

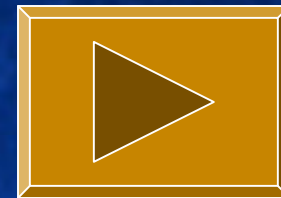
# **Jeopardy: Ecology**

**Chapters 3, 4, and 5**

Populations	Energy Transfer	Biochemical Cycles	Succession	Interactions
<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>
<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>
<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>
<u>800</u>	<u>800</u>	<u>800</u>	<u>800</u>	<u>800</u>
<u>1000</u>	<u>1000</u>	<u>1000</u>	<u>1000</u>	<u>1000</u>
<u>1200</u>	<u>1200</u>	<u>1200</u>	<u>1200</u>	<u>1200</u>

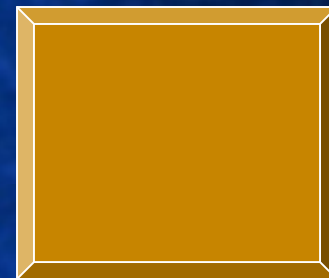
200

**What are the 4 factors that determine population size?**



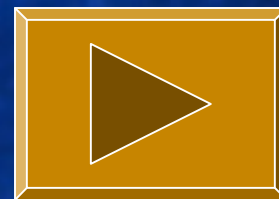
200

1. Births
2. Deaths
3. Immigration
4. Emmigration



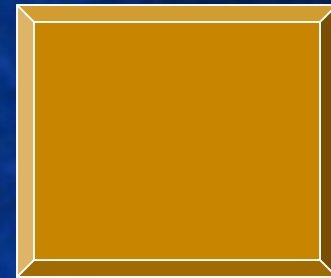
400

To move from one area  
and into another.



