



Outdoor Hour Challenge

Flowerless Plant Challenges #41-#43

Ferns-Mushrooms

Moss-Lichens-Molds-Puffballs-Morels



## **Outdoor Hour Challenge #41** **Flowerless plants-General Overview**

**1. This week you need to familiarize yourself with the section in the *Handbook of Nature Study* that discusses flowerless plants.** Turn to the table of contents and in Part III, go to the list of flowerless plants and skim down the list of topics covered. The suggested readings for this challenge will be in the following categories:

**Ferns**-read the overview on page 693 and then turn to page 695 to see the parts of a fern labeled. Pages 704 and 705 show photos of several kinds of ferns.

**Mushrooms and Other Fungi**-read the overview starting on page 714 and continuing to page 719. Page 719 shows the parts of a mushroom with labels.

**2. The ideal study of ferns, mushrooms, and fungi would be to experience them outdoors in their natural habitat. Use your 15 to 20 minutes of outdoor time this week to enjoy a search for a fern or some kind of mushroom.** Your particular area may not have these subjects readily at hand but let your friends, family, and neighbors know that you are studying ferns and mushrooms and with more pairs of eyes looking you may be able to find something to study up close. Enjoy your time outdoors whether you can find this week's subject or not. Remember to look at the sky and comment on the weather. Take time to notice your tree from your year long tree study. Collect a few items to take inside to sketch into your nature journal. Just because the topic of this challenge is flowerless plants, you do not have to limit yourself to that narrow focus during your 15 to 20 minutes of outdoor time.

**3. Spend a few minutes once inside to discuss your experiences you had on your nature walk.** Are there questions that need to be answered or items that need to be identified? Make a note of any topics that come up that you can research further in the *Handbook of Nature Study* or at your local library.

**4. Make an opportunity for a nature journal entry.** Start a list of flowerless plants in your nature journal. The diagrams on pages 695 and 719 could be sketched into the nature journal as well.

"Since mushrooms are especially good subjects for watercolor and pencil studies, it would add much to the interest of the work if each pupil, or the school as a whole, should make a portfolio of sketches of all the species found. With each drawing there should be made on a supplementary sheet a spore print of the species."

*Handbook of Nature Study*, page 718

**5. Use Mr. Linky to share your blog entry for this challenge.** All the challenges are listed on the sidebar of the Handbook of Nature Study blog.

## **Outdoor Hour Challenge #42**

### **Flowerless Plants-Moss and Lichens**

#### **1. Read about mosses on pages 709-714 of the *Handbook of Nature Study*.**

The information on mosses is limited in the book so I found a link about moss for you to preview and then share if you would like with your children. View: Life Cycle of Moss (animated and narrated)

<http://www.sumanasinc.com/webcontent/animations/content/moss.html>

There is also information in the *Handbook of Nature Study* on lichen which I think we should study along with moss. Or you can try these links for a simple, child-friendly explanation and some photos:

Crustose Lichen (crusty) <http://www.backyardnature.net/lichen-1.htm>

Fruticose Lichen (bushy) <http://www.backyardnature.net/lichen-3.htm>

Foliose Lichen (leafy) <http://www.backyardnature.net/lichen-2.htm>

Use the descriptions and photos on pages 712 and 713 of the *Handbook of Nature Study* to see if you recognize any mosses that you have locally. Make sure to pay attention to the diagram on page 710 that labels the different parts of the hair-cap moss so when you are outdoors you can look for the spore capsules and stalks.

**2. Find 15 minutes to take a walk outdoors and look for some mosses or lichens.** Mosses are found in all habitats and if you look hard enough you might be surprised where you find moss growing. Look in sidewalk cracks, along the edges of buildings, and on stones in the garden. Lichen will be found on tree trunks or branches or on rock faces. Bring a hand lens along with you on your walk and use it to examine any moss or lichen you find. See if you can find the spore capsules and the places where the spores sift out. Children will want to touch the moss to observe how soft it feels. If possible, use a few minutes to compare samples of mosses and lichens. If you don't find any moss or lichen, use your observation skills to find something new to look at during your fifteen minutes of the Outdoor Hour.

**3. If you are able, try sketching any moss or lichens that you find during this challenge while you are in the field.** If you are limited in your time outdoors due to weather conditions, decide if you can bring a small amount of moss or lichen indoors to put on your nature table or in a terrarium. Use this sample and a hand lens to draw a sketch into your nature journal. Make sure to observe how it feels and smells as well as how it looks and record these thoughts in your nature journal as well. If you were not able to find any moss or lichen for this challenge, keep your eyes open as the seasons progress and perhaps you will find some moss to draw in the future. If your child is very young, skip the nature journal this week and have a discussion about what you saw during your Outdoor Hour time.

**4. Update your list of mushrooms and ferns if you discovered any new kinds during this challenge. Start a list of mosses and lichens if you wish.** You can document each item with a photo for later identification if necessary.

**5. After you finish your challenge, make sure to share your link on Mr. Linky.** All the challenges are listed in the sidebar of the *Handbook of Nature Study* blog. Please be sure to link to the specific blog entry for this challenge.

## **Outdoor Hour Challenge #43**

### **Molds, Puffballs, and Morels**

**1. Read pages 727-729 in the *Handbook of Nature Study*.** Included in the reading are instructions for growing your own mold on bread so you will have some mold of your own to observe. I highly recommend this activity and your children will be amazed at the results. Although some might find mold repulsive, try to keep a positive outlook as you grow and then observe your very own mold.

**2. Read pages 720-725 in the *Handbook of Nature Study* and learn about puffballs and bracket fungi. Read pages 726-727 in the *Handbook of Nature Study* about Morels.** You can underline and highlight any sections you find in these pages that you find interesting. File away the facts until you come across some of these interesting subjects during your nature study.

**3. Do your best to spend 10-15 minutes outdoors this week with your children.** View this time as the opportunity to enjoy whatever you have available for nature study this week. If you find some mushrooms, ferns, moss, lichen, mold, bracket fungus, morels, or puffballs, you are equipped to observe these subjects more closely.

**4. After your outdoor time, spend a few minutes reviewing your outdoor experience.** This step will help you identify any additional interests your children have so you can answer any questions or help identify any objects they observed outdoors. Are they curious about clouds or a bird they saw? Did you find any flowerless plants at all during your outdoor time? Use this time to follow up with the *Handbook of Nature Study* and don't forget that you can look things up in the index.

**5. Give an opportunity for a nature journal entry or provide a notebook page to complete together.** Remember that a nature journal should be the child's expression of something they found interesting during their outdoor time. You are helping them make a memory.

**6. Make your blog entry and then share your entry on Mr. Linky.** Everyone is always interested in seeing how other families accomplish their Outdoor Hour Challenge. You will find all the challenges listed on the sidebar of the *Handbook of Nature Study* blog.