

## Class IX

### EXPERIMENT No: 6

**AIM:** To study the characteristic of Spirogyra/Agaricus, Moss/Fern, Pinus (either with male or female cone) and an Angiosperm plant. Draw and give two identifying features of groups they belong to.

**Material Required :** Permanent slides of Spirogyra, specimen of Agaricus, moss, fern, Pinus and an angiosperm like petunia, balsam, Amaranthus and a compound microscope.

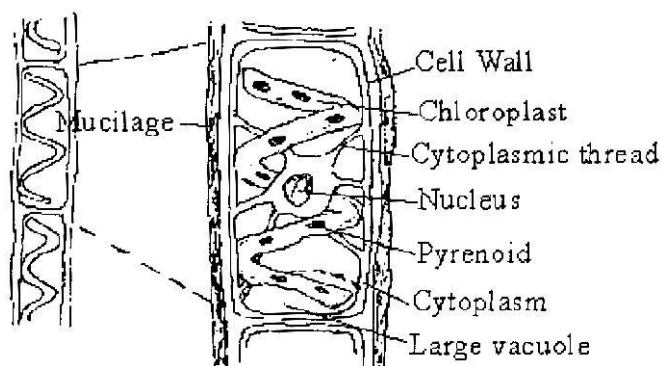
#### Procedure :

1. Observe the permanent slide of Spirogyra under low power of compound and record your observation. Draw the diagram of Spirogyra and label the parts.
2. Observe and record the characters of Agaricus, Moss, Fern, Pinus and any one angiosperm plant. Draw their diagrams.

#### Observation :

##### Spirogyra :

1. The plant body is unbranched and made up of cylindrical cells placed one above the other.
2. Cells are longer with one or two spiral ribbon shaped chloroplasts.
3. Each cell has a single nucleus and a vacuole.

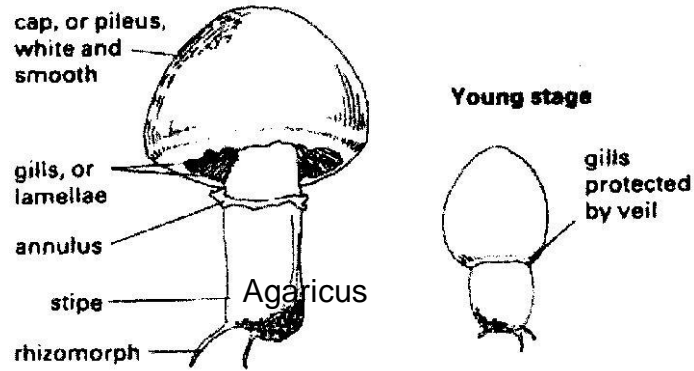


Spirogyra

##### Agaricus : [www.jsuniltutorial.weebly.com/](http://www.jsuniltutorial.weebly.com/)

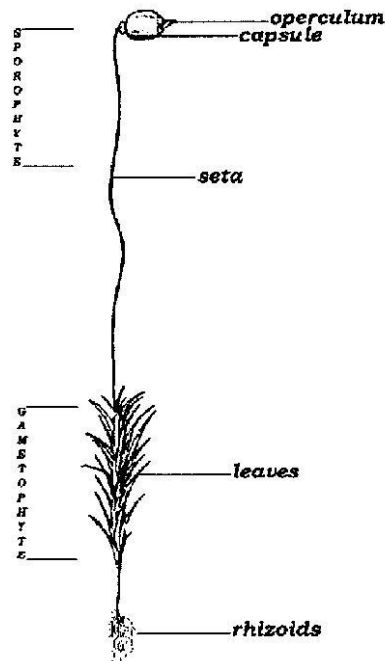
1. A mature body divided into a stalk and an umbrella like cap called pileus.
2. A ring like membranous structure is attached at base of the stalk.

- The cap on its lower side has gills bear spores.



**Moss :**

- It is about three to five cms long, differentiated into central axis, leaves, and root like structure.
- The central axis is erect, branched or unbranched.
- Tiny flat green leaves are arranged spirally on the stem.

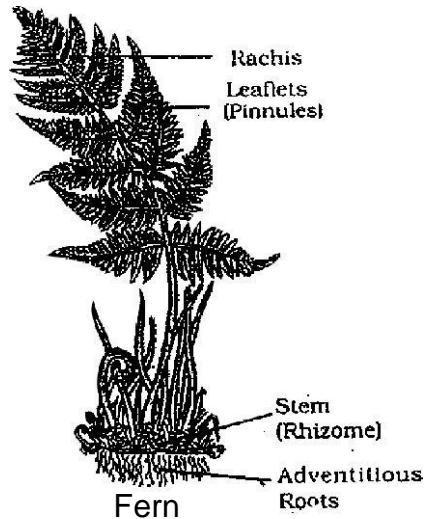


(Moss basic structures)

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**Fern :**

1. Plant body is well differentiated into root, stem and leaves.
2. Stem is short, and underground.
3. Leaflets are small arranged on either side of the rachis.
4. Clusters of adventitious roots arise from the underside of stem near each node.



### Pinus :

1. Pinus is a tree with stem, leaves and roots.
2. Stem is hard and woody.
3. It has branches bearing scaly and needle like leaves and cones.
4. Male and female cones are reproductive organs.



Pinus

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