Name: _____ Date: _____

Life Science Period: _____

Section 3.2: *Most mosses and ferns live in moist environments.*

Read pages C92-97 and complete the following outline.

Plant species adapted to life on land.
(Pg. C92)

Green Algae

1. Life first appeared on Earth _____ billion years ago.
2. The first organisms to live on land were the ancestors of _____.
3. The first land plants looked like _____.

The first plants.
(Pg. C93)

1. The first land plants wound up on land because:
   a. the pond waters became _____
   b. the pond _____ due to drought
   c. Some organisms were left on the shore and survived life on land.
2. The first land plants needed to be able to obtain _____ and _____ from the land.
3. Advantages to life on land:
   a. Plenty of _____
   b. Plenty of _____

Mosses and ferns.
(Pg. C93)

1. Mosses and ferns evolved from _____ that lived in the sea and fresh water.
2. _____ are descended from the first plants to inhabit land on bare rock.

Mosses and nonvascular plants.
(Pg. C94)

Moss growing on a rock.

1. Mosses are adapted to life on land:
    a. Have simple _____.
    b. Cells have areas for _____.
    c. Is supported by a thick _____.
2. Mosses are nonvascular, meaning that they do not have _____.
3. Water and nutrients travel through a moss _____ by _____. Because of this, a moss can only be _____ thick.
4. Since they are plants, mosses have a two part life cycle.
    a. First part: _____ and _____ structures produced for _____ reproduction.
    b. Second part: _____ are produced.

Mosses reproduce with spores.
(Pg. C95)

A moss' stalk and capsule.

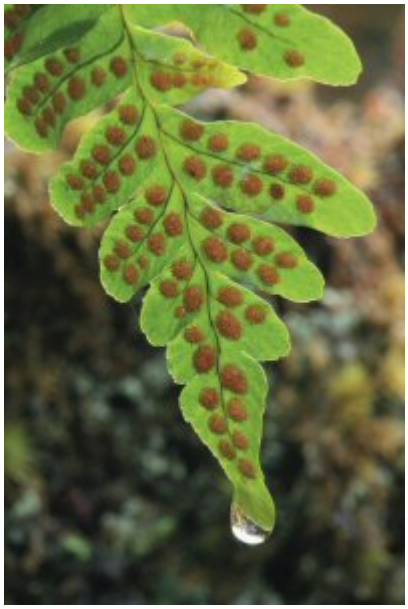
1. A spore is a _____
2. First generation:
    a. Have grown from _____.
    b. Moss clumps contain both _____ and _____ reproductive structures.
    c. Structures produce _____ and _____.
    d. For the sperm to fertilize the egg, _____ must be present.
3. Second generation:
    a. Fertilized egg grows into a _____ with _____
    b. The capsule contains thousands of _____.
    c. The spores are released, starting the first generation all over again.

Ferns are vascular plants.
(Pg. C96)

Woman with large ferns.

1. Ferns were the first plants with _____.
2. A vascular system allows:
    a. The roots of a plant to _____
    b. More efficient movement of _____
    c. Extra _____
    d. A need for more _____

Ferns reproduce with spores.
(Pg. C97)



Fern frond with clusters of spores.

1. The leaves of ferns are called _____.
2. Ferns have a two-part life cycle, too.
3. First generation:
    a. Spores grow into **tiny** structures that produce _____ and _____ cells.
    b. The sperm need _____ to fertilize the egg.
4. Second generation:
    a. Fertilized egg produces a plant with _____.
    b. The **large** fronds produce structures on which _____ are produced.
    c. The spores are released and can potentially grow into a new fern plant, starting the first generation all over again.