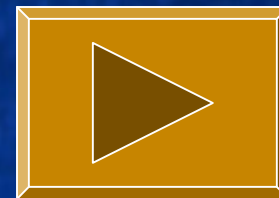
400

# Immigration



600

**The total number of  
organisms in an area.**



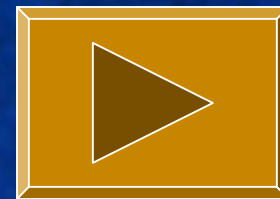
600

**Richness**



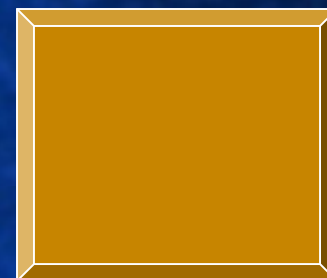
800

**Level of Organization:  
All of the animals and  
plants living in the same  
area.**



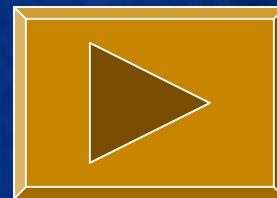
800

**Community**



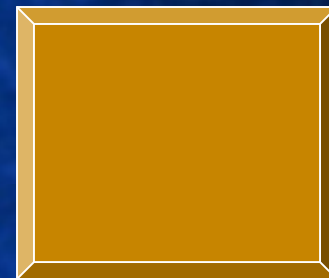
1000

**The non-living part of  
the environment.**



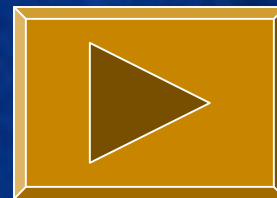
1000

**Abiotic**



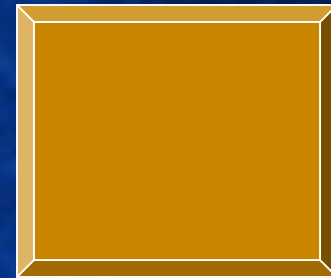
1200

**Give two different names  
for organisms that eat  
other organisms.**



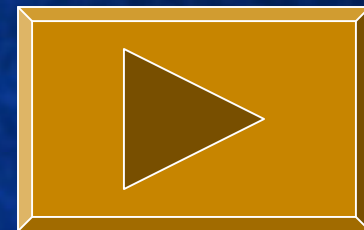
1200

# Consumer and heterotroph



200

**What process uses  
energy from the sun to  
convert CO<sub>2</sub> into  
sugar?**



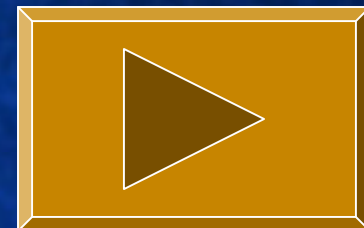
200

# Photosynthesis



400

**What type of organism  
receives energy from  
all other types?**



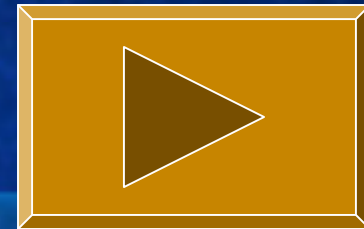
400

# Decomposers



600

**Why are food webs more realistic than food chains?**



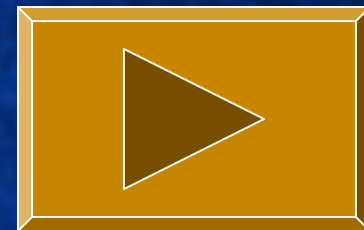
600

**Most organisms eat  
more than one kind of  
food.**



800

**Give an example of a  
primary  
consumer/secondary  
consumer relationship.**



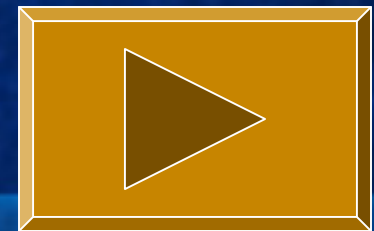
800

1. Mouse eaten by snake
2. Insect eaten by lizard
3. Zebra eaten by lion



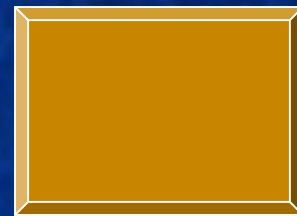
1000

**Suppose that Chris is eaten by a bear on his way home from school. What % of Chris's energy is available to the bear for growth and maintenance?**



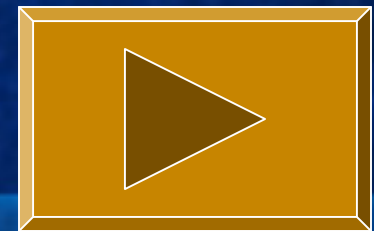
1000

10%



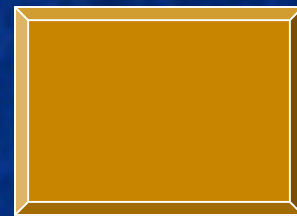
1200

**Suppose that Chris is eaten by a bear on his way home from school. What % of Chris's energy is available to the bear for growth and maintenance?**



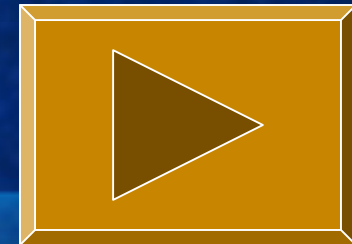
1000

10%



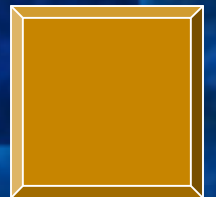
200

**Precipitation and evaporation are key parts of which biochemical cycle.**



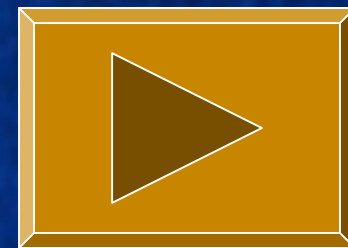
200

# Water Cycle



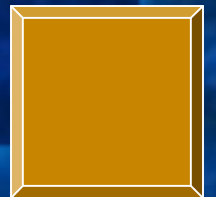
400

**What are the two  
biological processes  
that drive the carbon  
cycle?**



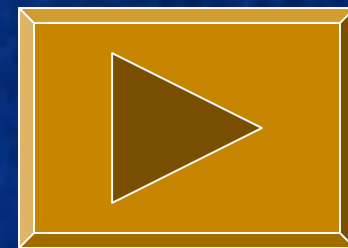
400

# Cellular Respiration and Photosynthesis



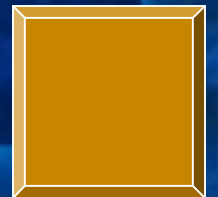
600

Oxygen is recycled  
between  $\text{H}_2\text{O}$  and  $\text{O}_2$   
during which  
biochemical cycle?



