

# Fields of Fungi Mini Field Guide

## OBJECTIVE

- To familiarize students with the major groups of fungi

## BACKGROUND INFORMATION

Field guides are essential tools to any naturalist interested in identifying local species. They generally provide information about the distribution, **habitat**, distinguishing features, common and scientific names, and size of species. Exposing students to field guides will show them the diversity of fungi and the colour plates may spark an interest to "get to know" some of their local fungal friends.

## TEACHER INSTRUCTIONS

1. Make single-sided copies of pages 74-82 for each student.
2. Talk to your students about the value of field guides to the scientist and naturalist.
3. Tell them they are going to make their own field guides then hand out the pages and have the students cut them out. Fold the page in half so that the mushroom is on one side and the text is on the other. Stack the pages according to page number.
4. Using a heavy duty stapler, staple the guide together with 2 staples on the top seam.
5. The distinguishing features of many of the fungi in this mini guide have been highlighted. Using a combination of posters, an assortment of field guides and the text provided next to the drawings, have the students colour in the drawings of the fungi. Remind them that there can be a great deal of variation in colour from mushroom to mushroom, even withing the same species, so there is no right or wrong way to colour.
6. Ask them which fungi they are already familiar with and where they may have seen these mushrooms. Remind them that the place where mushrooms grow is called their **habitat**.
7. Take notice that some of the information provided in the field guide would be useful to help answer questions raised through activities in the educator's guide, and you may wish to encourage your students to use their field guides for this purpose.
8. Recommend your students take the field guides with them if they go on a foray.

## EXTENSIONS

1. Have students choose a group and then research some of the species in the group and then present some interesting facts to the class.

## Activity 4.4



### GRADES

3-6

### TYPE OF ACTIVITY

Colouring and Assembly of a Mini Field Guide

### MATERIALS

- copies of pages 74-82
- scissors
- pencil crayons, crayons or markers
- assortment of field guides for mushrooms of North America (see sources)
- heavy duty stapler
- mushroom posters (optional)

### VOCABULARY

habitat

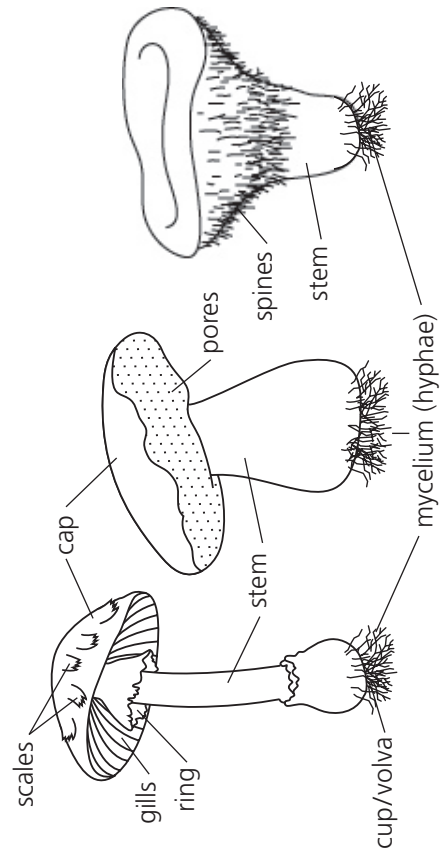
# Fields of Fungi

MINI FIELD GUIDE



## GILLS, PORES, OR TEETH?

A review of shroomy terminology



## The Golden Rules of Mushroom Hunting

1. **NEVER** eat a fungus unless you are absolutely sure that it is safe. Get help from an expert and...

### IF IN DOUBT, DON'T EAT IT!

There's no quick and easy test to show if a mushroom is poisonous.

2. **ALWAYS** wash your hands after touching fungi.
3. **NEVER** go onto someone's property without getting permission first.
4. Watch out for **POISON IVY**. Remember, leaves be three, let it be - or it could ruin your day.

## Agarics "The Gilled"

### WHAT DO THEY LOOK LIKE?

They have a **cap** and **stem** with **gills** underneath the cap.

### WHERE ARE THEY FOUND?

Anywhere and everywhere!

