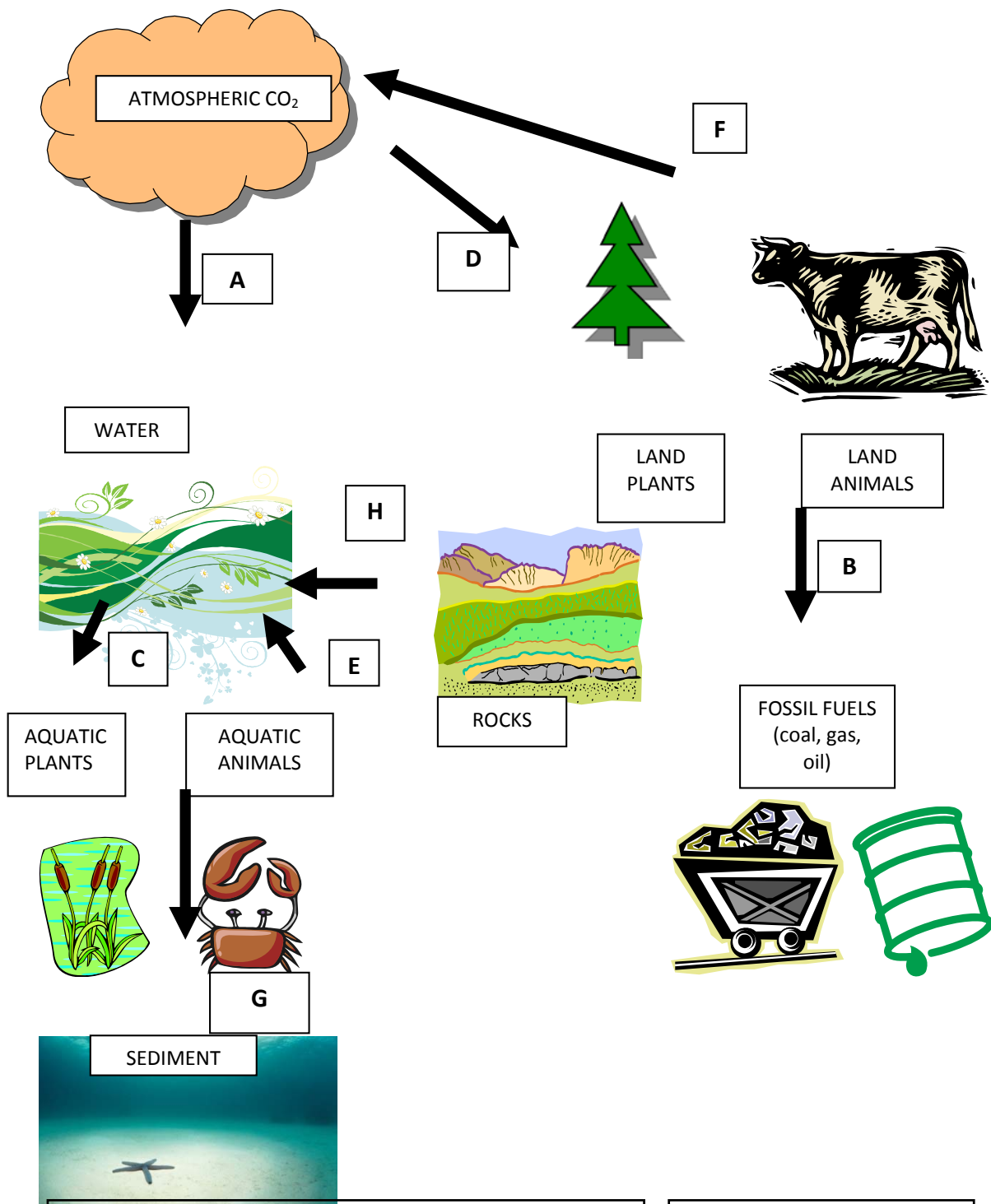


# The CARBON CYCLE



- ARROWS** (place letter in correct box)
- A. Dissolving: CO<sub>2</sub> dissolves in water
  - B. Fossil Fuel Formation: dead plants and animals become coal, oil
  - C. Photosynthesis: aquatic plants make sugar
  - D. Photosynthesis: land plants make sugar
  - E. Respiration: aquatic animals exhale CO<sub>2</sub>
  - F. Respiration: land animals exhale CO<sub>2</sub>
  - G. Sedimentation: dead plants and animals become ocean floor
  - H. Weathering: carbon from rocks dissolves into the ocean

- LABELS** (place label in correct box)
- AQUATIC ANIMALS
  - AQUATIC PLANTS
  - ATMOSPHERIC CO<sub>2</sub>
  - FOSSIL FUELS (coal, gas, oil)
  - LAND ANIMALS
  - LAND PLANTS
  - ROCKS
  - SEDIMENT
  - WATER

Where do the primary consumers (herbivores) get their carbon? **PLANTS and Algae**

What process adds carbon to the atmosphere? **RESPIRATION – Cellular Respiration : Glucose + oxygen → carbon dioxide + water + cellular energy.**

