



Producers - Ecology LT2

Define primary producers (autotrophs)

MTS: I can identify a primary producer (autotroph).

ADV: I can describe the role of primary producers (autotrophs) in the environment.

MAS: I can demonstrate an understanding of what would occur if primary producers (autotrophs) in an environment are absent or severely reduced.

Biology A
Mr. Sapora
Ecology
Notes 2

<http://www.ck12.org/user:c2lza2l5b3VraWRAZ21haWwuY29t/book/THS-Bio-A/r22/section/3.0/>

Lecture Notes

1. **Life** - what is it? Technically people have defined it as: *the condition that distinguishes organisms from inorganic objects or dead organisms; or a characteristic that distinguishes objects that have signaling and self-sustaining processes from those that do not.* (online dictionary and wikipedia "life")

2. There are several characteristics that biologists use to define life:

_____, _____,
_____, _____,
_____, _____.

3. Three main types of cells are: _____, _____, _____.

Reading Notes

4. _____ is the ability to do work. In what ways to organisms do this "work"?

5. Organisms that get their energy directly from the sun are called _____,
which means _____.

6. _____ is constantly flowing through a _____.

7. Then energy of the _____ is first captured by _____.

8. Many producers make their own food through a process called _____.

The "food" the producers make is the _____, _____.

The Producers - Ecology Notes 2

9. _____ make food for the rest of the _____.
10. What are the three groups of organisms that produce energy and are responsible for the start of this life-giving energy transformation?
_____, _____, and _____.
11. The _____, as autotrophs are also known, begin food chains which _____ all _____.
12. The _____ of every ecosystem is _____ on producers. Without producers capturing the _____ from the _____ and turning it into _____, an _____ could not exist.
13. _____, tiny photosynthetic organisms, are the most common _____ in the _____ and _____.
14. Chemosynthesis is what process and what is type of organisms uses this process?

Follow-up Questions

Where does all the energy in an ecosystem ultimately come from?

What are some examples of producers?

Why are producers called autotrophs?

What process do producers use to turn sunlight, water, and carbon-dioxide into “food”?

Advanced to Mastery Concerns!

- Be able to discuss the role that producers play in an ecosystem in detail and provide examples.
- Have a look at the terrarium in Mr. Sapora's room where Stitch lives - be able to identify where the energy that powers and sustains this mini-ecosystem comes from (ultimately) and begins (who are the primary producers here). What would happen if these producers were removed from the system?