

How Food Preservation Slows Spoilage

Name _____

Date _____

Fill in the gaps so that the text makes sense.

Food spoils when _____ grow or when enzymes and oxygen cause chemical changes. These tiny living things, including bacteria, yeasts and moulds, multiply quickly when they have warmth, moisture and nutrients. Preservation often makes one of these conditions less favourable, slowing spoilage without necessarily killing the organisms.

Refrigeration keeps food between 0 and 5 °C, where most microbes reproduce more slowly but do not all die. Freezing goes further because much of the food's liquid water becomes ice, leaving less available for growth. After thawing, surviving microbes can become active again, so frozen food still needs careful handling.

By definition, drying preserves food by _____, so microbes cannot obtain the moisture they need. Salt or sugar has a related effect, drawing water away from microbial cells; this helps jam and salted fish last longer than their fresh forms. _____, named after Louis Pasteur, uses controlled heat to kill many harmful or spoilage microbes, but it does not sterilise food. Canning combines stronger heating with an airtight seal. The heat reduces microbes already inside, while the seal prevents new ones from entering.