

ARETE HONORS SCIENCE - LOWER SCHOOL - COURSE SYLLABUS

Wayfarers: Anatomy & Astronomy

A classical Christian Honors living-science tutorial

2026–2027 • Grades 2-3 • Weekly two-hour tutorial

“The heavens, they are many, and they cannot be numbered unto man; but they are numbered unto me, for they are mine.”

—Moses 1:37

“I dare say there is no treasure the like of understanding. Who would not undertake any labor, you champions of wisdom, to acquire it?”

—Christine de Pizan

Scale How School - Arete Honors Science

Course Description

Wayfarers invites young students to observe creation carefully, remember useful names and patterns, ask honest questions, and explain what they notice in complete sentences. The first term develops night-sky literacy through H. A. Rey's Find the Constellations, a black-paper constellation notebook, teacher-led models, simulations, and a supervised star party. The second term studies body systems and comparative anatomy through selected readings from Worthington Hooker, modern scientific clarification, songs, models, movement, and hands-on investigations.

Astronomy is taught during the first term so that the dark-night star party can be held during the earlier winter darkness. Anatomy follows in the second term.

Course Promise

Complex does not mean impossible. Every major concept is taught with a visual model, an analogy or memory tool, guided practice, and repeated opportunities to explain the idea in the student's own words.

Anatomy Instruction

The anatomy portion of this course does not include reproductive anatomy or reproductive health instruction. Readings, songs, and activities are selected accordingly.

Course Information

Item	Details
Program	Arete Honors Science - Lower School
Grades	2-3
Meetings	36 weekly two-hour tutorials
Course sequence	Astronomy in Weeks 1-18; Anatomy in Weeks 19-36
Course color	Gold - used for the Wayfarers Anki deck and course materials
Class books	Copies of both course books are provided during the tutorial
Online platform	No Moodle account is required

Essential Questions

- What can the ordered heavens teach us about careful observation, pattern, and wonder?
- How do body structures and systems work together to sustain life?
- How do models help us understand things that are too large, small, distant, or hidden to observe directly?
- How can we tell the difference between an observation, a story, a model, and an explanation?
- How can truthful scientific work become an act of gratitude and stewardship?

Learning Outcomes

- Recognize and describe the Big Dipper, Little Dipper, Polaris, Cassiopeia, Cepheus, Draco, Orion, Andromeda, and Bootes at an introductory level.
- Use a simple star map and a planetarium simulation to connect direction, date, time, and visible sky patterns.
- Explain apparent sky motion, seasonal visibility, star color and brightness, and solar-system scale with age-appropriate models.
- Identify major parts and basic functions of the digestive, circulatory, respiratory, nervous, sensory, skeletal, muscular, excretory, and immune/lymph systems taught in the course.
- Compare structures and functions in people and animals without treating an analogy or historical claim as exact scientific fact.
- Keep a dated commonplace journal with drawings, labels, brief narrations, results, and revisions.
- Complete and present two individual science projects using a question, prediction, method, evidence, and conclusion.

Course Sequence

Weeks	Term	Focus	Culminating work
1-18	Astronomy	Night-sky patterns, maps, apparent motion, Moon, planets, scale, and telescope practice	Dark-night star party and Astronomy project presentation
19-36	Anatomy	Body systems, senses, bones, muscles, comparative structures, protection, and sleep	Anatomy project presentation and commonplace-journal gallery

Books Used in Class

Astronomy book: Find the Constellations by H. A. Rey.

Anatomy book: The Child’s Book of Nature 2: Animals by Worthington Hooker. The teacher will clarify dated language or scientific claims during instruction.

The tutorial provides enough copies for every student to use both books during class; families do not need to purchase them. Students will learn to follow along in the text and, as reading ability allows, will take turns reading short passages aloud.

Teacher music resource: Selected non-reproductive songs from Lyrical Life Science Volume 3: The Human Body.

Teacher guide: Living Science Study Guide, Form 2 Astronomy, adapted for weekly classroom use and grades 2-3.

Student Materials

Item	Who provides it	Notes
1-inch binder	Family	For handouts and project pages
Pencils and colored pencils	Family	Named and brought weekly
Black-paper constellation notebook	Tutorial	Provided through the course materials fee
Metallic gel pens	Tutorial	Provided through the course materials fee
Science models and investigation supplies	Tutorial	Unless a project requires family-selected materials

Optional Science and Nature-Lore Reading

These optional selections are adapted from AmblesideOnline's current science and natural-history recommendations for AO Years 2–3. They are not required, graded, or a substitute for assigned course reading. Families may choose according to interest and reading level; parent read-alouds and audiobooks are welcome.