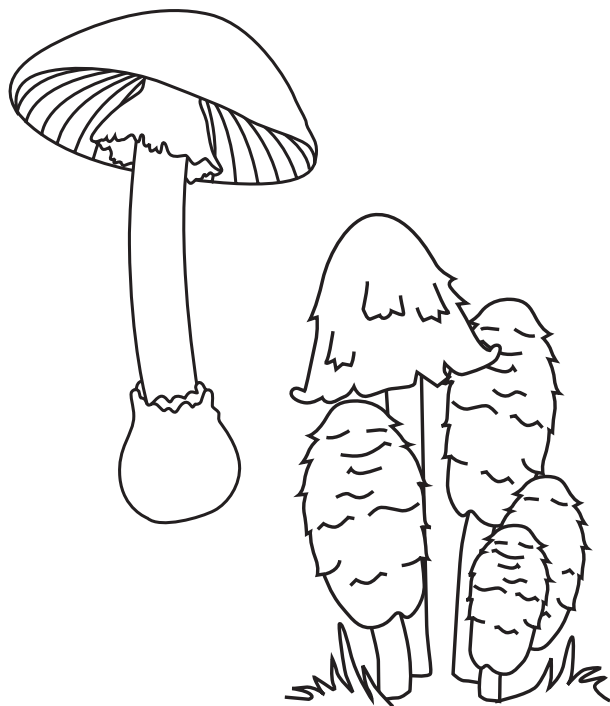
### FUN FACTS

- Most commonly thought of as "mushrooms"
- 4000 species
- Found on all continents except Antarctica
- The deadly Destroying Angel mushroom is from this group as is the glow-in-the-dark Jack o' Lantern mushroom!
- A single mushroom may produce as many as 10,000 million spores!

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**Shaggy Mane**

## **Boletes "The Pored"**

### **WHAT DO THEY LOOK LIKE?**

They have a **cap** and **stem** with **pores** underneath the cap; these mushrooms look "spongy".

### **WHERE ARE THEY FOUND?**

These mushrooms are usually found growing on the ground but sometimes grow on wood. They are also **mycorrhizal**; see if you can find the tree they are partners with.

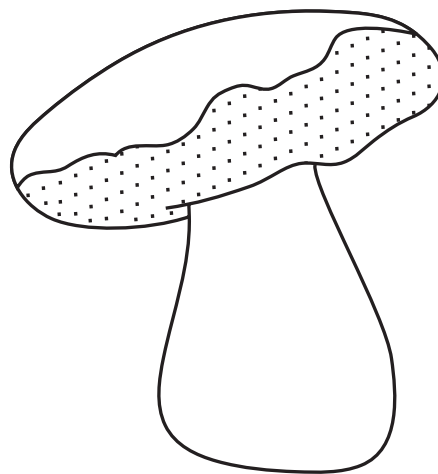
### **FUN FACTS**

- One bolete called the Devil's Bolete, turns from a creamy colour to bright sky-blue if you cut its flesh. The man who discovered this mushroom said that after he had smelled it, he was sick for days, so he thought it must have been created by the devil.

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## **Chanterelles**

### **WHAT DO THEY LOOK LIKE?**

These mushrooms are vase or trumpet-shaped with **ridges** that start under the **cap** and go down the **stem**.

### **WHERE ARE THEY FOUND?**

These mushrooms are also **mycorrhizal**; see if you can find the tree they are partners with.

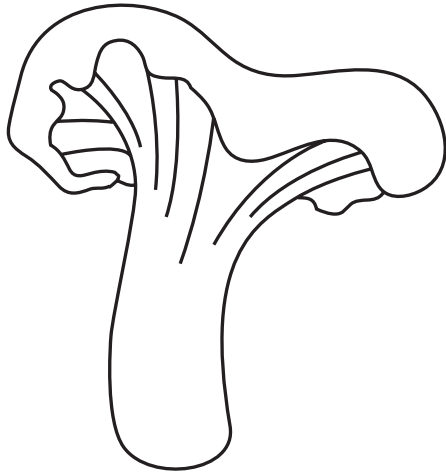
### **FUN FACTS**

- The chanterelle is prized for its wonderful smell, which most people describe as "fruity and like apricots."
- Some people even make a chanterelle sorbet as a dessert!

