

# JR-SCIENTISTS

# WILL IT FREEZE?

Will water always freeze? Let's try this simple experiment and find out!

## INSTRUCTIONS:

**STEP 1:** Label the bowls "Bowl 1" and "Bowl 2".

**STEP 2:** Measure out 4 cups of water for each bowl.

**STEP 3:** Add 2 tablespoons of salt to bowl 2, a little at a time, stirring as you go.

**STEP 4:** Place both bowls in the freezer, checking results in an hour.

**STEP 5:** Recheck in 24 hours.

## SUPPLIES

2 Bowls  
Water  
Salt  
Spoon

## THE SCIENCE

The freezing point of freshwater is 0° Celsius / 32° Fahrenheit. If there is salt in the water, though, the freezing point will be lower. The more salt there is in the water, the lower the freezing point will be.

When fresh water freezes, water molecules of hydrogen and oxygen bind together forming ice. Salt in the water makes it harder for the molecules to bind with the ice structure; basically the salt gets in the way of the molecules, blocking them from joining the ice. The water takes longer to freeze. This is why salt is sometimes used on icy roads to slow down freezing and make them safer to drive on.

