

# VALENTINE'S SCIENCE



## VALENTINE'S DAY SCIENCE

- 1 Disappearing Hearts
- 2 Dissolving Hearts
- 3 Sparkly Explosion
- 4 Secret Messages
- 5 Heart Catapults
- 6 Building a Tower
- 7 Valentine's Day S
- 8 Crystal hearts

Valentine's  
Day Science  
Activities



# VALENTINE'S DAY SCIENCE

- 1 Disappearing Hearts
- 2 Dissolving Hearts
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- 6 Building a Tower
- 7 Valentine's Day Slime
- 8 Crystal hearts

# Materials List

## MATERIALS LIST

Each recipe lists enough ingredients for a group of 4-5 students.

Activity	Materials Needed Per Group
Disappearing Hearts	<ul style="list-style-type: none"> <li>Candy Hearts (Sweethearts)</li> <li>3 Types of Liquids</li> <li>Water</li> <li>4 Clear Cups</li> <li>Sticky Notes/Marker to Label</li> <li><math>\frac{1}{4}</math> Cup Measuring Cup</li> </ul>
Dissolving Hearts	<ul style="list-style-type: none"> <li>Candy Hearts (Sweethearts)</li> <li>Hot Water</li> <li>Room Temperature Water</li> <li>Cold Water</li> <li>3 Clear Cups</li> <li><math>\frac{1}{4}</math> Cup Measuring Cup</li> </ul>
Sparkly Explosion	<ul style="list-style-type: none"> <li>Tall Container (vase, graduated cylinder, 2 liter bottle, etc.)</li> <li>3 Tablespoons of Baking Soda</li> <li><math>\frac{1}{2}</math> Cup of Vinegar</li> <li>Red Food Coloring</li> <li>Glitter</li> <li>Pan or Box to Contain the Mess</li> <li>Extra Items (salt, sand, juice, etc.)</li> <li><math>\frac{1}{2}</math> Cup Measuring Cup</li> <li>Tablespoon</li> </ul>
Secret Messages	<ul style="list-style-type: none"> <li>White Paper</li> <li>Baking Soda</li> <li>Water</li> <li>Paint Brush</li> <li>Small Spray Bottle</li> <li>Teaspoon</li> <li>Small Bowl</li> <li>Fruit Juice (Lemon, Grape, Blended, etc.)</li> </ul>

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Name: \_\_\_\_\_

#### Materials:

- Candy Hearts
- 3 Types of Liquids
- Water
- 4 Cups
- $\frac{1}{4}$  Cup Measuring Cup
- Sticky Notes/Marker

#### Procedure:

1. Pour  $\frac{1}{4}$  cup of each type of liquid (including water) into different cups. Label them with sticky notes.
2. Put one candy heart into each cup at the same time.
3. Record your observations in the table below.

	Water	Liquid #2	Liquid #3	Liquid #4
Time Check #1: _____ Minutes	The heart sank but is not disappearing	Shaved a little sign that it's slowly disappearing	Did not sink. Immediately began to fizz!	Same results as water.
Time Check #2: _____ Minutes				
Time Check #3: _____ Minutes				
Time Check #4: _____ Minutes				

What liquid made the candy heart disappear the fastest?  
Why do you think that happened? \_\_\_\_\_

# 8 Hands On Experiments







# Teachers Like You Say:



**Extremely satisfied**

My students loved this! We used these for our class Valentine's Day party. The kids had a great time and were learning!



We had a blast using these stations and it will be one of the most memorable parties that I put together. Thank you!