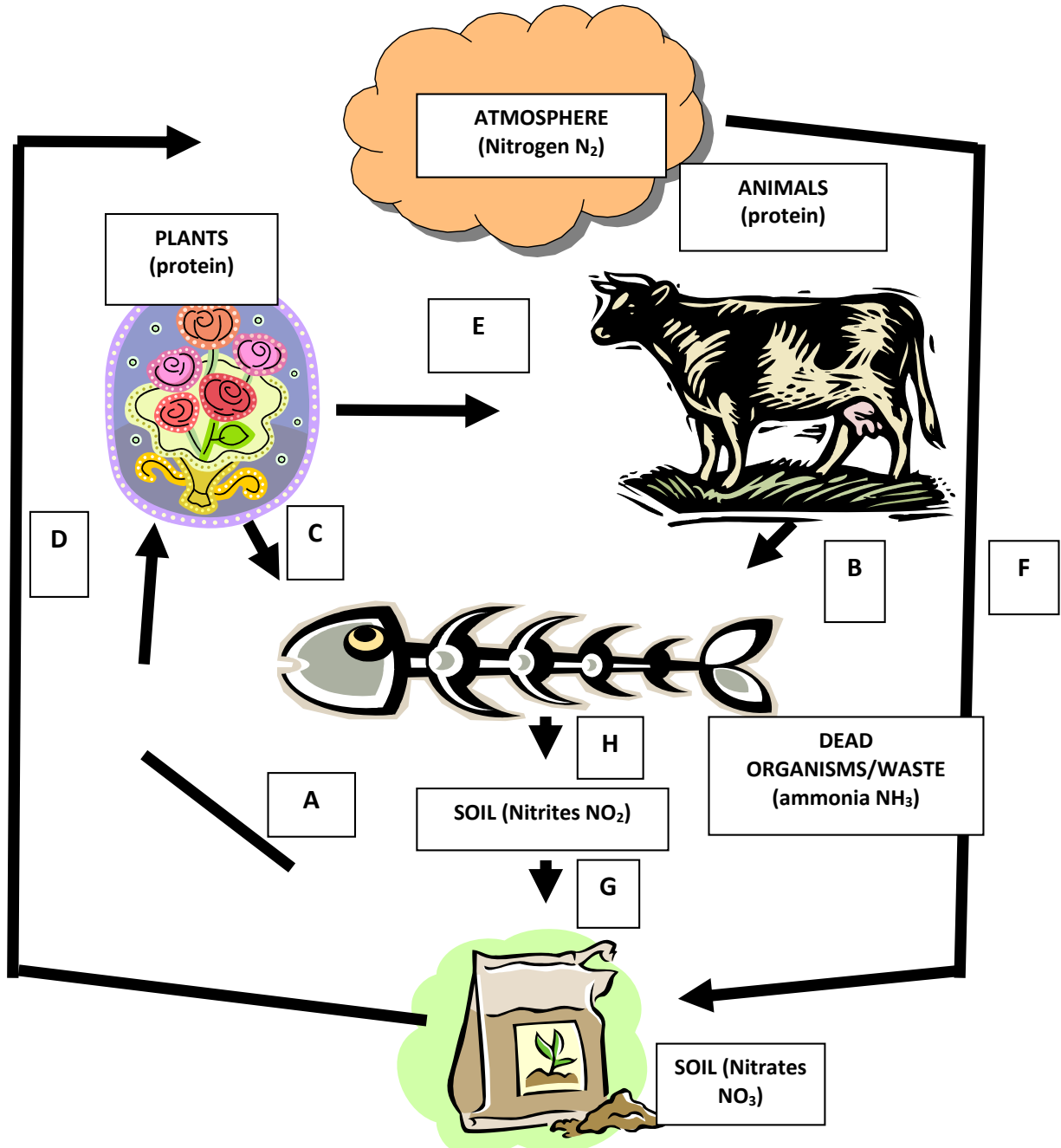
What process removes carbon from the atmosphere? **PHOTOSYNTHESIS: Carbon dioxide + water + sun energy → Glucose + oxygen**

How does oxygen get into the water? **DISSOLVES**

List two ways extra CO<sub>2</sub> is getting into the atmosphere today: **CARS BURNING FOSSIL FUELS**  
**DEFORESTATION**

