

GROWING MOLD AT HOME

With this experience, you will be able to see what mold looks like and the effects of hygiene on its development. Mold spores can cause allergic reactions like pollen, so follow the directions in this exercise.

A mold is a living fungus but of course not in the same form as the mushrooms you can pick in the forest.



Equipment:

- 1 slice of bread (easier with sandwich bread)
- Transparent resealable container (freezer bag recommended)
- Some water
- Sprayer (optional)



Procedures :

Before you start, talk to your parents about what might happen. This is an important step for all scientists, we call it posing a hypothesis.

Hypothesis:



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Ask your parents to cut the slice of bread into 4. Be careful to touch it with clean hands and as little as possible!

Each piece will allow you to observe how mold grows if you wash your hands more or less well.



Now that you have your 4 pieces of bread, you can spray a little water on it, especially if your bread is a little dry (one spritz is enough).

A humid environment will be more favourable for the development of molds.



- For slice 1, put it directly in the freezer bag without touching it.
- For slice 2, rub your dirty hands on it then put it in a bag.
- For slice 3, wash your hands with soap, rub them on the slice and then put it in a new freezer bag.
- For slice 4, wash your hands with disinfectant, then rub them on the piece and put it in a freezer bag as well.

On each of your bags, mark the number of the treatment applied to your slices of bread (1, 2, 3, 4) so as not to forget later and put them in a place in your house where the temperature is average and, most notably, not cold.

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Throughout the experiment, write down in your logbook any changes you observe. After about 20 days, your molds should generally be well developed.

When your mold has finished growing, your experiment is over. You can put the bags in the trash without EVER opening them. If you are allergic to fungus spores, you have to be extra careful not to open the bags once the mold has appeared.

Explanation :

As written at the beginning, molds are living things that cannot necessarily be seen with the naked eye. They therefore need to feed, like you, in order to be able to multiply.

They need **water, sugar** and **oxygen**. Your sandwich bread has just enough sugar for the molds to grow and you added a little water to help them. There was enough oxygen in the freezer bag so everything was right for them.

Your experiment has allowed you to notice a difference between the piece of bread you touched with your dirty hands, the one you hardly touched and the ones you handled with your clean hands. Did the one touched with clean hands have no (or less) mold?

It's also possible that despite everything, you have mold growing on the slice that you touched with your clean hands.

Indeed, the air is not sterile, full of fungus / mold spores or bacteria roaming around. It may be that by the time you take the bread out of its wrapping and put it back in a bag, spores have settled on them and since you created an environment conducive to their development, they were able to multiply. On the other hand, these colonies have nothing to do with the cleanliness of your hands.

So remember, always wash your hands well when you get home or before eating, and even more now!!!



Growing Mold at home

Diary

This diary allows you to write down all your observations over the next few days.

Below are a few examples of molds of different colors to help you fill out your spreadsheet.



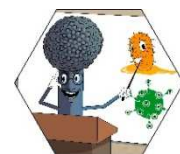
Example of a yellow mold



Example of a white (left) and a black (right) mold


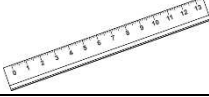


Example of a green mold



Name : _____

1. Untouched Bread



c	Mold Visible 	Colour Green	Colour White	Colour Yellow	Colour Black	Size of Mould 
1						
2						
3						
4						
5						
6						
7						
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9						
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11						

Name : _____

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Name : _____

2. Bread touched with unwashed hands


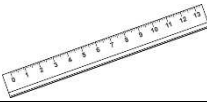
Day	Mold Visible 	Colour Green	Colour White	Colour Yellow	Colour White	Size of Mold 
1						
2						
3						
4						
5						
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9						
10						
11						

Name : _____

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Name : _____

3. Bread touched with well washed hands


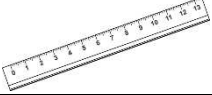
Day	Mold visible 	Colour Green	Colour White	Colour Yellow	Colour Black	Size of Mold 
1						
2						
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11						

Name : _____

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Name : _____

4. Bread touched with disinfected hands

Day	Mold Visible 	Colour Green	Colour White	Colour Yellow	Colour Black	Size of Mold 
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						

