**Earth Systems and Resources (10%–15%)**

* 1. Earth Science Concepts (Geologic time scale; plate tectonics, earthquakes, volcanism; seasons; solar intensity and latitude)
  2. The Atmosphere (Composition; structure; weather and climate; atmospheric circulation and the Coriolis effect; atmosphere-ocean interactions; ENSO)
  3. Global Water Resources and Use (Freshwater/saltwater; ocean circulation; agricultural, industrial, and domestic use; surface and groundwater issues; global problems; conservation)
  4. Soil and Soil Dynamics (Rock cycle; formation; composition; physical and chemical properties; main soil types; erosion and other soil problems; soil conservation)

**The Living World (10%–15%)**

* 1. Ecosystem Structure (Biological populations and communities; ecological niches; interactions among species; keystone species; species diversity and edge effects; major terrestrial and aquatic biomes)
  2. Energy Flow (Photosynthesis and cellular respiration; food webs and trophic levels; ecological pyramids)
  3. Ecosystem Diversity (Biodiversity; natural selection; evolution; ecosystem services)
  4. Natural Ecosystem Change (Climate shifts; species movement; ecological succession)
  5. Natural Biogeochemical Cycles (Carbon, nitrogen, phosphorus, sulfur, water, conservation of matter)

**Population (10%–15%)**

* 1. Population Biology Concepts (Population ecology; carrying capacity; reproductive strategies; survivorship)
  2. Human Population

**Land and Water Use (10%–15%)**

* 1. Agriculture
  2. Forestry (Tree plantations; old growth forests; forest fires; forest management; national forests)
  3. Rangelands(Overgrazing; deforestation; desertification; rangeland management; federal rangelands)
  4. Other Land Use
  5. Mining (Mineral formation; extraction; global reserves; relevant laws and treaties)
  6. Fishing (Fishing techniques; overfishing; aquaculture; relevant laws and treaties)
  7. Global Economics (Globalization; World Bank; Tragedy of the Commons; relevant laws and treaties)

**Energy Resources and Consumption (10%–15%)**

* 1. Energy Concepts (Energy forms; power; units; conversions; Laws of Thermodynamics)
  2. Energy Consumption
  3. Fossil Fuel Resources and Use (Formation of coal, oil, and natural gas; extraction/purification methods; world reserves and global demand; synfuels; environmental advantages/disadvantages of sources)
  4. Nuclear Energy (Nuclear fission process; nuclear fuel; electricity production; nuclear reactor types; environmental advantages/disadvantages; safety issues; radiation and human health; radioactive wastes; nuclear fusion)
  5. Hydroelectric Power (Dams; flood control; salmon; silting; other impacts)
  6. Energy Conservation (Energy efficiency; CAFE standards; hybrid electric vehicles; mass transit)
  7. Renewable Energy (Solar energy; solar electricity; hydrogen fuel cells; biomass; wind energy; small-scale hydroelectric; ocean waves and tidal energy; geothermal; environmental advantages/disadvantages)

**Pollution (25%–30%)**

* 1. Pollution Types
  2. Impacts on the Environment and Human Health
  3. Economic Impacts (Cost-benefit analysis; externalities; marginal costs; sustainability)

**Global Change (10%–15%)**

* 1. Stratospheric Ozone (Formation of stratospheric ozone; ultraviolet radiation; causes of ozone depletion; effects of ozone depletion; strategies for reducing ozone depletion; relevant laws and treaties)
  2. Global Warming (Greenhouse gases and the greenhouse effect; impacts and consequences of global warming; reducing climate change; relevant laws and treaties)
  3. Loss of Biodiversity

**Exam Review Schedule**

* On the due dates listed below you will have a quiz on the review topic focused primarily on vocabulary (all vocabulary words are organized by chapter beginning on page 246) and multiple choice questions.
* For each chapter reading in the Princeton Review book, you will be expected to either write margin notes on post-its (or directly in the book) or keep notes on a separate sheet of paper. You must also answer the multiple choice and free response questions (**completely answered)** at the end of each chapter. Don’t worry about the Reflect Activity.
* Your chapter notes from the review book will be checked every Friday and will count as a 10 point exam - incomplete chapter notes and answers will count as a 0.

**Friday, March 20**

* Princeton Review Chapter 4 Earth’s Interdependent Systems (Pages 43-77)

**Friday, March 27**

* Princeton Review Chapter 5 The Inhabitants of Planet Earth (Pages 79-105)

**Thursday, April 2**

* Princeton Review Chapter 6 Population Ecology (Pages 107-133)

**Monday, April 13**

* Princeton Review Chapter 7 Resource Utilization and Chapter 8 (Pages 135-179)

**Friday, April 17**

* Princeton Review Chapter 8 Pollution (Pages 181-214)

**Friday, April 24**

* Princeton Review Chapter 10 Culture, Society, and Env Quality (Pages 217-231)

**Saturday Prep Sessions (9 a.m. - 12 p.m.)**

**April 18** - Math, Math, Math!

**April 25** - FRQ, FRQ, FRQ!

**May 2** - MIXED REVIEW!