



Activity 5: Just Add Water

What substances are soluble in water?

Hypothesis

Predict whether each substance is soluble or insoluble in water. For the last two blanks, choose two substances that you want to test, and predict if you think they are soluble or insoluble.

Substance	Soluble	Insoluble
salt		
sugar		
oil		
sand		
flour		
vinegar		
juice		
food colouring		
butter or margarine		

Materials

- large bowl or cup (a clear bowl or cup will allow students to see easier if substances dissolve)
- water
- salt
- sugar
- oil
- sand
- flour
- vinegar
- juice
- food colouring
- butter or margarine
- two substances of your choice (suggestions: peanut butter, liquid soap, cereal, baking powder, milk)
- teaspoon
- ADLC Lesson on Solubility
<https://www.youtube.com/v/tleDkkyoAPw#ADLC>

Procedure

1. Fill your cup or bowl about half full with water. (You need space to add and stir your substance.)
2. Add a small teaspoon of salt to the water, and stir gently.
3. Record your observations, and state if the substance is soluble or insoluble.
4. Repeat Steps 1 to 3 using each substance you are testing.

Observations

Substance	Observations Need a Hint? What happened when you add it to water? Did it disappear? Clump up? Form bubbles? Float on top or sink?	Soluble or Insoluble
salt		
sugar		
oil		
sand		
flour		
vinegar		
juice		
food colouring		
butter or margarine		

Conclusions

1. Compare your observations to your hypothesis.

2. Which of your predictions were incorrect?

3. Which of the substances formed solutions in water?

4. Which of your substances were insoluble in water?

Check your answers on p. 62.