8th Grade Scope and Sequence
Medieval World

Humanities (including geography and art appreciation)

Summer Read: *Crispin: Cross of Lead* by Avi
The Plutarch Project, Vol. 7: Pompey and Themistocles
A Castle with Many Rooms by Lorene Lambert
The Rule of St. Benedict
Beowulf the Warrior
King Arthur: Tales from the Round Table by Andrew Lang
Sir Gawain and the Green Knight
The Canterbury Tales by Chaucer, Pardoner and Nun Priest
A Midsummer Night's Dream by Shakespeare
The Silver Chair by C.S. Lewis

Students will:

1. Locate important information on maps in relation to the time period in which it occurred.
2. Identify the four countries, capitals, and bodies of water for the United Kingdom.
3. Identify the five countries, capitals, and bodies of water for Scandinavia.
4. Identify the main countries and capitals of Western Europe.
5. Compare/contrast Norse myths with stories from the Bible.
6. Read aloud and discuss a Plutarch life once a week.
7. Write structured narrative and summary paragraphs of assigned readings (see Writing below).
8. Write original poems imitating structure studied in class, such as alliterative poetry.
9. Write original dialogue and short stories using our knowledge of chivalry, knights, and quests.
10. Complete a picture study of relevant subjects twice a month, learning how to "read" fine art, beginning with a basic understanding of lines from creation. Teacher references: Mary Loughran's *Leading a Discussion on a Work of Art*, Simply Charlotte Mason's *The Stuff They Left Behind*, and principles of picture study from Charlotte Mason.
    a. Anglo Saxon armor jewelry
    b. *Book of Kells*, Chi-Ro page, gospels page and Greek symbols
    c. Lindisfarne gospels
    d. The Alfred Jewel
    e. Sutton Hoo exhibits at the British Museum
    f. Winchester School of Art
    g. Winchester Cathedral
    h. Aberdeen Bestiary
    i. Bayeaux Tapestry
    j. Angers Cathedral restored panels in France

   k. Canterbury Cathedral virtual tour as a pilgrim
   l. Ellesmere manuscript of Canterbury tales
11. Learn research methods: determining credible sources, types of sources, how to cite, quote, avoiding plagiarism.
12. Research one Norse god or goddess and their tales and present a speech-in-character.
13. Research one historical castle with a partner and create a 3D model to present. Two-part presentation.
14. Learn about the need for simple heraldry on the battlefield. Learn French tinctures, charges, and symbols and design your own shield. Prepare to teach these skills to 4th grade.
15. Prepare for and participate in a Medieval Living History day with the 4th grade.
16. Review essay structure and ANI charts (LTOW) to argue whether Beowulf is a hero or not and to argue whether Gawain is a Christian or not. Collect textual evidence and write a first draft for teacher feedback, then revise and write a final draft.

Art

Students will

1. Review and refine basic drawing skills and how to apply skills to artwork done in class
2. Identify Elements of Art, Principles of Design, and color theory.
3. Learn how to apply understanding of elements to masterpiece artwork.
4. Analyze artwork through observation, active listening, and engagement in class.
5. Study Byzantine Art and create glass tile mosaics.
6. Learn calligraphy and create and paint illuminated manuscripts.
7. Review perspective and create cathedral architecture drawings.
8. Study the Bayeux Tapestry and create woven tapestries.
9. Study cathedral gargoyles and create charcoal drawings.

Bible, Old Testament Story

ESV Journal Bible
Students will

1. Recite and memorize verses in chapel based on our quarterly virtues.
2. Begin learning about the Bible–its history, reception, and inspiration.
3. Begin learning how to read the Bible for understanding and spiritual formation.
4. Learn the story of God's relationship with humanity from Creation to Exile
5. Explore key theological ideas, including (but not limited to): Who is God? What is the gospel? What is redemption? What is a covenant? When/Where did OT events happen? How does the OT relate to the NT?
6. Learn practices for conducting Bible studies, taking notes on/in the Bible, and other spiritual disciplines related to Bible intake.

