Ch 1: Everything!

Environment Wackernagel & Rees' ecological Paradigm

Environmental science footprint Environmental ethics
Natural resources Easter Island (pages 8-9) Anthropocentric
(renewable/nonrenewable) Interdisciplinary Biocentric
Human population (agricultural & Environmentalism Ecocentric

industrial revolutions) Science John Muir (preservation ethic)
Thomas Malthus Carl Sagan Gifford Pinchot (conservation ethic)

Ehrlich's "Population Bomb" Scientific Method (6 steps) Aldo Leopold (land ethic)

Garret Hardin's "The Tragedy of the Commons" Hypothesis Ecofeminism

Peer review Environmental justice

Theory Sustainability

Ch 2: Everything *except* "The Environmental Policy Process" (don't forget the video re: Tijuana River watershed)

Case studySteady-state economicsNEPA / EPA / EISWatershedEnvironmental economistsCEQA / EIRMaquiladoraRobert CostanzaPresident NixonEconomicsMarket failureCommand-and-control

EconomiesUS Environmental PolicySubsidyEcosystem services3-wavesGreen taxesAdam Smith (classical economics)Rachel Carson "Silent Spring"Permit tradingExternal costsCuyahoga RiverEcolabeling

Ecological economists Santa Barbara oil spill

Ch 3: Pages 49-52;

Pages 54-55 ("The Science Behind the Story");

Pages 63-69 (know biogeochemical cycles).

(skip sections entitled: "chemistry"," energy fundamentals" & "ecosystems")

Dead zonePositive & negative feedback loopsCarbon cycleHypoxiaFrontline episode: "Poisoned Waters"Nitrogen cycleEutrophicationBiogeochemical (nutrient) cyclesHydrologic cycle

System / ecosystem how have we altered them?

Ch 4: Pages 73-75 (case study, evolution, natural selection, Darwin & Wallace, adaptive trait/adaptation, mutation)

Pages 78-79 (extinction, mass extinction events)

Page 81 (specialists, small population – as relates to vulnerability to extinction. Think: Golden Toad)

Pages 88-89 ("The Science Behind the Story")

Golden Toad (case study) Alfred Russel Wallace Mass extinction events

Evolution Adaptive trait / adaptation Specialists

Natural selectionMutationPopulation size (genetic variability)Charles DarwinExtinction"The Science Behind the Story"

Ch 5: Page 112 (chaparral, mediterranean)

Essay: Remember the "Student Learning Outcome" for the class (as described on the syllabus)?

Upon completion of this course, the student will have demonstrated the ability to critically evaluate arguments regarding environmental issues.

Just as Annie Leonard did in "The Story of Stuff", you will be asked to **take a position** with respect to an environmental issue and support your position with **evidence**.

Evidence must be drawn from material you learned in this class (remember the main themes we've addressed this semester: atmosphere/air quality, global climate, energy, waste management / mineral resources, water (fresh water & oceans), environmental health & toxicology, soil/agriculture/food, human population, economics/policy).