

The World Of Fungi



A note to the readers:

1. The book is targeted at kids aged between 7 and 10 years.
2. Each fungus is introduced on a new page where the discussed fungus is coloured, and the rest are monochromatic.
3. We have used the scientific name of fungi in the book.

Mom called Tanya to the kitchen.

Mom: Tanya, please throw away the bread kept on the table.

Tanya: But mom, why are we wasting them?

Mom: You see this black dust on bread? It means the bread has gone bad.

Tanya: Mom, what is this black dust?

Mom: This black dust is due to the growth of fungus.

Tanya: Fungus? What is that?



Mom: Fungi are tiny living beings. They need air and food to survive, just like us. But they cannot move from one place to another as we do. They are an integral part of the environment to help decay matter. Some of them are edible, and hence they are used as food and medicine. But some are really harmful and can cause diseases to both plants and animals, including us.

Tanya: Wow! I didn't know about them at all.

Mom: If you want to know more about them, mommy has a book on fungi. It is there on the shelf. You will love it, Tanya.

Tanya: Thanks, Mom!



Tanya: Hmm, where is the book? Ahh, I found it.

Tanya opens the book and gets pulled into it.



Tanya is confused. She doesn't know where she is.

Tanya: Where am I? What is this place?

Snail: Oh hello there! I think you are new here. I am Terry.

Tanya: Hi Terry, where am I?

Terry: You are in the fungal forest, my dear. This is a magical forest where you can see and meet different types of fungi. But beware; because in this forest lies some of the deepest and darkest secrets of fungi. So make sure to watch your step during your journey here. Bye dear, I have to go now.



*Terry vanishes. Tanya is all alone now.
But being a curious child, she decides to
explore the forest, keeping Terry's warning
in mind.*



Tanya: Hi there, who are you, my tiny friend?

Yeast: Well, I go by the name- yeast. I am a single-celled organism. You might have noticed me in your kitchen. I give the dough a fluffy nature by a process called leavening. I live on plant leaves, flowers, and fruits. I am used for making bread, beer and wine and also by scientists who work in the field of biotechnology.



Penicillium: Hey, I have not seen you here before.

Tanya: Oh hello, I am Tanya. Who are you?

Penicillium: I am Pency. Have you heard of antibiotics?

Antibiotics have the superpower to kill microorganisms that cause diseases. I am the source of many antibiotics. My cousins make good cheese. We are also industrially used to produce enzymes.



Agaricus: I am the head of the mighty family of Agaricus mushrooms. You might have seen a few of my family members, the button mushrooms. They are edible and are used by humans as food. But I must say that I have some cruel members in my family as well who can poison you too! So be careful when picking mushrooms for food. Bye-bye now.



Candida: Hey! I am Candy. Usually, I promote gut health and aid in digestion. But these humans, you see! Rarely do they clean themselves, thereby provide me comfortable shelter. But alas! This causes them pain.

Tanya: Pain? Does that mean you hurt humans?



Candida: I don't have any other choice. I have to think about my survival too. Also, have you seen people with white tongue?

Tanya: Yes. I have seen a few.

Candida: I have a huge contribution in making it look like that.



Aspergillus: Hey! Who are you? Why are you here?

Tanya: Oh Hi! I am Tanya. I was just exploring the different kinds of fungi here.

Aspergillus: I am Asper. I would advise you to stay away from me.

Tanya: Why? Why should I?



Aspergillus: I can cause fever, chills, shock, delirium, seizures, and in extreme cases, multiple organ failure. Wear a mask to protect yourself when you are around me. We don't want you to fall ill.

Tanya: Thanks for warning me Asper!

Aspergillus: You're welcome.



Tanya: Oh you look scary!! Who are you guys?

Mucorales: Well we belong to Mucorales. We cause serious infections in humans that are life-threatening at times. The humans also call us "black fungus" because the area on the body which is infected by us turns black.





Tanya: Wow! You are glowing!

Panellus: Yeah, I know. Everyone finds me fascinating.

Tanya: But why is that only you glow? Why not the others?

Panellus: My glow is called 'bioluminescence.' It is due to a pigment called 'luciferin' that I have inside me. And let me tell you, I am not the only one who glows here. A few of my friends here also have this glow. You will find them as you go deeper into the forest.



Tanya: Ohhhhh, I think I have seen you guys somewhere?

Morrels and truffles: Hmm, yeah maybe in the kitchen. We are the delicious tasty mushrooms your mom cooks. But we are a bit expensive. We are however packed with vitamins and minerals that keep you healthy.



Terry: Oh dear, nice to meet you again.

Tanya: I have been away from home for so long. Mom would be worried. I wanna go back.

Terry: Just close your eyes and think about your home. You will be back then.

Tanya (with a sad face): Oh really? I will miss all of you.

*Terry vanishes before Tanya completes her sentence.
Tanya closes her eyes and thinks of home.*



Tanya opens her eyes. (She is lying on her bed). She hears her mother calling out her name

Mom: Tanya! Come have this mushroom soup I have prepared for you.

Mom: Did you have a good sleep honey? You were in your room for so long.

Tanya (realising that her Mom didn't know what was happening): Yes Mom, I had a wonderful dream, where I went on a fascinating adventure. I hope I meet the friends I made again.

Tanya understands that no one has noticed her absence, and hence decided to keep the adventure a secret to herself.



INTERESTING FACTS

The largest living organism in the world is the honey mushroom.

