

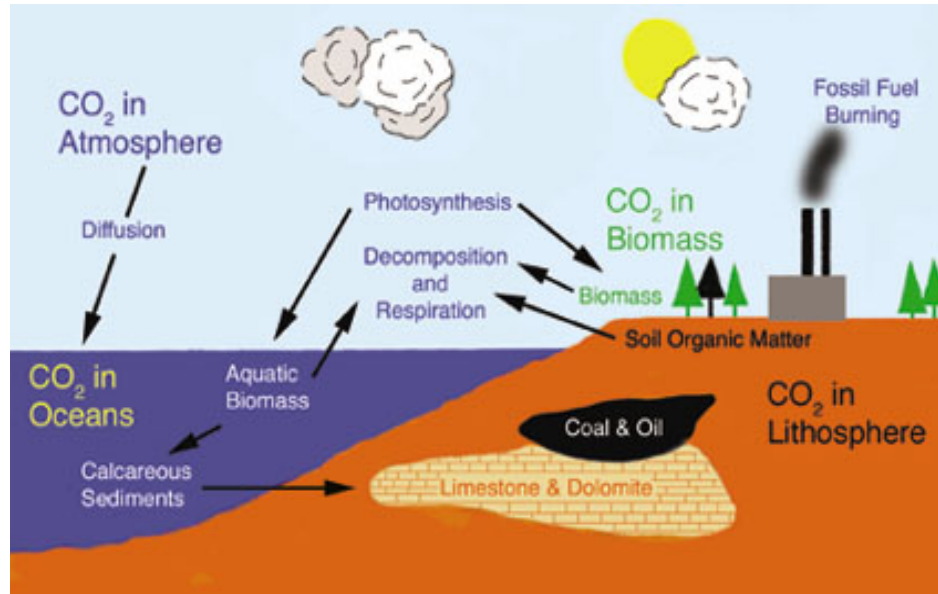
Integrated Science Study Guide (8th) (Weeks 1 & 2)

Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women's empowerment. Solutions to one problem must be solutions for all.

--- Ban Ki-moon

Pollution is a serious one. Water pollution, air pollution, and then solid hazardous waste pollution. And then beyond that, we also have the resources issue. Not just water resources but other natural resources, the mining resources being consumed, and the destruction of our ecosystem.

--- Ma Jun



Overview

Interactions of matter and energy through geologic processes have led to the uneven distribution of natural resources. Many of these resources are nonrenewable, and per-capita use can cause positive or negative consequences. Global temperatures change due to various factors, and can cause a change in regional climates. As energy flows through the physical world, natural disasters can occur that affect human life. Humans can study patterns in natural systems to anticipate and forecast some future disasters and work to mitigate the outcomes.

Essential questions:

- What is your ecological role in your local environment?
- How is balance related to energy?

Week 1: Due March 31

- _____ 1. Read the overview and quotes with the class and mark them up.
- _____ 2. Make vocabulary cards or fill out vocabulary sheets for the following words: **ecosystem, biome, climate, combustion, fossil fuel, natural resource, conservation, ecology, environmentalism.**
- _____ 3. Participate in and take notes on the lesson: Food Webs

Name _____ Period: _____

Cycle 4 March 27 – May 19

_____ 4. Research and create a Food Web specific to a known ecosystem (Due April 14).

_____ 5. Complete the Lab: The Effect of Humans on Climate and Ecosystems.

Week 2: Due April 14

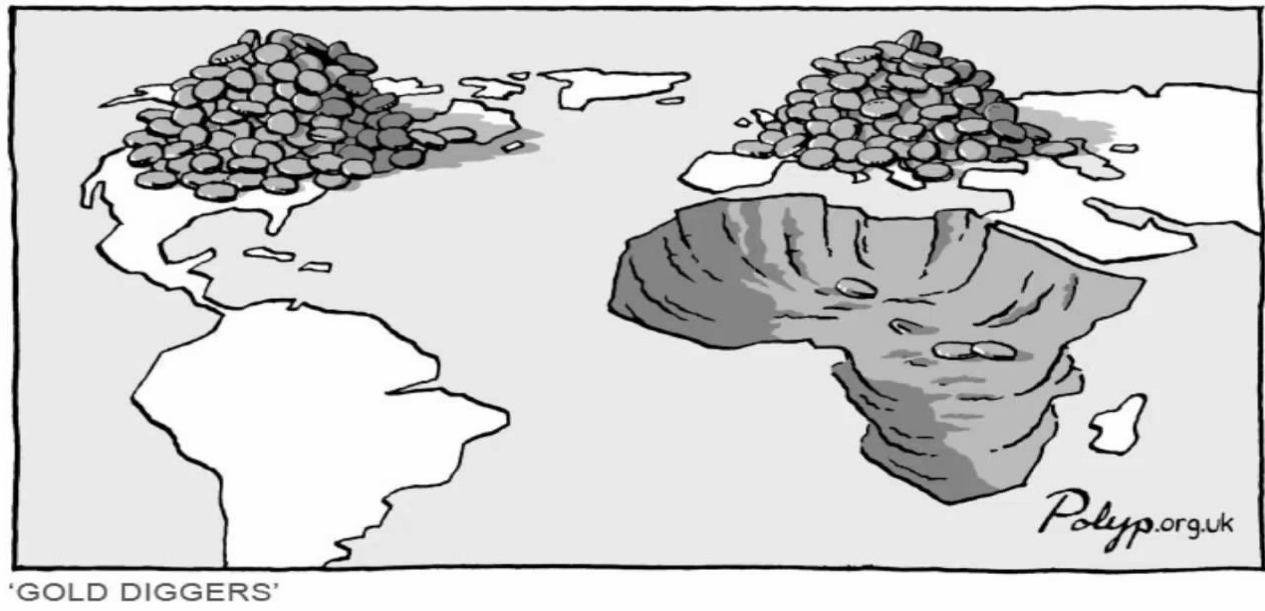
_____ 6. Participate in and take notes on the lesson: The Carbon Cycle and the Cycling of Matter.

_____ 7. Be ready to answer the following question: How does a human population influence food webs and the cycling of matter?

_____ 8. Complete the Lab Activity: The Story of the Great Diamond Hoax.

_____ 9. Begin the Lab Activity: Marble Roll

Integrated Science Study Guide (8th) (Weeks 3, 4, & 5)



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Essential questions:

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Week 3: Due April 21

_____ 10. Complete the Lab Activity: Marble Roll.

_____ 11. Begin the Lab Activity: Climate Change

Week 4: SAGE

Week 5: Due May 5

_____ 12. Complete the Lab Activity: Climate Change.

Integrated Science Study Guide (8th) (Weeks 6 & 7)

HÄGAR the Horrible

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By Dik Browne

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Essential questions:

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- How is balance related to energy?

Week 6: Due May 12

_____ 12. Complete the Lab Activity: Earth's Natural Hazards.

Week 7: Due May 19

_____ 22. Review for and take the unit test.

_____ 24. Watch the in-class documentary film: The Botany of Desire

_____ 25. Complete the reading guide and questions on: The Botany of Desire