ECOSYSTEM ECOLOGY

Chad King / MBNMS
LEVELS OF ECOLOGY

- Population
- Community
- Ecosystem = the organisms that exist and interact in an area and their environment
ECOSYSTEM ECOLOGY

- Energy flows
- Nutrients cycle

LadyofHats Wikimedia
HEAT ENERGY PYRAMID

1,000,000 J of sunlight

10,000 J

1,000 J

10 J

Producers

Primary Consumers

Secondary Consumers

Tertiary Consumers

HEAT
ACTIVITY

Create an energy pyramid for the kelp forest ecosystem
ECOSYSTEM ECOLOGY

- Energy flows
- Nutrients cycle
**Animals**

**CARBON CYCLE**

http://earthobservatory.nasa.gov/Features/CarbonCycle/
NITROGEN CYCLE

1. Assimilation
2. Ammonification
3. Nitrification
4. Animals
5. Nitrates \( (NO_3^-) \)

Johann Dréo (Wikimedia)
WATER CYCLE