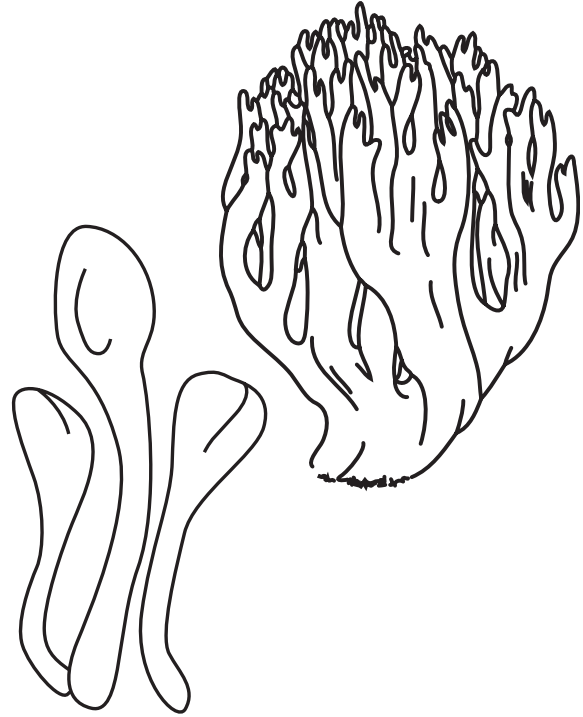
**3**

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**Coral fungi**



**Club fungi**

## Club & Coral Fungi

### WHAT DO THEY LOOK LIKE?

**Coral fungi** are usually branched and really do look like marine coral! They can be white, yellow, orange, red, purple, or tan.

**Club fungi** are finger-like or club-shaped and can be almost any colour as well.

### WHERE ARE THEY FOUND?

They are found on the forest floor, on twigs, or on well decayed logs.

### FUN FACTS

- Some coral fungi can be up to 20kg in weight.

## Teeth Fungi

### WHAT DO THEY LOOK LIKE?

These fungi have a **cap** and **stem** with “teeth” or **spines** that hang like icicles.

### WHERE ARE THEY FOUND?

Teeth fungi can grow either on wood or on the ground.

### FUN FACTS

- Some teeth fungi are edible and can be found for sale in Chinese markets.
- Some of these mushrooms are used for natural dyes.
- The branching teeth fungi can look like coral fungi but they hang down (like stalactites) whereas the coral fungi grow up (like stalagmites).

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**FIELDS OF FUNGI**

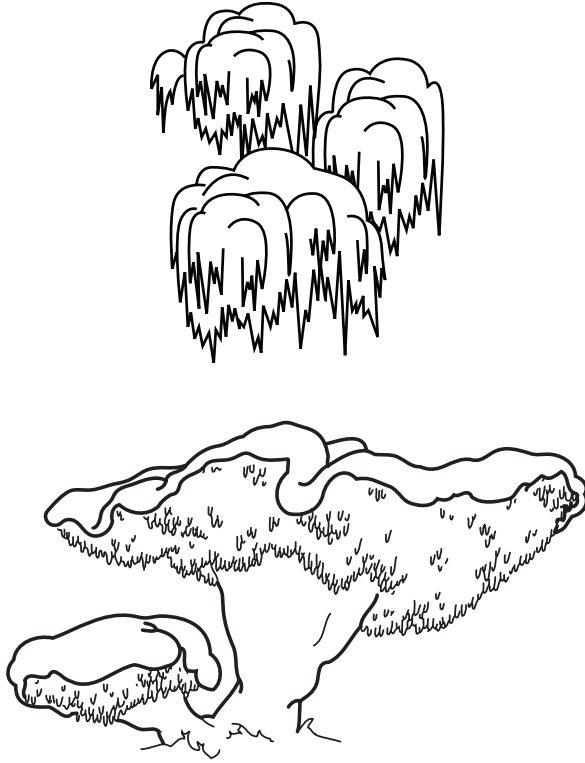
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## Hanging tooth fungi



## Polypores

### WHAT DO THEY LOOK LIKE?

Also called **bracket fungi**, they have **pores** on their underside but no cap or stem like the boletes and are tough (like leather or wood).

