

Cycles of Nature Exam Study Guide

Answer the following questions in the space provided.

1. What occurs when the sun's heat changes water from a liquid to a gas?

EVAPORATION

2. What occurs when precipitation collects on the Earth's surface?

RUN-OFF

3. What occurs when water vapor cools off and collects into larger droplets?

CONDENSATION

4. What occurs when water droplets become too heavy and fall to the ground in the form of rain, snow, sleet or hail?

PRECIPITATION

5. Which events put carbon dioxide into the atmosphere during the carbon cycle?

COMBUSTION

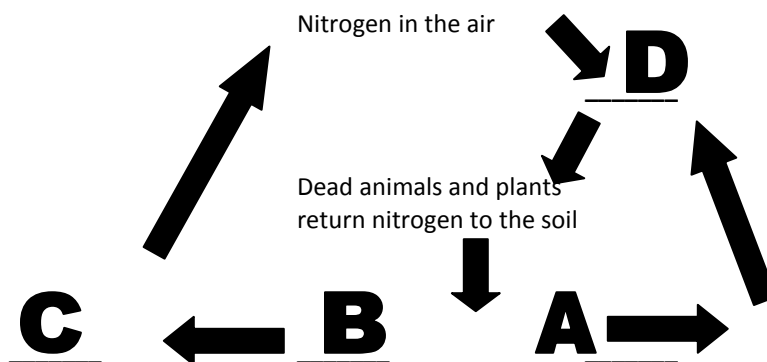
RESPIRATION

6. Which event in the carbon cycle returns oxygen to the atmosphere?

PHOTOSYNTHESIS

7. Place the following events in the correct location on the nitrogen cycle below. Write the letter of the description on the space provided.

- A. bacteria changes nitrogen into a form that can be absorbed by plants
- B. decomposers release nitrogen into the soil
- C. bacteria changes nitrogen into a gas that is released to the atmosphere
- D. animals get nitrogen from plants



8. What is succession?

Succession-the replacement of one type of community by another at a single place over a period of time.

9. Where does succession occur?

- Takes place in areas where there is little to no soil. Generally these are areas that have never supported communities of living organisms (plants or animals)
- In places where soil was already present; areas that have supported living things in the past or are presently home to some species.

10. Is succession predictable? Why?

YES- Initial colonization and disturbances lead to succession.

11. What is primary succession?

When a community starts to develop in an area where other organisms had not previously lived.

12. Where does primary succession occur?

Takes place in areas where there is little to no soil. Generally these are areas that have never supported communities of living organisms (plants or animals)

- **Sand Dunes**
- **Rock Outcrops**
- **Glacial Till (unsettle glacial settlement)**
- **Lava flows**

13. What is the first organism to grow in an area called?

PIONEER SPECIES

14. Put the following examples of steps in primary succession in the correct order. Write the letter of the step on the line provided.

A. Moss replaces lichen. The amount of soil increases.

B. The soil is deep enough to support a forest.

C. Bare rocks exist and nothing lives in the area.

D. Ferns replace moss. Grasses and wildflowers replace ferns. Small trees and shrubs begin.

E. Lichen begins to grow on the rocks. Lichen helps soil start to form.

C → **E** → **A** → **B** → **D**

15. What is secondary succession?

when an existing community is destroyed by a natural disaster; the original community may regrow

16. Where does secondary succession occur?

In places where soil was already present; areas that have supported living things in the past or are presently home to some species.

- **Burned out forest**
- **Cut-over land**
- **Abandoned farm fields**
- **Dried up ponds**

17. Does secondary succession always follow a disturbance?

NO

18. What is usually the first type of organism to grow during secondary succession?

Mosses and Lichens

19. Explain one difference between primary succession and secondary succession.

Succession

