

## Lichen or Not

Lichens can be found almost anywhere. They do not need soil, only something to attach to. Look for lichens on rocks, tree trunks, branches, rocks or even buildings. Try to find the three forms of lichen, moss, and fungus which all grow where lichens are found.

### **LEARNER OBJECTIVES:**

- 1) Identify the difference between lichen, moss: green plant, and fungus: tan or gray
- 2) describe the three different growth forms of lichen,
- 3) look at lichen the growth forms grow on your area,
- 3) describe how lichens can be monitored over time,

### **ENVIRONMENTAL HEALTH QUESTION:**

Lichens live a really long time. How can scientist use them to study the earth and environment?

### **WHAT IS A LICHEN?**

Lichen is a type of living thing that can live in almost any place on the earth. They are not plants, animals, fungus, but something else with both algae and fungus together. They need the air, little water, a few minerals — all of which they get from the air. Lichens also need a tree, rock, building, or other thing to grow on. They produce their own energy from the sun through photosynthesis. Lichens have three shapes or growth forms, and they can live a very long time — some are over 1,000 years old. The places lichen grow may also have moss or fungus growing on them.

### **WHAT IS MOSS?**

Moss is a plant, but it does not have roots, or flowers. It still makes energy from the sun, but the water is absorbed through the leaf like parts.

### **WHAT IS A FUNGUS?**

Fungus is a life form that absorbs all its food from the environment. It does not need the sun, only something with food and minerals to grow on. It also does not have flowers, but rather spores.

## Three Forms of Lichen



**Crustose** (“Crusty”) lichens form a “crust” on the surface.



**Foliose** (“Leafy”) lichens that have two sides.



**Fruticose** (“Bushy”) lichens are three dimensional and grow away from the surface.

## Fungus and Moss



**Shelf Fungus** Fungus is usually tan, brown or gray.



**Mushroom** Mushrooms are a type of fungus, and like fungus tan, brown, or gray.



**Moss** is green and bush like and makes energy from the air and sun.

### Lichen or Not Instructions

1. Preliminary Research: Watch the video Lichens Grow Everywhere:

<https://www.youtube.com/watch?v=GmvZrwYY9GQ&feature=youtu.be>

2. Go outside and find a Lichen, and take a picture of it.

- Make sure the photograph includes the edge of the lichen.
- Record what the lichen is growing on
- Record the other things growing with the lichen including:
  - moss, fungus, plants, other lichens.
- Estimate how much the sun the lichen receives
- Record if it is near a river or stream.

3. Use this link to record your observation: <https://arccg.is/1aSiCH1>

4. Check your observation at the NC Streamwatch Page:

<https://ncdenr.maps.arcgis.com/apps/opdsdashboard/index.html#/7f6fe319f2b3407bbcaf7d5f49401644>