Activity 7: Mix Maker

How can mixtures be identified?

Hypothesis

For the following mixtures that you will be making, predict whether you think each will be homogeneous or heterogeneous.

Mixture	Homogeneous or Heterogeneous?
cornstarch and water	
oil and water	
vinegar and water	
pepper and salt	
sand and water	
salt and water	
food colouring and water	

Materials

- box of cornstarch
- vegetable oil
- food colouring
- pepper
- water
- salt
- vinegar
- sand
- large clear bowl or glass jar
- large spoon
- 1 tablespoon
- newspaper
- measuring cup

Procedure

1. This activity is a bit messy, so ask an adult for help. Cover the work surface with newspaper to minimize the mess.

2. In your clear container, combine one tablespoon of cornstarch with about one quarter cup of water.

3. Mix them gently together with your spoon.

4. Record your observations of the mixture on your Observations Table. Describe and/or draw what you see.

5. Wash your container and spoon.

6. Complete your *Observations Table* by identifying what kind of mixture you just made.

7. Repeat Steps 2 to 6 for each other mixture. Use the measurements indicated on your *Observations Table* for each mixture.

Observations

Observation Table

Mixture	Observations	Kind of Mixture (solid-liquid, solid-solid, liquid-liquid)	Homogeneous or Heterogeneous?
1 Tbsp. cornstarch and 1/4 cup water			
1/4 cup vegetable oil and 1/4 cup water			
1/4 cup vinegar and 1/4 cup water			
1 Tbsp. pepper and 1Tbsp salt			
1 Tbsp. sand and 1/4 cup water			
1 Tbsp. salt and 1/4 cup water			
Two drops food colouring and 1/4 cup			

Conclusion

Compare your observations with your hypothesis.

• Which of your hypotheses were incorrect?

_____

_____

_____

_____

• Based on your observations, complete the following statements to answer your Explore Question: How can mixtures be identified?

- You can see the various parts of a _____mixture.

- You cannot see the various parts of a _____mixture.

Check your answers on p. 62.