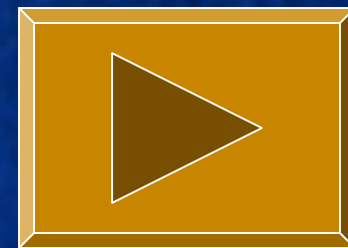
600

# Carbon Cycle



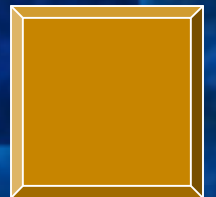
800

The process where bacteria in plant roots convert  $N_2$  gas from the air into a usable form is called \_\_\_\_\_.



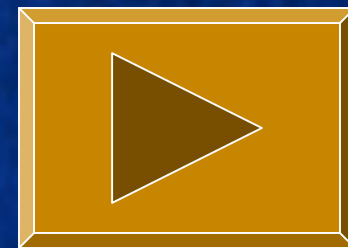
800

# Nitrogen Fixation



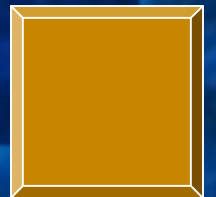
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**The process where  
nitrogen is released to  
the atmosphere as  
nitrogen gas (N<sub>2</sub>)**



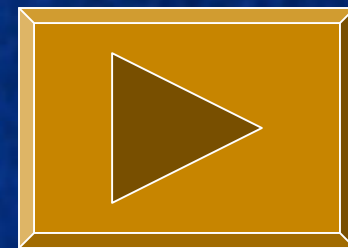
1000

# Denitrification



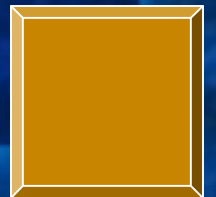
1200

**Which two  
biomolecules contain  
nitrogen.**



1200

# Proteins and DNA



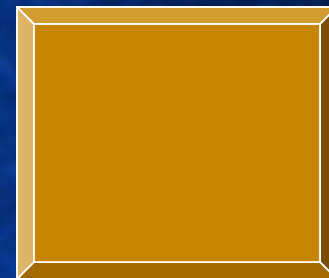
200

**The predictable and orderly change of organisms living in an ecosystem over time.**



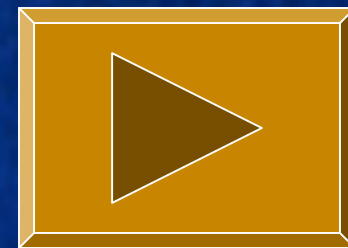
200

# Succession



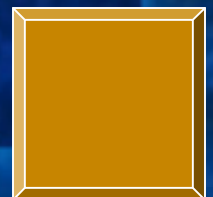
400

**Give an example of  
primary succession.**



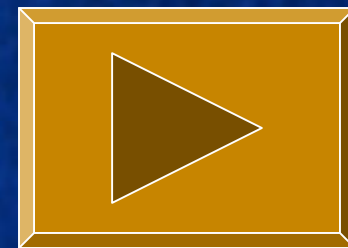
400

**Glaciers retreating**  
**Volcanic eruptions**  
**New islands**



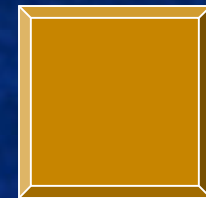
600

**Give an example of secondary succession.**



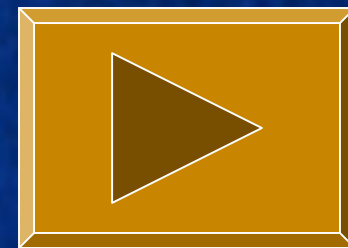
600

**After a fire or logging.  
Abandoned farms**



800

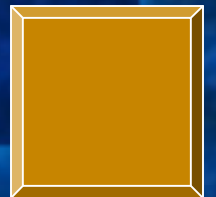
**Which types of organisms are the first to colonize rocks. Provide the general term and an example organism.**



800

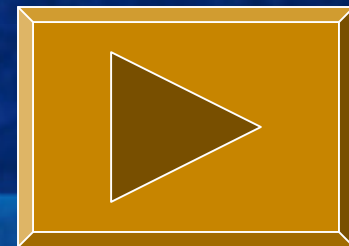
**Pioneer species**

**Lichens**



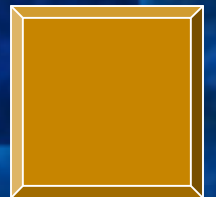
1000

**After a forest fire, a predictable sequence of changes will occur until the forest is replaced. What is this replacement forest called?**