- The Burgess Animal Book for Children — Thornton W. Burgess (AO Year 2)
- Tree in the Trail — Holling C. Holling (AO Year 2)
- Seabird — Holling C. Holling (AO Year 2)
- Pagoo — Holling C. Holling (AO Year 3)
- Secrets of the Woods — William J. Long (AO Year 3)

Current source schedules: [AmblesideOnline Year 2 schedule](#) • [AmblesideOnline Year 3 schedule](#)

Encouraged Family Outside Reading

Each Arete family is encouraged to keep one shared family copy of The God Proofs: How Science Points to YOUR Creator by Douglas Ell. This is optional family outside reading, not a class-specific text, and it may or may not be referred to during tutorials.

Tuition and Materials

Annual tuition: \$330
Materials fee: \$50 per student
Total annual cost: \$380, or approximately \$10.56 per week across the 36-week program. Children of Arete teachers receive a \$50 tuition discount per enrolled student, making the annual total \$330, or approximately \$9.17 per week, including the materials fee.

Scale How School is a nonprofit and strives to keep this small-group Honors tutorial affordable. All tuition is used for teacher compensation; the separate materials fee pays for course materials.

Weekly Tutorial Rhythm

- 10 minutes - welcome, prayer or opening, retrieval, and commonplace-journal check
- 20 minutes - short spine reading, oral narration, discussion, and teacher explanation
- 15 minutes - demonstration, image study, simulation, or song
- 40 minutes - investigation, model, movement, or constellation studio
- 10 minutes - movement and reset
- 20 minutes - commonplace-journal drawing, labels, results, and complete-sentence explanation
- 5 minutes - closing retrieval and Anki preview

The teacher may also read aloud from an age-appropriate, science-related novel. This reading is woven into the weekly rhythm as time permits.

Narration, Discussion, and the Commonplace Journal

Narration is the student's act of telling back what has been understood. A narration may be oral, a brief complete-sentence response, a labeled drawing, or a collaborative retelling. Students are not expected to repeat every detail; they practice identifying the central idea and explaining important relationships in their own words.

Guided discussion invites students to give reasons for their answers and to distinguish observation, inference, model, analogy, and belief. The commonplace journal collects dated drawings, labels, observations, results, short narrations, and visible revisions so that growth in scientific thinking can be seen across the year.

Projects and Presentation

Each student completes two individual projects: an Astronomy project presented in Week 18 and an Anatomy project presented in Week 36. Parents may help with safety, scheduling, reading directions, and recording dictated words, but the question, observations, work, and explanation should remain recognizably the student's own.

Approved project idea sources: [Science Buddies](#) and [Science Fair Adventure](#).

- Ask one manageable question.
- Make a prediction and explain why.
- Follow a safe plan and change one thing at a time when a fair test is appropriate.
- Record dated observations, counts, measurements, drawings, or photographs.
- State what happened and what the evidence suggests; it is acceptable when a prediction is not supported.
- Present for about two to four minutes and answer one kind audience question.

Assessment, Report Cards, and Continuation

Grading category	Weight
Participation, classwork, commonplace journal, narration, collaboration, and careful cleanup	70%
Two individual science projects	25%
Short midterm and end-of-term evaluations in each term, combined	5%

Each term includes a short midterm and end-of-term evaluation using age-appropriate true/false and multiple-choice questions. These are brief checks of recognition and understanding and carry very little weight in the final grade.

Every student receives a report card. At the end of the year, each family also receives a written recommendation regarding the student's continued enrollment in the Arete Honors Science program.

All families are strongly encouraged to use the gold Wayfarers Anki deck for brief, consistent review. A suggested pattern is four new cards and one short review session, three days per week. Anki practice is ungraded, and no Moodle account is needed.

Star-Party Expectations

- The event is scheduled within the Weeks 14-17 window on the darkest practical clear evening.
- A parent or designated adult follows the school's event policy and remains responsible for transportation and outdoor clothing.
- Students use red lights, walk inside marked boundaries, wait for an adult before touching a telescope, and record what they actually observe.
- No telescope or optical device is ever pointed at the Sun. The star party is a night event only.
- If weather cancels the event, the teacher uses the prepared Stellarium cloudy-night program in class.