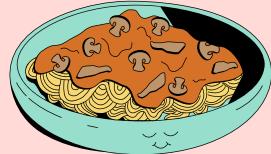
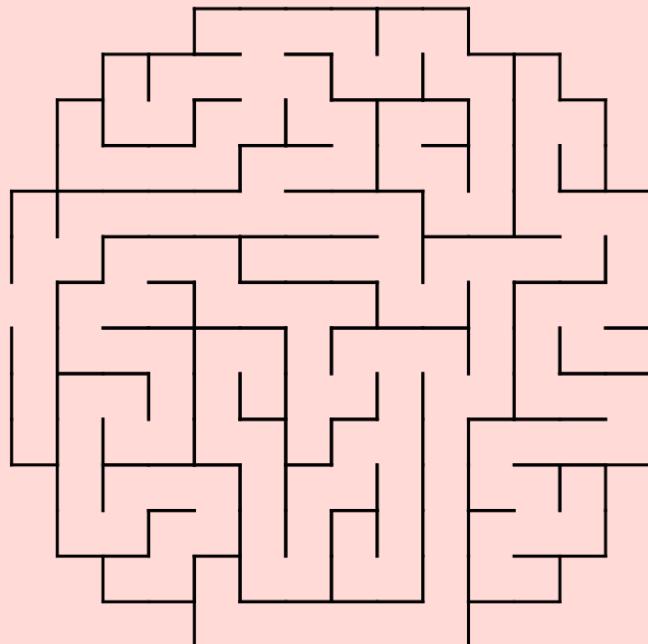


The milk that oozes out when blue mushroom is cut is indigo blue in color.

When algae live among the filaments of fungi, the complex organism is called lichen.



**TANYA'S DAD HAS COOKED DELICIOUS MUSHROOM
STROGANOFF FOR HER. TANYA IS VERY HUNGRY. IF YOU DON'T
MIND, COULD YOU PLEASE GUIDE TANYA TO HER FOOD?**



WORDSEARCH

S	S	U	G	N	U	F	Y	E	N	O	H	H	M
R	U	E	S	F	A	I	N	I	S	Y	M	U	U
S	N	R	E	U	E	T	U	O	U	N	I	L	U
U	H	A	L	U	C	C	S	R	S	L	I	U	R
L	S	C	A	C	T	R	L	R	L	M	L	N	T
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I	E	A	O	U	M	N	C	S	E	U	M	E	E
G	R	N	C	O	E	I	E	E	C	L	E	F	I
R	R	D	U	F	N	E	I	S	C	S	U	E	C
E	O	I	M	E	A	S	S	M	Y	E	T	O	N
P	M	D	P	A	G	T	F	N	T	S	A	E	Y
S	N	A	L	P	A	N	E	L	L	U	S	L	T
A	R	U	P	U	A	R	M	R	U	A	R	R	U
I	G	N	T	R	U	F	F	L	E	S	I	E	L

PENICILLIUM

CANDIDA

MORRELS

HONEY FUNGUS

MUCORALES

AGARICUS

YEAST

ASPERGILLUS

TRUFFLES

PANELLUS

Read the following questions and choose the most appropriate answer.

- 1) Tanya runs into her friend Ethan. His mom had asked him to buy an ingredient to bake bread from the store but he's forgotten its name! All he knows is that it is important to make the bread soft and fluffy. Tanya helps her friend and tells him the name of the ingredient. What ingredient is it?
- a)Penicillium
 - b)Aspergillus
 - c)Yeast
 - d)Morrels

2) Tanya and her mom went to the store to buy groceries. There she saw some fungi sold as food. Her mom shows her a paper that contains the names of few fungi and asked her to choose fungi from that which is not edible by referring to the names of fungi sold as food in the store. Which among the following will she choose?

- a) Button mushrooms
- b) Morrels
- c) Truffles
- d) Candida

3) Saya is Tanya's classmate. She read in the newspaper that some fungi cause a disease that can cause the infected area to turn black. Because of this, people commonly call these fungi "black fungus" even though the fungi is not black in color. She asks Tanya whether she knows which fungi actually cause the disease. Do you know which fungi is it?

- a) Aspergillus
- b) Candida
- c) Panellus
- d) Mucorales

Tanya along with her mom visits a doctor because Tanya develops rashes on her skin. The doctor told her that the rashes were caused due to fungal infection on her skin. Tanya wanted to know more about the diseases caused by fungi so she asked the doctor regarding the same.

Now let us see what the doctor's reply was:

Fungi can cause diseases to both plants and animals. The great Irish famine was caused by a fungus named Phytophthora that affected the potato crops. In humans, fungi can commonly cause skin infections. These infections can be itching and annoying. These are usually not life-threatening. But these fungi can also cause life-threatening diseases in people. Candida can cause candidiasis while Aspergillus cause aspergillosis. Mucorales cause Mucormycosis.

To prevent such infections in the future, doctor gave Tanya some advice and told her to share it with friends. Do you want to know what the advice was? Let us see.

Fungi require heat and moisture to grow, which is why they infect us at skin folds and such places. To prevent this from happening, you must maintain good personal hygiene.

You must take baths daily and always keep your skin clean and dry. You must not use towels, clothes or even the comb of an infected individual.

Always change out of sweaty clothes, because the moisture could also cause fungal infection.

Also to protect yourself from other dangerous fungi, make sure to wear a mask when visiting old and dampened buildings.