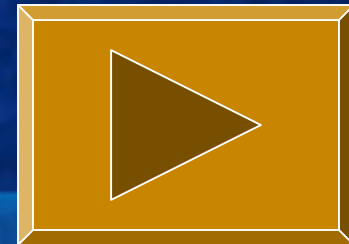
1000

**Climax community**



1200

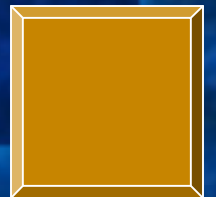
**What is the difference  
between richness and  
evenness?**



1200

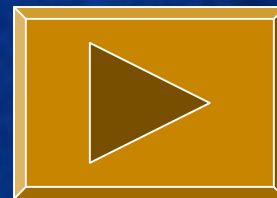
**Richness = # of species**

**Evenness = fraction or  
percent represented by  
each species.**



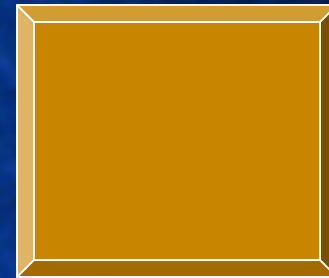
200

**A cow and sheep eating  
the same grass.**



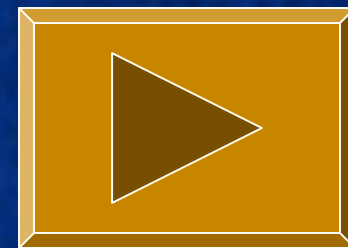
200

# Competition



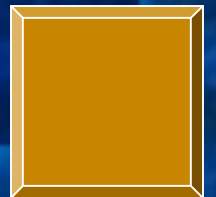
400

**What do we call the organism that is harmed by a parasite?**



400

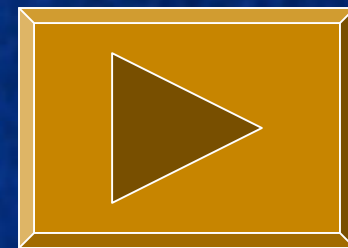
**Host**



600

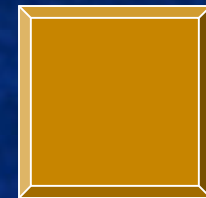
**Barnacles growing on a whale is an example of**

\_\_\_\_\_.



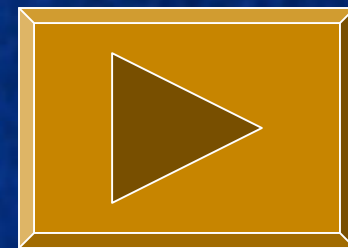
600

**Commensalism.**



800

**Give an example of a mutualism.**



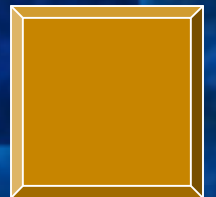
800

**Ants and aphids**

**Algae + Fungus = Lichen**

**Ants and Acacia trees**

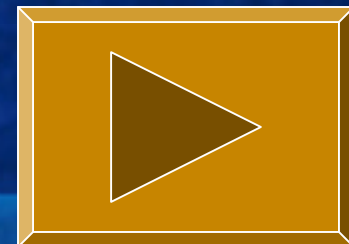
**Humans and cows**



1000

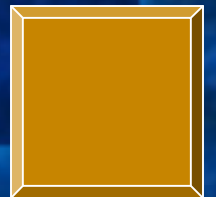
**Two species with identical niches cannot exist in the same area because of the**

\_\_\_\_\_ .



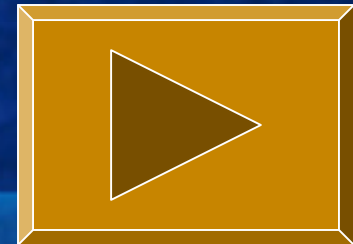
1000

# Competitive Exclusion Principle.



1200

**What happened to the  
intertidal community when  
all the star fish were  
removed?**



1200

**Mussels took over and  
diversity declined.**