### WHERE ARE THEY FOUND?

These mushrooms grow on trees and are heavy-duty wood recyclers!

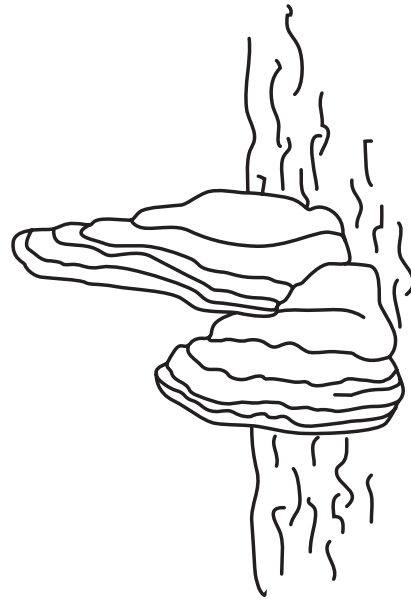
### FUN FACTS

- Shelf fungi are used as herbal medicines and were found in a bag on the body of the 5,300 year-old Ice Man mummy (Otze).
- Artists sometimes use these fungi as a canvas.
- If the tree where the mushroom is growing falls over, the mushroom will regrow so its pores always face downward.

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## Jelly Fungi

### WHAT DO THEY LOOK LIKE?

Jelly fungi are rubbery, seaweed-like mushrooms. They can be white, orange, pink, rose, brown or black. They could be shapeless, shaped like cups, railroad spikes or branched like coral.

### WHERE ARE THEY FOUND?

Jelly fungi often grow on logs, stumps and twigs. Some species are **parasitic** on other fungi, mosses, ferns or plants.

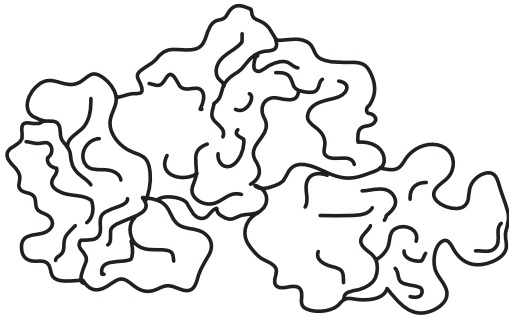
### FUN FACTS

- They shrink when the air is dry and then swell up again when it rains.
- The common name of yellow to orange species is witches' butter.

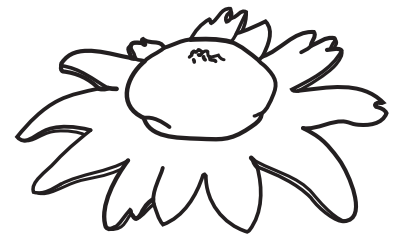
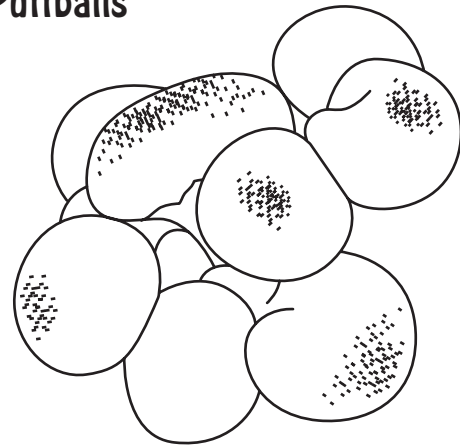
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**Puffballs**



**Earthstar**

## **Puffballs & Earthstars**

### **WHAT DO THEY LOOK LIKE?**

**Puffballs** are round or pear-shaped.

**Earthstars** are also round or pear-shaped when young, but they open into a star shape with a thin-skinned spore sac in the centre.

### **WHERE ARE THEY FOUND?**

Puffballs are found directly on the ground or on rotten wood. They can be found in meadows, under small stands of trees, around forest openings, and even in your playground! Look for them in late summer and fall.

