# Welcome to the Microban 24 24-Hour Science Experiment!

We know this school year is unlike any other, but the learning must go on!

Learning about science and bacteria can be really fun. Whether you're learning at home, attending school in person – or both – the Microban 24 24-Hour Science Experiment will help you learn about bacteria, and how they spread and grow.

Do you know what bacteria are? Bacteria are the smallest of all living organisms on Earth and can be found in the bread you eat, the soil that plants grow in, and even inside of your body. Bacteria can be good or bad. Good bacteria is helpful – they help us survive, digest food, absorb nutrients and more. Bad bacteria can be harmful, causing food to spoil, illnesses or diseases.

Bacteria actually spreads very easily and every time you touch a surface, your face and even your food, bacteria is traveling along with those touches.

With the Microban 24 24-Hour Science Experiment, you can do a hands-on experiment and play fun games to learn all about bacteria.

**So let's get to it!**

**Ages 10-12**

# Make Your Own Petri Dish

In this experiment, you are going to make your own petri dish. Petri dishes are clear dishes that we use in science labs to grow cells – like bacteria and fungi.

When we intentionally put bacteria in a dish, we are looking to grow more bacteria cells. By making your own petri dish, you can look at how bacteria grows – all without leaving your home or classroom.

**Supplies:**
- One or more shallow plate(s) or bowl(s)
- Pot or sauce pan
- Powdered gelatin (flavorless or flavored)
- Stock or a bouillon cube
- Cotton swabs
- *Experiment in Progress* sign

**Instructions:**

1) Gather your supplies and find a hard, flat surface to conduct your experiment. This can be a table or countertop.

2) Mix the gelatin with liquid chicken, beef or vegetable stock in the pot or sauce pan. Use the amount of liquid needed, according to the gelatin packaging.

- If you are using a bouillon cube instead of a liquid stock, mix the gelatin with water and add the bouillon cube to the water and gelatin.

3) With an adult's help, bring your mixture to a boil and let the mixture boil as long as it says on the gelatin packaging.

4) Once the mixture has boiled long enough, ask an adult to help you pour the mixture into the plate(s) or bowl(s), and place your mixture in the refrigerator to solidify overnight. Don't forget to place your "Experiment in Progress" sign near your mixture, so no one touches it.

- If you want to do the experiment a few times, split the mixture across multiple plates or bowls.

5) In the morning, take your cotton swabs and find the bacteria. Think about the things your family touches the most – a doorknob? Maybe it's a light switch, or it could even be the television remote. Go find that item!

6) Once you've found the item, wipe the cotton swab all over the item. Make sure any teeny, tiny bacteria on that item transfer to the cotton swab.

7) Wipe the cotton swab onto your petri dish. Make sure you're transferring all the little bacteria from the cotton swab onto your petri dish.

8) If you've created more than one petri dish, think of another surface in your house that you and your family are always touching! Repeat this process for each petri dish you created.

9) Store your petri dish in a warm place and put up your "Experiment in Progress" sign so no one tries to touch your sample!

10) Check your samples in 24 hours to see the bacteria growing. Check again each day at the same time to see how the bacteria changes over a few days. The samples from areas with the most bacteria will start to show a lot more changes than the areas of your home with fewer bacteria.

A H M C H J V V H E M G A V G A M Z

Y A I X A E R W P K R O M C Y Y I S

F N C B Q R J H A A K H L Y Z U C A

U D R C A B G D I M R X W D L C R N

N W O O O C Z B O N I A H H O I O I

G A B V O U T K A O O L S E K K S T

U S E A H O G E S V R V D I Z M C I

S H Z G U C X H R T I K I E T S O Z

H I K K F K W M I I A R N R W E P E

Z N H N D L E H J N A P U O U V E W

J G N R F G U R G V G R H S B S Z F

K A E X P E X P E R I M E N T V T T

**BACTERIA**
**COUGHING**
**DOORKNOB**
**EXPERIMENT**
**FLU**
**FUNGUS**
**HANDWASHING**
**MICROBE**
**MICROSCOPE**
**MILDEW**
**MOLD**
**PARASITE**
**RHINOVIRUS**
**SANITIZE**
**STAPH**
**VIRUS**

**Ages 10-12**

**Instructions:**
Print out the activity and with a pencil, find and circle the words given at the bottom of the page that are hidden in the grid!

PROTECTION THAT LIVES ON MICROBAN 24 HOUR

# Science Word Search

**24-Hour Science Experiment**

MICROBAN 24-Hour Science Experiment

| | | | |
|---|---|---|---|
|  **Virus** 1 | I can make you sick 1 |  **Handwashing** 2 | I can keep you from getting sick 2 |
|  **Bacteria** 3 | I am the simplest living creature 3 |  **Sneezing** 4 | I spread germs 4 |
|  **Fungus** 5 | I am not a plant nor an animal 5 |  **Microscope** 6 | I see tiny living things 6 |
|  **Protozoa** 7 | I am a group of simple living things 7 |  **Sanitize** 8 | I remove bacteria 8 |

**Ages 10-12**

**Supplies:**

Safety scissors

**Instructions:**

Print out the activity and with adult supervision, use scissors to cut out each of the cards and use the numbers as a guide to match the word to the definition!

# Science Memory Game

**24-Hour Science Experiment**

# EXPERIMENT IN PROGRESS