Memory Work

1. One passage from or about medieval poetry: Tennyson's "Lady of Shalott" or his "Passing of Arthur."
2. *Sir Gawain and the Green Knight*, Fitts 2,3,5
3. Nehemiah 9

Math

Algebra 1, HMH

Students will learn:

1. **Basic Arithmetic:** Perform basic operations (addition, subtraction, multiplication, and division) on whole numbers, fractions, and decimals. Complete long division and multiplication. Complete long divisions and multiplication of decimal numbers. Prime factorize integers.
2. **Exponents and Roots:** How to interpret powers according to the number of an exponent. How to interpret roots according to the value of an index. How to use the product rule of exponents. How to use the power rule of exponents. How to interpret negative exponents. How to use the product rule of radicals. How to use the power rule of radicals. How to simplify radical expression with imperfect roots.
3. **Place Value:** Recognize place value as a power of 10. How to correlate values greater than 1 as powers of 10 greater than or equal to 0. Correlate values less than 1 as negative exponents. Write in values in scientific notation.
4. **Basic Algebra:** Evaluate a variable. Recognize a coefficient. Recognize and define like terms. Add and subtract like terms. Multiply and divide algebraic expressions. Apply sign rules when solving algebraic expressions or equations. How to factor an expression. How to distribute a factor.
5. **Algebraic Phrases**: How to translate algebraic expressions into mathematical notation.
6. **Inequalities:** Recite the meaning of statements of inequality. How to use and write inequalities according to the trichotomy law of inequalities. How to write statements based on negated signs of inequality. How to simplify complex statements of inequality.
7. **Polynomials:** How to name and produce the basic definition of a polynomial. How to recognize monomials, binomials, and trinomials. How to identify the degree of a polynomial. How to multiply and divide polynomials.
8. **Geometry:** How to find the perimeter of polygons and circles. How to find the area of polygons and circles. How to find the volume of right solids, pyramids, cones, and spheres.
9. **Analytic Geometry:** How to plot a point in coordinate space. How to name the definition of linear equations. How to write linear equations in slope intercept form. How to find the slope between two points in coordinate space. How to find a point of intersection in a system of two linear equations, using substitution and elimination. How to name and use the definition of a function. How to identify the domain and range of a function. How to determine if a system of equations is consistent, inconsistent, or dependent. How to graph nonlinear equations. How to prove the quadratic formula.
10. **Properties of Algebra:** Name and identify the identitive property of addition and multiplication. Name and identify the commutative property of addition and multiplication. Name and identify the associative property of addition and multiplication. Name and use the distributive property of multiplication. Name and use algebraic subtraction. Name and use properties of equality. Name and use properties of inequality.
11. **Algebraic Rational Expressions**: How to find the LCM of algebraic terms. How to find the GCF of algebraic terms. How to add, subtract, multiply, and divide rational algebraic expressions. How to simplify rational algebraic expression when raised by a positive or negative exponent. How to simplify rational algebraic expressions that are located under a radical.
12. **Word Problems**: How to solve movement problems. How to solve linear motion problems. How to solve abstract distance problems.
13. **Probability:** How to determine probability according to repeating or non-repeating situations.

Logic

The Art of Argument by Jolie Hodge

Students will:

1. Learn the fallacies belonging to each major category.
    a. *Ad Fontem*
    b. *Appeals to Emotion*
    c. *Red Herring*
    d. *Fallacies of Presumption*
    e. *Fallacies of Induction*

   f. *Fallacies of Clarity*

2. Learn the principle definition of logic: the art of right reasoning.
3. Distinguish arguments from explanations or descriptions.
4. Learn the definitions of *validity, soundness, strength, and cogency.*
5. Recognize the difference between *deductive and inductive* arguments.
6. Learn the definition of *contradiction* and how to recognize contradiction in an argument.
7. Learn simple argument forms that guarantee validity.
   a. Modus Ponens
   b. Modus Tollens
   c. Hypothetical Syllogism
   d. Disjunctive Syllogism
   e. Conjunction
   f. Disjunction
8. Learn how to outline an argument according to its premises and conclusion.
9. Learn how to think about pattern connection and solve formal analogy problems.

Writing in all subjects

Students will:

1. Form a key word outline (IEW)
2. Use MLA headings and write in MLA format
3. Create titles for assignments
4. Use topic-clincher sentences
5. Change out banned words: go, went, say, said, good, bad, big, little
6. Vary sentence structures
7. Vary sentence beginnings
8. Retell and rewrite stories in own words
9. Identify potential arguments using ANI charts (LTOW)
10. Write analytical paragraphs and essays about relevant topics.

Latin

Second Form Latin continues the journey of Latin grammar. Building on what the student learned the previous year, *Second Form* reviews all material in *First Form*, completes the verb paradigms for all four conjugations in the indicative active and passive, and adds many more common Latin sayings.