### **FUN FACTS**

- Some puffballs can be as large as a watermelon.
- They have been called wolf farts or fairy farts.

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## **Bird's Nest Fungi**

### **WHAT DO THEY LOOK LIKE?**

Bird's Nest fungi really do look like a miniature bird's nest. They are very, very small--usually no more than 1cm in diameter.

### **WHERE ARE THEY FOUND?**

The best place to look for these mushrooms is on wood or twigs.

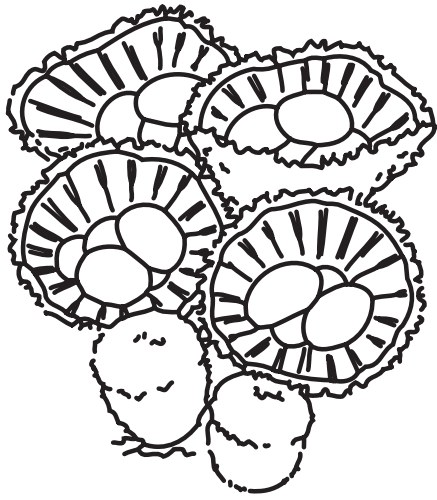
### **FUN FACTS**

- When raindrops fall into the cup, the eggs (that hold the spores) are splashed out some distance away from the nest.

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**Basket stinkhorn**

## Stinkhorns

### WHAT DO THEY LOOK LIKE?

You may actually smell this mushroom before you see it! They have a **stem** and a **cap-like**, smelly, slimy top with a **cup** or **volva** at its bottom. The beautiful **basket stinkhorn** lives in the tropics and actually has a lacy skirt. When these mushrooms are small, they look like perfect hardboiled eggs.

### WHERE ARE THEY FOUND?

These mushrooms are found on the ground, on rotten wood, on lawns, or in gardens or mulch.

### FUN FACTS

- Some stinkhorns can reach a length of 20 cm in only 2-3 hours!
- Their bad smell is meant to attract flies to distribute their spores.

## Cup Fungi

### WHAT DO THEY LOOK LIKE?

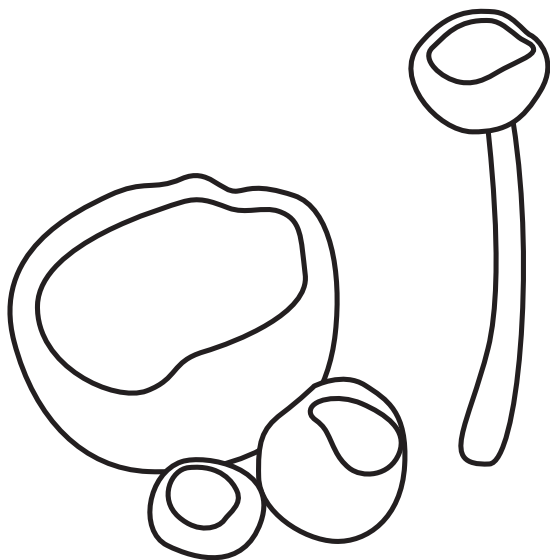
These mushrooms can look like little cups, ears, flasks, goblets, saucers, or orange peels.

### WHERE ARE THEY FOUND?

They are found in a wide variety of habitats including in damp basements! Look for them during cool, early spring weather, and again in the fall.

### FUN FACTS

- The cup or saucer shape is to expose a large area of hymenium, not to catch raindrops. If you breathe on a ripe cup fungus, you may see it puff.



## Earth Tongues

### WHAT DO THEY LOOK LIKE?

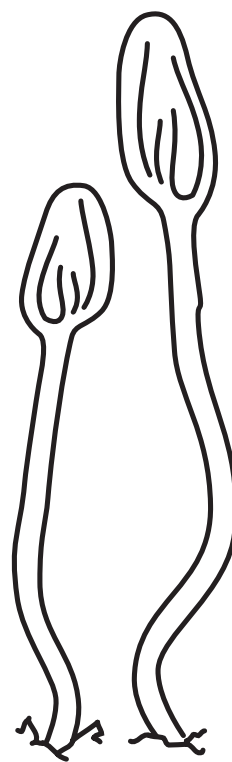
These mushrooms look like mini fire poker or lollipops. They can also look like matchsticks with flattened “heads” or tongues.

