# Science in the Kitchen with Bayer

## COLDER THAN ICE?

### How to make tasty raspberry ice cream

- Mix the milk, cream, sugar, vanilla, and raspberries in a small bowl.
- In the large bowl, sprinkle the salt onto the crushed ice and mix carefully with a spoon.
- Place the small bowl containing the raspberry mixture on top of the ice in the large bowl and push it down carefully, ensuring none of the ice spills into it.
- 4. Stir the raspberry mixture until it sets.
- 5. Enjoy!

#### Tips:

No raspberries? You can replace them with any fruit you like, or you can use chocolate powder to make delicious chocolate ice cream.

#### You will need:

// A small bowl (preferably metal)

**//** 1 tsp. salt

// 1/2 cup milk

// 1/2 cup cream

// 11 tbsp. sugar

// 1 tsp. vanilla extract

// 1/2 cup raspberries,

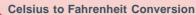
fresh or frozen

// A large bowl, half-filled with crushed ice

#### Why is salt all you need to get your raspberry ice cream to set?

When water molecules reach a temperature of 0  $^{\circ}$ C, they form solid crystal lattices and the water freezes. The molecules on the surface of the ice, however, are only loosely connected and form a thin layer of water. The salt dissolves in this layer, removing water from it. The water molecules from the crystal lattice below separate from the lattice and refill the water layer, so the ice starts to melt. The melting process uses a lot of heat energy, which is why the ice gets colder. The salt also prevents new ice crystal lattices from forming. Salt and ice can thus produce temperatures below

0 °C. This natural phenomenon helps, for example, to de-ice frozen roads but only works down to a temperature of -21.3 °C, as saline solution also freezes below this temperature.



0 °C = 32 °F -21.3 °C = -6.3 °F



Recipe source: www.bavlab.baver.com

