Name: _____ Section: _____ Date: _____

Microbe Investigation Worksheet

From "Good dirt or bad germs? Let's swab it and see!"

Scientists often grow microbes on agar plates to see what kinds of organisms live in different environments. Each colony you see likely grew from a single microbe or a small group of microbes.

Observe your plates over several days and record what you notice. Do NOT open the plates once microbes begin growing.

Observation Table

Sample Source	# Day 1 Colonies	# Day 2 Colonies	# Day 3 Colonies	Notes (shape, color, texture, etc.)

Observation Questions

1. Which sample had the most colonies? _____

2. Which sample had the least growth? _____

3. Did colonies all have the same texture, or did textures vary? How or how not?

_____

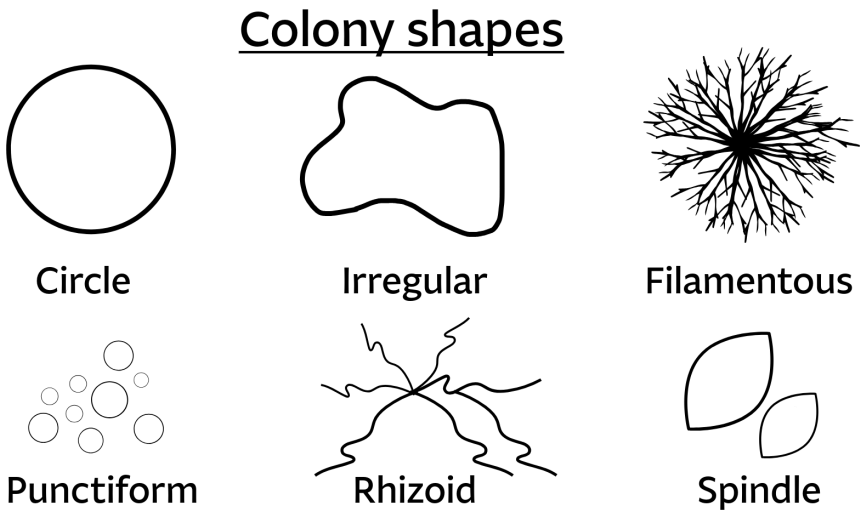
4. Which environments seemed to support the most microbial life? _____

5. Why do you think some surfaces had more microbes than others? _____

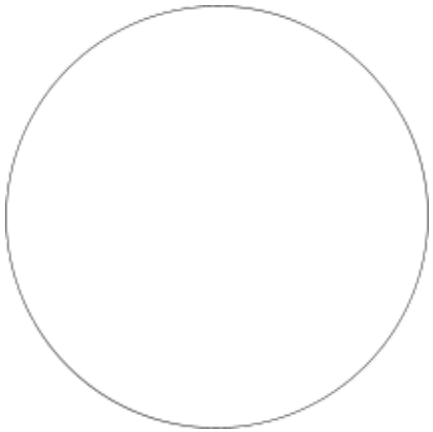
Colony Identification Quick Guide

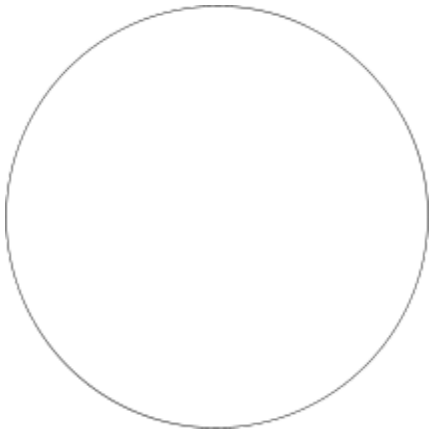
What you see	Likely microbe
Smooth, round, shiny colony	Bacteria
Small translucent dots	Young bacterial colonies
Fuzzy or hairy spreading colony	Mold (fungus)
Dark powdery spots	Mold spores

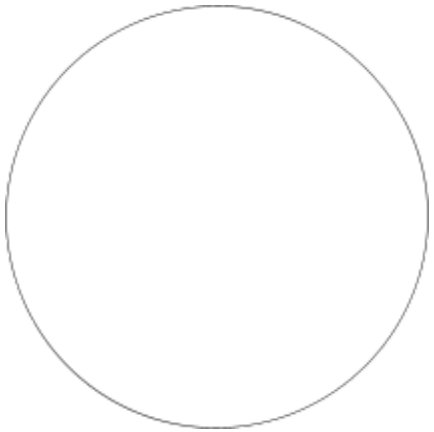
⚠️ ***Safety Reminder:*** *Do not open the agar plates after microbes begin growing. Observe through the lid only.*

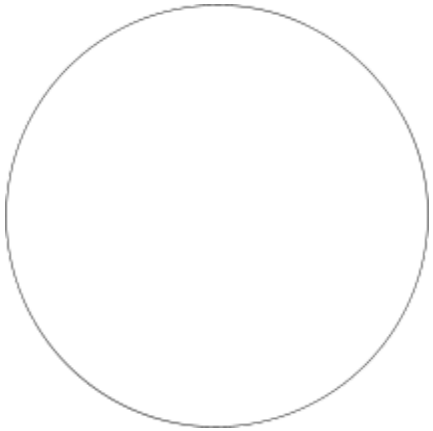


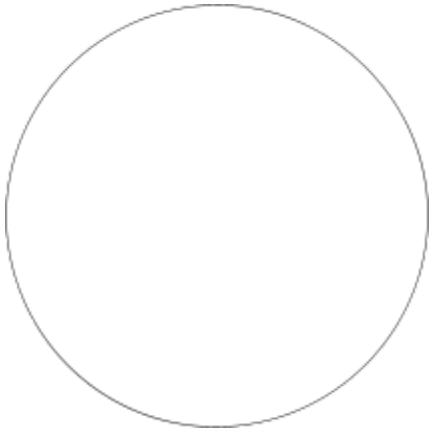
Draw Your Observations

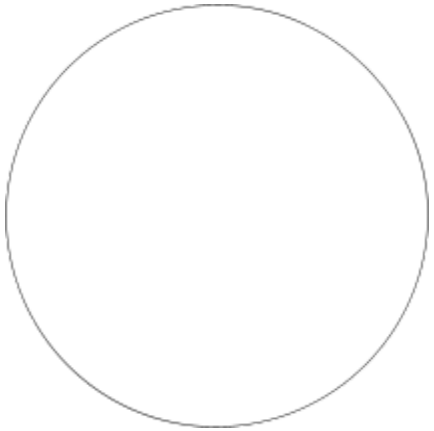












Discussion Questions

1. Did the results surprise you? Why or why not?

2. Why might handwashing still be important, even if some microbes are beneficial?

3. If you tested the five-second rule, does it change your opinion about eating a piece of food after it falls on the floor?

4. Can you tell by looking at your colonies if any contain microbes that might be harmful?