Station 1 - Oil and Water

You will need the following items at this station:

- Beaker with Water
- Beaker with Oil
- Test Tube Rack
- Test Tube
- o Funnel
- Rubber Stopper
- Graduated Cylinder
- 5 mL Scoop



- 1. Record observations of the materials before you mix them.
- 2. Measure out 20 mL of room temperature water and pour it into a clean test tube.
- 3. Place the test tube in the test tube rack.
- 4. Using the measuring spoon and the funnel, add 5 mL of oil to the test tube.
- 5. Record observations of the mixture before you shake it.
- 6. Put the stopper in the test tube, holding it with your thumb, turn the tube upside down, and shake it.
- 7. Record what you observe immediately after you are done shaking the mixture.
- 8. Allow the test tube to sit in the test tube rack for a minimum of three minutes (more time is better).
- 9. Record observations of the mixture after it has rested.
- 10. Wash your test tube and place it upside down in the rack to dry.
- 11. Tidy up all of your other supplies, leaving no mess for the next group.

Station 2 – Tums and Water

You will need the following items at this station:

- Beaker with Water
- Chewable Antacid Tablet (Tums)
- Test Tube Rack
- Test Tube
- o Funnel
- Rubber Stopper
- Graduated Cylinder
- Stir Stick
- Zip-Lock Bag
- Rubber Mallet
- Safety Goggles (4)



- 1. Place a single chewable antacid tablet in a zip-lock bag and seal it.
- 2. Wearing safety goggles, using the rubber mallet, gently tap on the antacid tablet, repeatedly, until it has been pulverized into a powder.
- 3. Record observations of the materials before you mix them.
- 4. Measure out 20 mL of room temperature water and pour it into a clean test tube.
- 5. Place the test tube in the test tube rack.
- 6. Plug the funnel with your finger and pour the antacid tablet from the bag, through the funnel
- 7. Hold the funnel over the test tube, then quickly move your finger so that all of the powder drops into the water.
- 8. Record observations of the mixture before you shake it.
- 9. Gently poke the antacid powder with the stir stick, pushing it slowly into the water.
- 10. Put the stopper in the test tube, holding it with your thumb, turn the tube upside down, and shake it.
- 11. Record what you observe immediately after you are done shaking the mixture.
- 12. Allow the test tube to sit in the test tube rack for a minimum of three minutes (more time is better).
- 13. Record observations of the mixture after it has rested.
- 14. Wash your test tube and place it upside down in the rack to dry.
- 15. Tidy up all of your other supplies, leaving no mess for the next group.

Station 3 – Alka-Seltzer and Water

You will need the following items at this station:

- Beaker with Water
- Alka-Seltzer Antacid Tablet
- Test Tube Rack
- Test Tube
- o Funnel
- Rubber Stopper
- Graduated Cylinder
- Stir Stick
- Zip-Lock Bag
- Rubber Mallet
- Plastic Tray
- Safety Goggles (4)



- 1. Place an Alka-Seltzer tablet in a zip-lock bag and seal it.
- 2. Wearing safety goggles, using the rubber mallet, place the bag on the floor and gently tap on the tablet, repeatedly, until it has been pulverized into a powder.
- 3. Record observations of the materials before you mix them.
- 4. Measure out 20 mL of room temperature water and pour it into a clean test tube.
- 5. Place the test tube in the test tube rack and place the test tube rack on the plastic tray.
- 6. Plug the funnel with your finger and pour the antacid tablet from the bag, through the funnel
- 7. Hold the funnel over the test tube, then quickly move your finger so that all of the powder drops into the water.
- 8. Record observations.
- 9. Allow the test tube to sit in the test tube rack for a minimum of three minutes (more time is better).
- 10. Record observations of the mixture after it has rested.
- 11. Wash your test tube and place it upside down in the rack to dry.
- 12. Clean your experiment area.
- 13. Tidy up all of your other supplies, leaving no mess for the next group.

Station 4 – Pepper and Water

You will need the following items at this station:

- Beaker with Water
- Beaker with Pepper
- Test Tube Rack
- Test Tube
- o Funnel
- Rubber Stopper
- Graduated Cylinder
- Stir Stick
- 2 mL Scoop



- 1. Record observations of the materials before you mix them.
- 2. Measure out 20 mL of room temperature water and pour it into a clean test tube.
- 3. Place the test tube in the test tube rack.
- 4. Using the measuring spoon and the funnel, add 2 mL of pepper to the test tube.
- 5. Record observations of the mixture before you shake it.
- 6. Put the stopper in the test tube, holding it with your thumb, turn the tube upside down, and shake it.
- 7. Record what you observe immediately after you are done shaking the mixture.
- 8. Allow the test tube to sit in the test tube rack for a minimum of three minutes (more time is better).
- 9. Record observations of the mixture after it has rested.
- 10. Wash your test tube and place it upside down in the rack to dry.
- 11. Tidy up all of your other supplies, leaving no mess for the next group.