**Extremely satisfied**

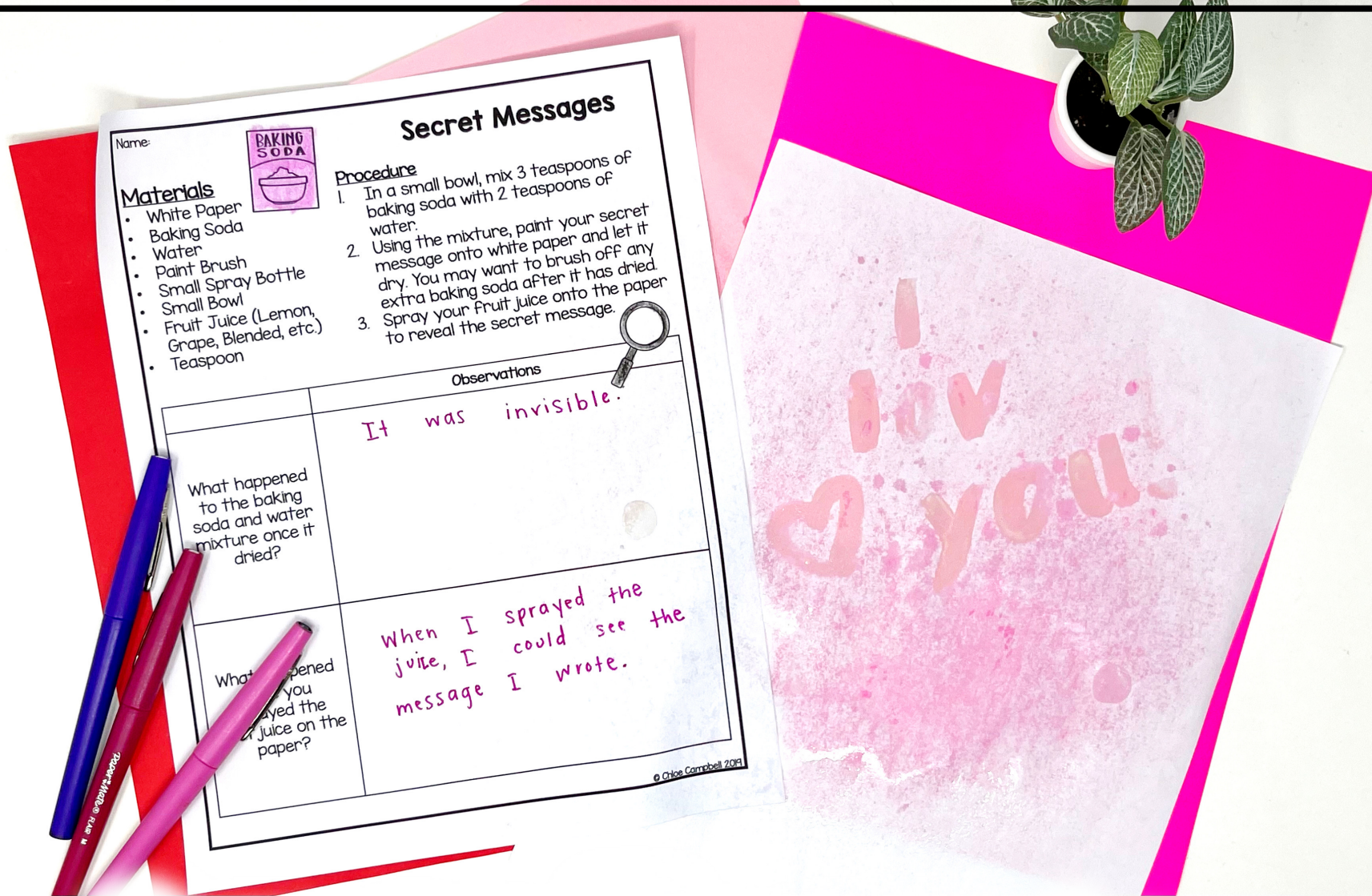
It was so much fun doing these activities with my students! Definitely will be using this every year!



**Extremely satisfied**

My students and I loved having this resource for class! It was engaging and fun!!





Name: \_\_\_\_\_



## Secret Messages

### Materials

- White Paper
- Baking Soda
- Water
- Paint Brush
- Small Spray Bottle
- Small Bowl
- Fruit Juice (Lemon, Grape, Blended, etc.)
- Teaspoon

### Procedure

1. In a small bowl, mix 3 teaspoons of baking soda with 2 teaspoons of water.
2. Using the mixture, paint your secret message onto white paper and let it dry. You may want to brush off any extra baking soda after it has dried.
3. Spray your Fruit Juice onto the paper to reveal the secret message.

### Observations

What happened to the baking soda and water mixture once it dried?

It was invisible.

What happened when you sprayed the fruit juice on the paper?

When I sprayed the juice, I could see the message I wrote.

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# Super Engaging Science Activities!



# Why should you do science experiments on Valentine's Day?

- We all know how students behave on this exciting holiday! These experiments and investigations will keep your students fully engaged.
- Behavior problems will decrease as student engagement increases!
- Hands-on activities create a level of student buy-in. There's motivation to learn and grow now that the student has enjoyed a learning activity.



## Crystal Hearts

- Materials**
- 1 Pipe Cleaner
  - 1 Popsicle Stick
  - Small Piece of String

## Sparkly Explosion!

- Materials**
- Small Container (vase, graduated cylinder, 2 liter bottle, etc.)
  - 4 Tablespoons of Baking Soda
  - ½ Cup of Vinegar
  - Red Food Coloring
  - Glitter
  - Pan or Box to Contain the Mess
  - Extra Items (Salt, Sand, Juice, etc.)
  - ½ Cup Measuring Cup
  - Tablespoon

- Procedure**
- Put the baking soda in the bottom of the tall container.
  - Add 6-7 drops of red food coloring.
  - Quickly pour in the vinegar and observe.
  - Try the same steps but add in different items.

## Valentine's Day Slime

### Materials

- ½ Cup of Water
- ½ Cup of White Glue
- ½ Cup of Liquid Starch

## Heart Catapult

Materials on the table, you will create a catapult. Plan with your team how you will use the materials, build the catapult, test it, discuss strengths and weaknesses, then revise the catapult.

Final Catapult

## Heart Tower

Materials on the table to create a tower. Plan with your team how you will use the materials, build the tower, discuss strengths and weaknesses, then revise the tower.

Final Tower

## Dissolving Hearts

### Materials:

- Candy Hearts
- Cold Water
- Room Temperature Water
- Hot Water
- ½ Cup Measuring Cup
- Clear Cups

### Procedure:

- Pour ½ cup of each water into clear cups. Label them with numbers.
- Put one candy heart in each cup at the same time.
- Record your observations in the table below.

	Cold Water	Room Temperature Water
Time Check #1:		
Minutes		
Time Check #2:		
Minutes		
Time Check #3:		
Minutes		

Your students will LOVE these!

# Why should you do science experiments on Valentine's Day?

- Experiments allow for a great classroom discussion, problem-solving, and interactions between students and teacher.
- Hands-on activities will also allow students to be social. This will be a great relationship building activity for students.
- Have fun with your students! They are able to see your personality and you are able to learn more about them, too.