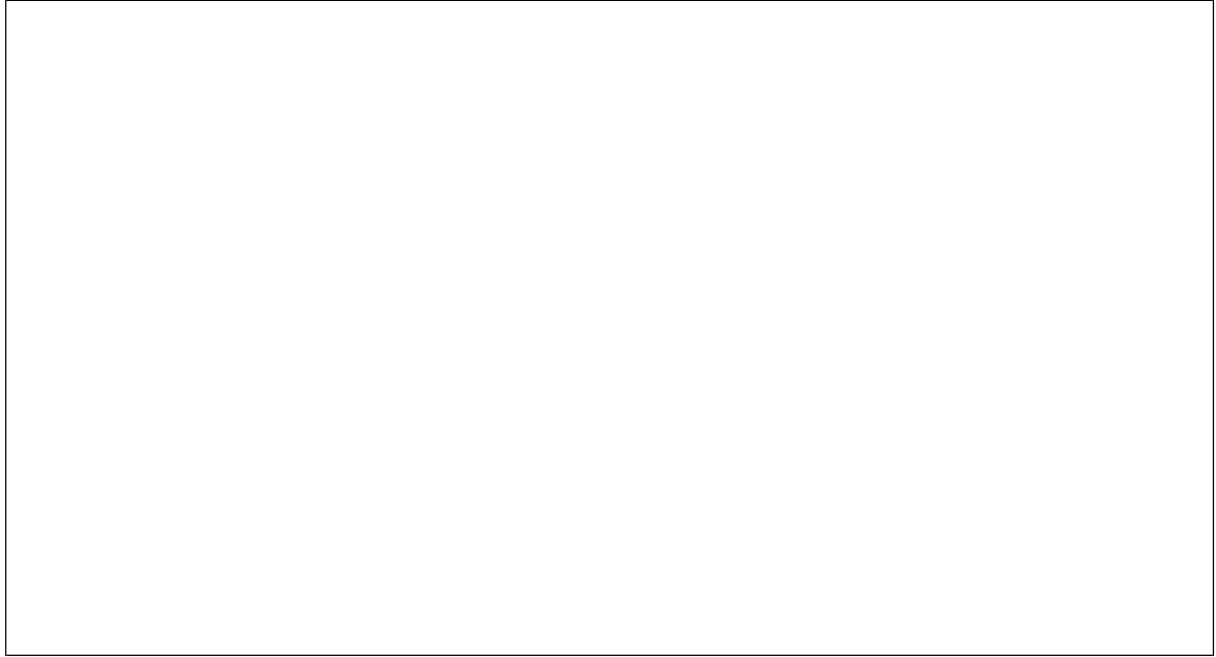
Name : _____

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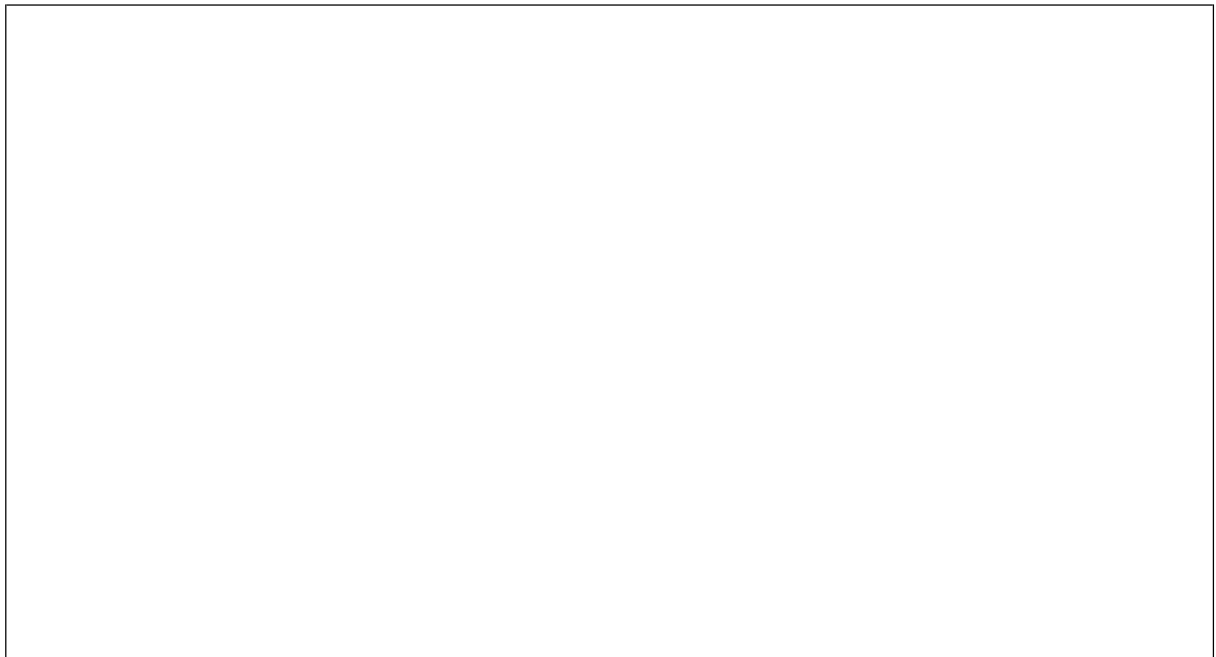
Name : _____