Students will learn:

1. Six indicative active and three indicative passive tenses of all four verb conjugations
2. Five noun declensions, including -er/-ir nouns and i-stem nouns
3. Adjectives in three declensions
4. Personal pronouns
5. Prepositions
6. 365 vocabulary words (185 in *First Form*, and another 180 new words in *Second Form*)

Recitation: John 1

Earth Science

Novare Earth Science by Kevin Nelstead

Students will learn

1. **Spheres of Earth Science [Chap. 1]:** The difference between the lithosphere, hydrosphere, biosphere, and atmosphere, specializations of earth science, necessary conditions for life to exist, position of the earth in the "habitable zone", the earth's orbit, solstices and equinoxes, moon phases, the difference between the Julian calendar and the Gregorian calendar, solar calendars and lunar calendars.
2. **Cartography [Chap. 2]**: Latitude and longitude, definitions of the equator and the prime meridian, map projections and their use, navigation techniques, the history and use of a compass (terrestrial and naval) and a chronometer, topographic maps, calculating the slope of an include on a topographic map.
3. **Empiricism and Method [Chap. 3]**: Definition of the cycle of scientific enterprise, definition of empirical science and historical science, factors in the difference between empirical science and historical science, examples of historical science, definition of stewardship, difference between types of knowledge.
4. **Mineralogy [Chap. 4-5]**: Definition of atom and molecule, definition of atomic number and atomic mass, definition of molecular bond, definition of mineral, definition and examples of color, luster, streak, density, hardness, crystal form, fracture, cleavage, definition and examples of gems, mining practices, definition of rock, the rock cycle, mineral compounds in magma/lava, definition of igneous, sedimentary, and metamorphic rock, definition of sediment, techniques for recognizing types of rock, coal as an energy source.
5. **Techtonics [Chap. 6 and part of Chapter 7 (183-195)]**: Alfred Wegner's theory of continental drift and evidence for his theory, definition of tectonic plate, continental margins, mid-ocean ridges and sea-floor expansion, definition of guyot and atoll, definition of the asthenosphere and its role in tectonic shifting, movement of plate boundaries, folding patterns and fault patterns in the construction of landmarks, definition of elastic deformation and elastic rebound, types of seismic waves, definition of an epicenter, reading a seismograph, definition of earthquake magnitude, use of the Mercalli intensity scale, tsunami's relationship to seismic activity.
6. **Volcanology [Chap. 7]**: Location and significance of the ring of fire, definition and significance of pillow lava to empirical and historical science, definition of mafic, intermediate, and felsic lava flows, volcanic activity at convergent boundaries, hotspot activity, types of pyroclastic material other than lava, types of volcanoes, types of magma chambers, definition and significance of a caldera, behavior of the mantle, behavior of the earth's core.
7. **Weathering and Erosion [Chap. 8]**: Difference between mechanical weathering and chemical weathering, process of weathering, agents of erosion, difference between weathering and erosion, soil composition and soil qualities, soil horizons and soil formation, soil types, conservation of soil types.
8. **Effects of Water [Chap. 9]:** Definition of the hydrologic cycle, stream activity, stream patterns, laminar flow, stream and river discharge rates, stream profiles and base level, stream deposition, deltas, stream beds, meanders and changing stream directions, levees, groundwater in the form of aquifers, guisers, porosity and permeability of soil types, springs and wells, subterranean groundwater landforms.
9. **Landforms [Chap. 10]**: Landforms created by mass movement (rockfalls, landslides, slumps, and debris flows), landforms created in desert erosion, definition of deflation, landforms created by moving ice flows/glaciers (fjords, valleys).
10. **Historical Science [Chap. 11]**: Definition of geological time, relative age of different layers of rock, unconformities in rock layers, fossils and preservation types, absolute dating with radiometric dating, sedimentary environments, historic timeline of geological age, history of different eras.
11. **Oceanography [Chap. 12]**: History of oceanic exploration, ocean salinity, concentration of other elements in ocean water, physical properties of ocean water, currents and wave types, tidal activity and types of tides, marine life in different zones of the ocean, shoreline environments, human impact on coastlines.
12. **Atmosphere [Chap. 13]**: Atmospheric composition, layers of the atmosphere and physical properties of each layer, temperature scales, atmospheric pressure, wind patterns, humidity and dewpoint, energy transfer through the atmosphere, evaporation patterns, global wind patterns, the jet stream.

13. **Meteorology [Chap. 14]**: Pressure systems, condensation and buoyancy, types of clouds, air mass and pressure fronts, meteorological models of fronts, reading front maps, forecasting systems, severe weather patterns,
14. **Climate Science [Chap. 15]:** Factors in determining climate, reading climate charts, types of climate and climate groups, human factors in climate change, types of pollutants.

Physical Education/Gymnastic

Student will

1. Grow in their understanding of human persons as embodied creatures.
2. Learn to care for their bodies with proper exercise.
3. Learn to participate in team activities and personal fitness.