens 'carrying away,' present participle of deferre .
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- Male Reproductive System
- Female Reproductive System- Quiz
- Male Reproductive System- Quiz
- Human Reproduction
- Human Gestation
- The Unique Human Embryo

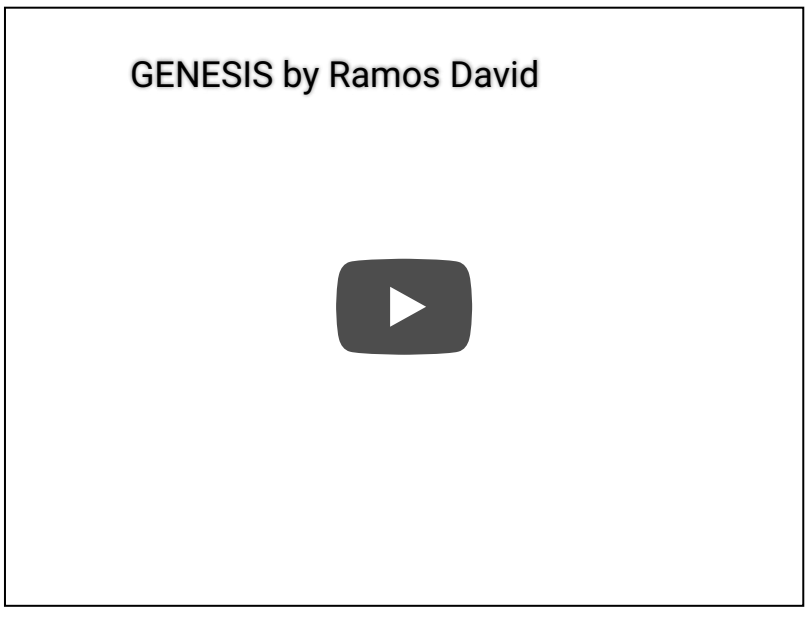
Suggested Daily Schedule:

Day 1:

- Read:
  - Human Reproduction
- Discuss:
  - How does God uniquely provide man (humans) the means to follow His command to be fruitful and multiply?

Day 2:

- Read:
  - Human Gestation
  - The Unique Human Embryo
- Explore more:
  - This video called Genesis by David Ramos is a beautiful 3D animated look at life beginning at conception



Week 35

Topics:

- Humans
- Integumentary System

Words to Remember:

- Genesis 1:24-31
- Integumentary: a tough outer protective layer ORIGIN early 17th cent. (denoting a covering or coating): from Latin integumentum, from the verb integere, from in- ‘in’ + tegere ‘to cover.’
- Epidermis: the outer layer of cells covering an organism ORIGIN early 17th cent.: via late Latin from Greek, from epi ‘upon’ + derma ‘skin.’
- Dermis: the thick layer of living tissue below the epidermis that forms the true skin, containing blood capillaries, nerve endings, sweat glands, hair follicles, and other structures.
- Hypodermis: the layer of cells beneath the dermis
- Superficial arteriovenous plexus: clusters of veins and arteries immediately below the dermis
- Papillary dermis: The papillary dermis is the uppermost layer of the dermis. It intertwines with the rete ridges of the epidermis and is composed of fine and loosely arranged collagen fibers.
- Reticular dermis: The reticular dermis is the lower layer of the dermis, found under the papillary dermis, composed of dense irregular connective tissue featuring densely packed collagen fibers. It is the primary location of dermal elastic fibers.
- Meissner's corpuscle: a sensory nerve ending that is sensitive to mechanical stimuli, found in the dermis in various parts of the body.
- Sweat duct: a small gland that secretes sweat, situated in the dermis of the skin. Such glands are found over most of the body, and have a simple coiled tubular structure.
- Deep arteriovenous plexus: clusters of veins and arteries in the hypodermis
- Subcutaneous fat: fat found just beneath the skin
- Eccrine sweat gland: any of the rather small sweat glands that produce a fluid secretion without removing cytoplasm from the secreting cells and that are restricted to the human skin
- Eccrine sweat duct: tube through which eccrine sweat is released
- Hair follicle: the sheath of cells and connective tissue that surrounds the root of a hair.
- Sebaceous gland: a small gland in the skin which secretes a lubricating oily matter (sebum) into the hair follicles to lubricate the skin and hair.
- Arrector pili muscle: small muscles attached to hair follicles in mammals. Contraction of these muscles causes the hairs to stand on end, known colloquially as goose bumps.
- Dermal papillae: small, nipple-like extensions (or interdigitations) of the dermis into the epidermis. At the surface of the skin in hands and feet, they appear as epidermal or papillary ridges (colloquially known as fingerprints).
- Hair shaft: any of the fine threadlike strands growing from the skin
- Opening of sweat duct: point where the sweat duct exits the skin

Textbook reference and written work:

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Materials:

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- (Optional) In the Beginning, God: Creation from God's Perspective by Dr. Joel Heck
- Skin
- Melanin
- Integumentary system diagram
- Integumentary system quiz
-

Suggested Daily Schedule:

Day 1:

- Discuss:
  - What does integumentary mean?
  - Have you ever taken your skin for granted? Skin, believe it or not, is a fantastic gift from God and is part of His provision for our lives.
  - Look at the Integumentary system diagram.
  - What do you notice in terms of how the structures in the Integumentary system relate to other systems you have studied?

Day 2:

- Define:
  - Words to Remember

Week 36

Topics:

- Humans
- Integumentary System

Words to Remember:

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Textbook reference and written work:

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- Skin
- Melanin
- Integumentary system diagram
- Integumentary system quiz
-

Suggested Daily Schedule:

Day 1:

- Read:
  - Skin
- Discuss:
  - How does God provide for us through our skin?

Day 2:

- Read:
  - Melanin
- Discuss:
  - How does the Integumentary system relate to all of the systems you studied?
- Write:
  - Conclude your study of the human body with a confirmation (see Language) that God has made us fearfully and wonderfully.