

# Gelatin Cells

<b><u>The Action</u></b>	Demonstrate how cells absorb water, using gelatin.
<b><u>Grade Level</u></b>	Grade 2 - Foods Grade 4 – Cells and Systems Biology 30 – Cell Structure and Function
<b><u>Materials</u></b>	Powdered gelatin dessert (Jell-O) or Knox Gelatin Saucer Hot Water Fork or Eye Dropper
<b><u>Instructions</u></b>	Sprinkle the gelatin onto the saucer in a flat layer. Dip the fork into the hot water or fill the eyedropper with hot water. Hold the fork or eyedropper over the plate and let one or two drops of water fall onto the gelatin. Examine the results right away and then again in five minutes.
<b><u>Safety</u></b>	Be aware of the hot water The gelatin crystals may sting a little if they get into eyes.
<b><u>Hints</u></b>	Do not forget to wrap up the experiment with dessert!
<b><u>Science Principle</u></b>	The gelatin gets bigger and swells up as it absorbs water. Similarly your hair, skin, and nails swell when water is absorbed. Gelatin is a type of protein, and so are hair, skin, and nails. This protein is called keratin. Neither gelatin or keratin will dissolve in water but both will absorb and hold a great deal of water, like a sponge. Hair full of absorbed water stretches, nails full of absorbed water swell up. Skin on you fingernails and toes is much thicker and can absorb more water, so much that it wrinkles.