

Name _____



Rot Happens!

Have you ever opened the fridge and found a fuzzy, smelly strawberry at the back? That's rot—and it's actually the result of chemical changes. But what's really going on when food goes bad?

When food rots, tiny organisms like bacteria and fungi begin to break it down. These organisms love warm, wet places, which is why food left out on the

counter spoils faster than food kept in the fridge. As they feed on the food, these tiny creatures produce new substances. This is a chemical change. The food can't go back to the way it was before.

One sign of chemical change is a bad smell. As the bacteria and fungi break down the food, they release gases. These gases make rotting food stink. Another sign is color change. A banana turning brown or green fuzz on bread shows that new substances are forming.

Temperature also affects how fast food rots. Warmer temperatures give bacteria more energy to work quickly. That's why milk goes sour faster on a hot day. In colder temperatures, like inside a refrigerator, the bacteria slow down. This is why food stays fresh longer when it's cold.

Some chemical changes can be helpful. Composting, for example, uses the same kinds of chemical changes as rotting. Old fruits, veggies, and leaves break down and turn into rich soil. That soil can be used to grow new plants. So even though rot can be gross, it's also a natural and important part of how things grow and change.

So next time you see a moldy slice of bread, remember: you're looking at science in action!