Draw what you can see at the end of the experiment

N° 1

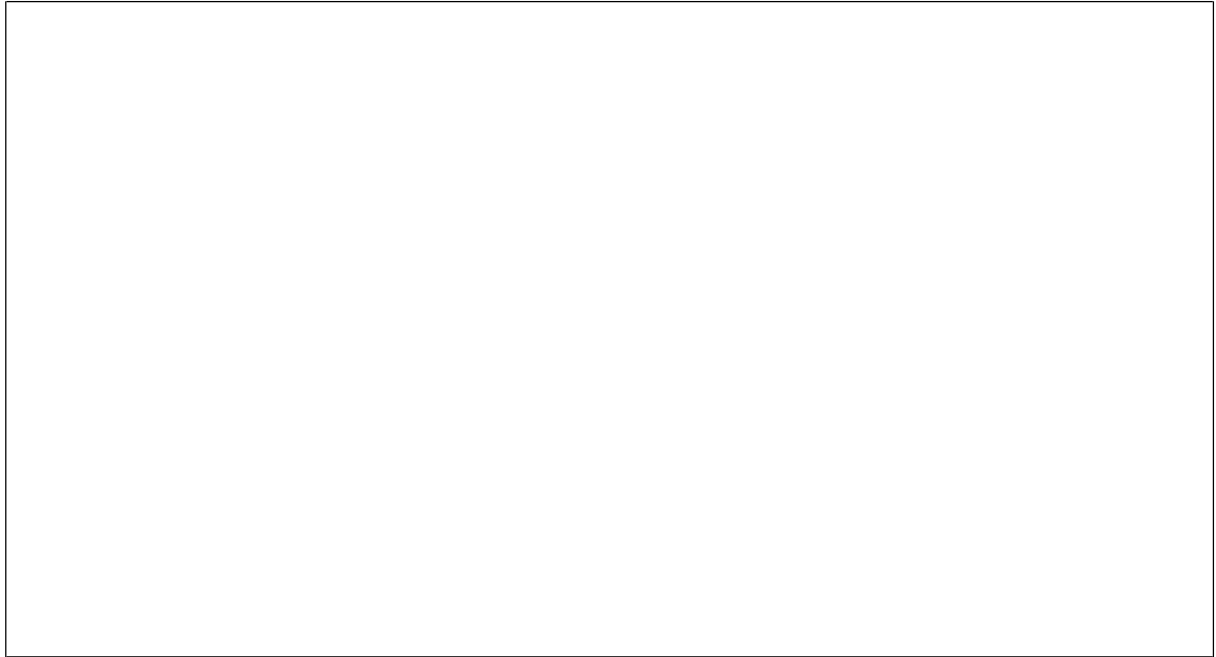


N° 2



Name : _____

N° 3



N° 4

