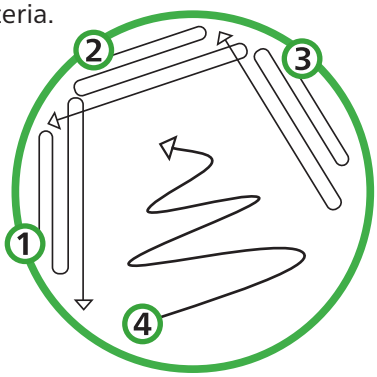
SCIENCE FROM HOME
GROWING MICROBES

Instructions:

1. Collect a number of items to test for bacteria.
2. Wet a swap with your sterile saline.
3. Wipe the swab over the surface of one test item.
4. Wipe the swap over the culture plate using this pattern: this is called streaking and allows identification of individual bacterial colonies.
5. Place the lid on the plate.
6. Repeat the process using a new swab and plate for each item you are testing
7. Place the plates in a box at room temperature and check in 2-3 days for bacterial growth



Questions:

Do all bacteria live in the same environments?

What are some of the ways bacteria are beneficial?

How it works:

Microbiology is the study of very small life. Bacteria are single celled microorganisms so small that they cannot be seen without a microscope unless they are grown in large quantities.

Going beyond:

What are positive and negative controls and why should they be included in all microbial tests?

Can you see multiple types of bacteria growing? What types of indicators are used to identify different bacteria?

What might happen if you change the environment or culture media in the experiment?

Materials:

Culture Media

Petri dishes

Sterile saline or contact solution

Sterile swabs

Objects to test for microbes

Gloves and eye protection

Key terms:

Microbiology

Bacteria

Pathogenic

ACADEMIC