Station S – Salt and Water

You will need the following items at this station:

- Beaker with Water
- Beaker with Salt
- Test Tube Rack
- Test Tube
- o Funnel
- Rubber Stopper
- Graduated Cylinder
- Stir Stick
- 2 mL Scoop



- 1. Record observations of the materials before you mix them.
- 2. Measure out 20 mL of room temperature water and pour it into a clean test tube.
- 3. Place the test tube in the test tube rack.
- 4. Using the measuring spoon and the funnel, add 2 mL of salt to the test tube.
- 5. Record observations of the mixture before you shake it.
- 6. Put the stopper in the test tube, holding it with your thumb, turn the tube upside down, and shake it.
- 7. Record what you observe immediately after you are done shaking the mixture.
- 8. Allow the test tube to sit in the test tube rack for a minimum of three minutes (more time is better).
- 9. Record observations of the mixture after it has rested.
- 10. Wash your test tube and place it upside down in the rack to dry.
- 11. Tidy up all of your other supplies, leaving no mess for the next group.

Station 6 – Hot Chocolate in Hot and Cold Water

You will need the following items at this station:

- Beaker with Cold Water
- Beaker with Hot Water
- Beaker with Hot Chocolate Powder
- Test Tube Rack
- Test Tubes (2)
- Funnels (2)
- Rubber Stoppers (2)
- Graduated Cylinder
- Stir Sticks (2)
- o 2 mL Scoops (2)
- Hot Mitt



- 1. Record observations of the materials before you mix them.
- 2. Measure out 20 mL of cold water and pour it into a clean test tube.
- 3. Measure out 20 mL of hot water and pour it into a clean test tube. *Use the hot mitt when handling the hot water.
- 4. Place the test tubes in the test tube rack.
- 5. Using the measuring spoons and the funnels, add 2 mL of hot chocolate powder to both of the test tubes <u>at the same time</u>.
- 6. Record observations of the mixtures before you shake them.
- 7. Put the stoppers in the test tubes, holding them with your thumbs, turn the tubes upside down, and shake them.
- 8. Record what you observe immediately after you are done shaking the mixtures.
- 9. Allow the test tubes to sit in the test tube rack for a minimum of three minutes (more time is better).
- 10. Record observations of the mixtures after they have rested.
- 11. Wash your test tubes and place them upside down in the rack to dry.
- 12. Tidy up all of your other supplies, leaving no mess for the next group.

Station 7 – Juice Crystals in Hot and Cold Water – No Shaking

You will need the following items at this station:

- Beaker with Cold Water
- Beaker with Hot Water
- Beaker with Juice Crystals
- Test Tube Rack
- Test Tubes (2)
- Funnels (2)
- Graduated Cylinder
- 2 mL Scoops (2)
- Hot Mitt



- 1. Record observations of the materials before you mix them.
- 2. Measure out 20 mL of cold water and pour it into a clean test tube.
- 3. Measure out 20 mL of hot water and pour it into a clean test tube. *Use the hot mitt when handling the hot water.
- 4. Place the test tube in the test tube rack.
- 5. Using the measuring spoons and the funnels, add 2 mL of juice crystals to both of the test tubes <u>at the same time</u>.
- 6. Record observations of the mixtures.
- 7. <u>Do not shake</u> the mixtures.
- 8. Allow the test tubes to sit in the test tube rack for a minimum of three minutes (more time is better).
- 9. Record observations of the mixtures after they have rested.
- 10. Wash your test tubes and place them upside down in the rack to dry.
- 11. Tidy up all of your other supplies, leaving no mess for the next group.

Station 8 – Half a Test Tube of Sugar and Half a Test Tube of Water

You will need the following items at this station:

- Beaker with Hot Water
- Beaker with Sugar
- Test Tube Rack
- Test Tubes (2 labelled wit half-way marks)
- Funnels (2 one labelled "Dry", one labelled "Wet")
- Rubber Stopper
- Stir Stick
- Hot Mitt



Please follow the following instructions to complete this station:

- 1. Record observations of the materials before you mix them.
- 2. Using the "wet" funnel pour hot water into a clean test tube up to the half way line.

*Use the hot mitt when handling the hot water.

- 3. Place the test tube in the test tube rack.
- 4. Using the "dry" funnel pour sugar into a clean test tube up to the half way line.
- 5. Using the "dry" funnel combine the two substances, pouring the sugar into the water. Do not get the funnel tip wet.
- 6. Record observations of the mixture before you shake it.
- 7. Put the stopper in the test tube, holding it with your thumb, turn the tube upside down, and shake it.
- 8. Record what you observe immediately after you are done shaking the mixture.
- 9. Allow the test tube to sit in the test tube rack for a minimum of three minutes (more time is better).
- 10. Record observations of the mixture after it has rested.
- 11. Wash your test tube and place it upside down in the rack to dry.
- 12. Tidy up all of your other supplies, leaving no mess for the next group.