

Name \_\_\_\_\_

Date \_\_\_\_\_

## **Classifying Mixtures Web Quest**

Log on to the following websites to find the websites needed to complete this activity. You will find the links under chemistry.

**Part 1:** Visit Study Jams and complete the topic "Matter." Select the following subtopics, properties of matter, mixtures, elements & compounds, and solids, liquids, and gases. Watch the video and take the quiz.

<http://studyjams.scholastic.com/studyjams/jams/science/index.htm>

## **Part 2: What is a mixture?**

Use this website to answer the following questions:

<http://education.jlab.org/qa/mixture.html>

<http://www.elmhurst.edu/~chm/vchembook/106Amixture.html>

[http://www.chem4kids.com/files/matter\\_solution.html](http://www.chem4kids.com/files/matter_solution.html)

A mixture is a substance made by \_\_\_\_\_ in

such a way that \_\_\_\_\_. A mixture can usually be

\_\_\_\_\_ back into its \_\_\_\_\_ components.

Some examples of mixtures are:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## **Part 2: What is a solution?**

Use this website to answer the following questions:

[http://www.ducksters.com/science/chemistry/solutions\\_and\\_dissolving.php](http://www.ducksters.com/science/chemistry/solutions_and_dissolving.php)

<http://www.elmhurst.edu/~chm/vchembook/106Amixture.html>

[http://www.chem4kids.com/files/matter\\_solution.html](http://www.chem4kids.com/files/matter_solution.html)

a is the solute.

- Solvent - The solvent is the substance that \_\_\_\_\_.

In the example above, the \_\_\_\_\_ is the solvent.

### **Concentration**

The concentration of a solution is the \_\_\_\_\_ of the solute to solvent.

If there is \_\_\_\_\_ in a solution, then it is "concentrated". If there is

\_\_\_\_\_ solute, then the solution is said to be "diluted."

### **Part 3: Solutions can be heterogeneous or homogenous.**

Watch this video clip on heterogeneous and homogenous.

<http://www.youtube.com/watch?v=5WIAFh8pz8w>

[http://www.chem4kids.com/files/matter\\_solution.html](http://www.chem4kids.com/files/matter_solution.html)

From the video give an example of a heterogeneous and homogenous mixture.

a. heterogeneous: \_\_\_\_\_

b. homogenous: \_\_\_\_\_

## Part 4: Suspensions and Colloids

Use this website to answer these questions:

[http://www.ducksters.com/science/chemistry/chemical\\_mixtures.php](http://www.ducksters.com/science/chemistry/chemical_mixtures.php)

[http://www.chem4kids.com/files/matter\\_solution.html](http://www.chem4kids.com/files/matter_solution.html)

### **Suspensions (heterogeneous)**

A suspension is a mixture between a \_\_\_\_\_.

In this case the \_\_\_\_\_. The particles and the liquid are mixed up so that the \_\_\_\_\_.

They are \_\_\_\_\_ in the liquid. A key characteristic of a suspension is that the \_\_\_\_\_ if left alone.

An example of a suspension is a mixture of \_\_\_\_\_.

When mixed up, the sand will \_\_\_\_\_ the water. If left alone, the sand will \_\_\_\_\_.

### **Colloids (heterogeneous)**

A colloid is a mixture where \_\_\_\_\_.

They appear very similar to \_\_\_\_\_, but the particles are \_\_\_\_\_ rather than \_\_\_\_\_.

The difference between a colloid and a suspension is \_\_\_\_\_, they will stay suspended or float.

An example of a colloid is \_\_\_\_\_. Milk is a mixture of \_\_\_\_\_ and \_\_\_\_\_ in water.

Colloids are generally considered \_\_\_\_\_ mixtures,  
but have some qualities of \_\_\_\_\_ mixtures as  
well.

Part 5: States of matter:

[http://www.chem4kids.com/files/matter\\_states.html](http://www.chem4kids.com/files/matter_states.html)

A liquid

is \_\_\_\_\_

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A solid is

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A gas is

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**Part 6: Review part1:** Visit the following links to watch videos.

<http://www.pbslearningmedia.org/resource/1b944d4a-6408-41e3-bb01-39845dd63cff/chemistry-203-separation-of-mixtures/>

<http://www.pbslearningmedia.org/resource/d273d78a-6574-4f83-9097-45b58c1893f0/chemistry-1002-solubility/>

<http://www.pbslearningmedia.org/resource/fc080ca9-c169-4ad7-af78-81438ba13326/chemistry-1001-solutions-a-special-type-of-mixture/>

## **Part 6: Review Part 2**

Watch this TedEd Clip on Mixtures: In class

[http://www.bbc.co.uk/bitesize/ks3/science/chemical\\_material\\_behaviour/compounds\\_mixtures/activity/](http://www.bbc.co.uk/bitesize/ks3/science/chemical_material_behaviour/compounds_mixtures/activity/)

Take this quick quiz to see what you know:

### **Q1. Large particles settle out on standing**

- Suspension
- Colloid
- Solution

### **Q2. Medium size particles settles out on standing, scatters light**

- Suspension
- Colloid
- Solution

### **Q3. Very small particles does not settle out on standing**

- Suspension
- Colloid
- Solution

### **Q4. Chocolate milk**

- Suspension
- Colloid
- Solution

### **Q5. Fog**

- Suspension
- Colloid
- Solution

### **Q6. Smoke**

- Suspension
- Colloid
- Solution

### **Q7. Muddy water**

- Suspension
- Colloid
- Solution

### **Q8. Orange juice**

- Suspension
- Colloid

Solution

**Q9. Whipped cream**

Suspension

Colloid

Solution

**Q10. Sugar water**

Suspension

Colloid

Solution

**Q11. Salt water**

Suspension

Colloid

Solution

**Q12. Oil and vinegar salad dressing**

Suspension

Colloid

Solution

**Q13. Milk**

Suspension

Colloid

Solution

**Q14. Marshmallow**

Suspension

Colloid

Solution