**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.