

ECOLOGY AND ENERGY POSTERS

- I. Nitrogen Cycle
 - A. Role of nitrogen in the environment
 - B. Outline different forms of the nitrogen cycle
 - C. Sources of nitrogen
 - D. How does nitrogen get transferred from one form to the next
 - E. Human impact on the nitrogen cycle
 - F. Legislation?
 - G. Segment Summary and how it is relevant to your topic

- II. Carbon Cycle
 - A. Role of carbon in the environment
 - B. Outline different forms of the carbon cycle
 - C. Sources of carbon
 - D. How does carbon get transferred from one form to the next
 - E. Human impact on the carbon cycle
 - F. Legislation?
 - G. Segment Summary and how it is relevant to your topic

- III. Phosphorus Cycle
 - A. Role of phosphorus in the environment
 - B. Outline different forms of phosphorus of the phosphorus cycle
 - C. Sources of phosphorus
 - D. How does phosphorus get transferred from one form to the next
 - E. Human impact on the phosphorus cycle
 - F. Legislation?
 - G. Segment Summary and how it is relevant to your topic

- IV. Earth Science
 - A. Describe the different sections of the earth in terms of location, temperature, phase of matter
 - B. How does the earth cycle minerals in the crust?
 - C. Describe plate tectonics. What is it? How do these plates move? What is the effect on evolution of organisms?
 - D. What are minerals? Are minerals a renewable or nonrenewable resource? Explain.
 - E. Describe the biosphere: atmosphere: troposphere vs. stratosphere; Hydrosphere, and Heat: from sun and inner core
 - F. Segment Summary and how it is relevant to your topic

- V. Sulfur Cycle
 - A. Role of sulfur in the environment
 - B. Outline different forms of sulfur of the sulfur cycle
 - C. Sources of sulfur
 - D. How does sulfur get transferred from one form to the next
 - E. Human impact on the sulfur cycle
 - F. Legislation?
 - G. Segment Summary and how it is relevant to your topic

- VI. Water Cycle
 - A. Role of water in the environment
 - B. Outline different forms of water of the water cycle
 - C. Sources of water
 - D. How does water get transferred from one form to the next
 - E. Human impact on the water cycle
 - F. Legislation?
 - G. Segment Summary and how it is relevant to your topic

- VII. Photosynthesis & Cellular Respiration/Fermentation
 - A. What are the reactants and products of each process?
 - B. Where does each process occur? Type of cell? Organelle?
 - C. Importance of each process.
 - D. How do these processes relate to energy?
 - E. Human influence on these processes.
 - F. Segment Summary and how it is relevant to your topic

- VIII. Energy transfer and trophic levels of a food chain
 - A. What is a food web vs. chain?
 - B. What is a trophic level?
 - C. Describe producers, consumers, decomposers and give examples of each
 - D. Define energy and explain the two Laws of Thermodynamics. Include definition and examples of entropy.
 - E. Explain how energy is transferred from one trophic level to the next: 10% rule.
 - F. Segment Summary and how it is relevant to your topic

- IX. Measuring Primary Productivity and Sustainability
 - A. What is Primary Productivity?
 - B. What is net primary productivity?
 - C. What is Gross primary productivity?
 - D. Why is it important?
 - E. What is sustainability?
 - F. What will allow an ecosystem to be sustainable?
 - G. Segment Summary and how it is relevant to your topic

Grading Rubric

ITEM	POINTS POSSIBLE	POINTS EARNED
Complete	5	
Accuracy	5	
Detail	5	
Visual	5	
Clarity in Explanation	5	
Level of Participation	5	
Total	30 pts	