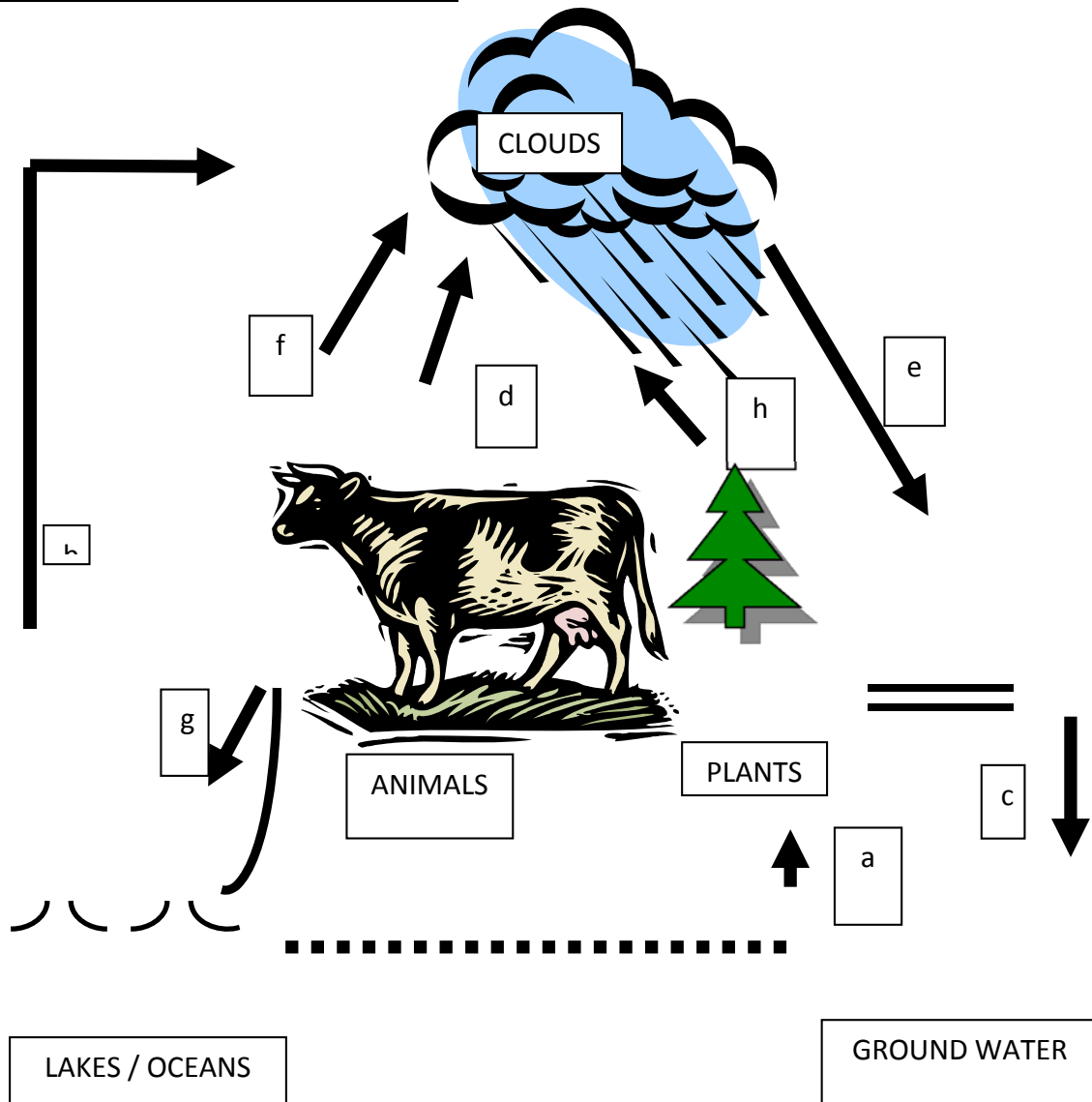
List three things humans can do to reduce CO<sub>2</sub> in the atmosphere: **LESS CARS (OR CLEANER CARS), LESS DEFORESTATION, CLEANER INDUSTRIES**

# The NITROGEN CYCLE



ARROWS	LABELS
A. Absorption: Plants absorb nitrates as nutrients	ANIMALS (protein)
B. Death and Decay: animal dies or urinates ammonia	ATMOSPHERE (Nitrogen $N_2$ )
C. Death and Decay: plant dies	DEAD ORGANISMS/WASTE (ammonia $NH_3$ )
D. Denitrification: bacteria turns nitrates into nitrogen gas	PLANTS (protein)
E. Food Chain: animal eats plants containing proteins	SOIL (Nitrates $NO_3$ )
F. Lightning and Nitrogen Fixing: lightning and bacteria fixed into $NO_3$	SOIL (Nitrites $NO_2$ )
G. Nitrogen Fixing: Bacteria turn nitrites into nitrates	
H. Transformation: Bacteria turns bacteria into nitrites	

# The WATER CYCLE



**WATER TABLE:** area of soil filled with water. This is highest after rainfall, and indicated with a dotted line on the diagram

- ARROWS** (place letter in correct box)
- A. Absorption: Plants absorb water through their roots
  - B. Evaporation: Water vapour evaporates from bodies of water
  - C. Percolation: Water is pulled through the soil by gravity
  - D. Perspiration: Water is lost through the bodies of animals
  - E. Precipitation: Water condenses and falls from clouds
  - F. Respiration: Animals lose water as they breathe
  - G. Runoff/Leaching: Water drains into bodies of water/ dissolved material lost by leaching
  - H. Transpiration: Water is lost through evaporation from plants

- LABELS** (place label in correct box)
- ANIMALS
  - CLOUDS
  - GROUND WATER
  - LAKES/OCEANS
  - PLANTS