### WHERE ARE THEY FOUND?

The larger earth tongues live on soil, humus or wood while most of the smaller ones are parasitic on plant stems, leaves and other tissues.

### FUN FACTS

- One type of earth tongue named *Neolecta* has been called a “fungal dinosaur”.



## Morels & Elfin Saddles

### WHAT DO THEY LOOK LIKE?

**Morels** have a **stem** and honeycomb-like **cap**.

**False morels** have a wrinkled **cap** and look like little, brown brains.

**Elfin Saddles** have a **cap** that is wrinkled and saddle-like or cup-shaped as well as they have a **stem**.

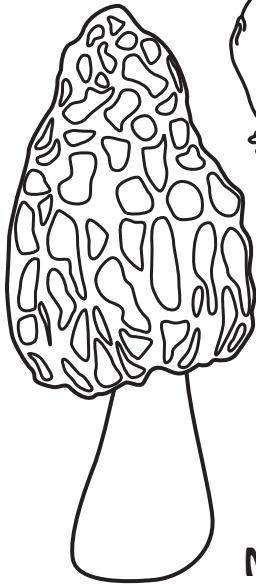
### WHERE ARE THEY FOUND?

Morels and elfin saddles grow in many different habitats. Look for these “early birds” in the spring!

### FUN FACTS

- Morels are considered such a delicacy that they sell for \$50-60 per kilogram.
- False morels are very poisonous when eaten raw because they contain gyromitrin which is an ingredient in rocket fuel.





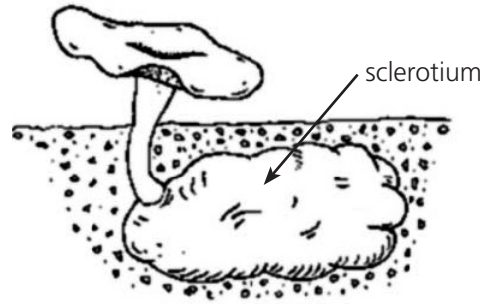
Morel



Elfin Saddles



Truffle



Canadian Tuckahoe

## Truffles

### WHAT DO THEY LOOK LIKE?

Both truffles and the Canadian tuckahoe look like old potatoes.

### WHERE ARE THEY FOUND?

Both of these fungi live underground so they are hard to find! They are also **mycorrhizal**; see if you can find the tree they are partnered with.

### FUN FACTS

- Truffles have been called “gold in the soil” and have been considered magical.
- Collected by people for at least 3600 years
- An amount the size of a candy bar would cost \$800.
- The truffles’ spores are spread by chipmunks that find the truffle from their delicious smell.

## Checklist of Fungi I Have Found

- |                                       |  |
|---------------------------------------|--|
| <input type="checkbox"/> Agarics      | <input type="checkbox"/> Bird’s Nest Fungi |
| <input type="checkbox"/> Boletes      | <input type="checkbox"/> Stinkhorns        |
| <input type="checkbox"/> Chanterelles | <input type="checkbox"/> Cup Fungi         |
| <input type="checkbox"/> Club Fungi   | <input type="checkbox"/> Earth Tongues     |
| <input type="checkbox"/> Coral Fungi  | <input type="checkbox"/> Morels            |
| <input type="checkbox"/> Teeth Fungi  | <input type="checkbox"/> Elfin Saddles     |
| <input type="checkbox"/> Polypores    | <input type="checkbox"/> Truffles          |
| <input type="checkbox"/> Jelly Fungi  |  |
| <input type="checkbox"/> Puffballs    |  |
| <input type="checkbox"/> Earthstars   |  |

**Draw the fungi you find here:**

How many centimetres tall is it?  
.....

Is it growing on a tree or on the ground?  
.....

Does it have gills, pores or spines under the cap?  
.....

Which group does it belong to?  
.....

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