

# Monday, October 15, 2018

## Your Learning Goal:

After observing the two beakers, students will describe the phenomena using prior knowledge, and predict what is happening at a molecular level.

## Table of Contents: Changing Phases - 12L

## Catalyst (12L):

In what ways might you be able to change the order of atoms/molecules in a substance?



### Homework:

Watch Big Bang Video  
Cornell Notes 10L+R



### Agenda:

1. Catalyst
2. Experiments!
3. Reflection

# Table of Contents

<u>Date</u>	<u>Assignment</u>	<u>Pg #</u>
10/8/18	Our Expanding Universe	9 L+ R
10/8/18	The Universe: Beyond the Big Bang	10 L + R
10/11/18	Going Subatomic	11L + R
10/15/18	Changing Phases	12 L + R

10/15/18

## Catalyst:

In what ways might you be able to change the order of atoms/molecules in a substance?



## Reflection

**12L**

## Changing Phases

1

Hot Water

Cold Water

2

Minutes

Temperature

3

Sketch of  
Experimental  
Set Up

2

**12R**

# Experimental Set Up # 1



↑  
Beaker with Ice

↑  
Beaker with Water

↑  
Food Coloring

10/15/18

## Catalyst:

In what ways might you be able to change the order of atoms/molecules in a substance?



## Reflection

**12L**

## Changing Phases

1

Hot Water

Cold Water

2

Minutes

Temperature

3

Sketch of  
Experimental  
Set Up

2

**12R**

# Experimental Set Up # 2



10/15/18

## Catalyst:

In what ways might you be able to change the order of atoms/molecules in a substance?



**12L**

## Changing Phases

1

Hot Water

Cold Water

2

Minutes

Temperature

3

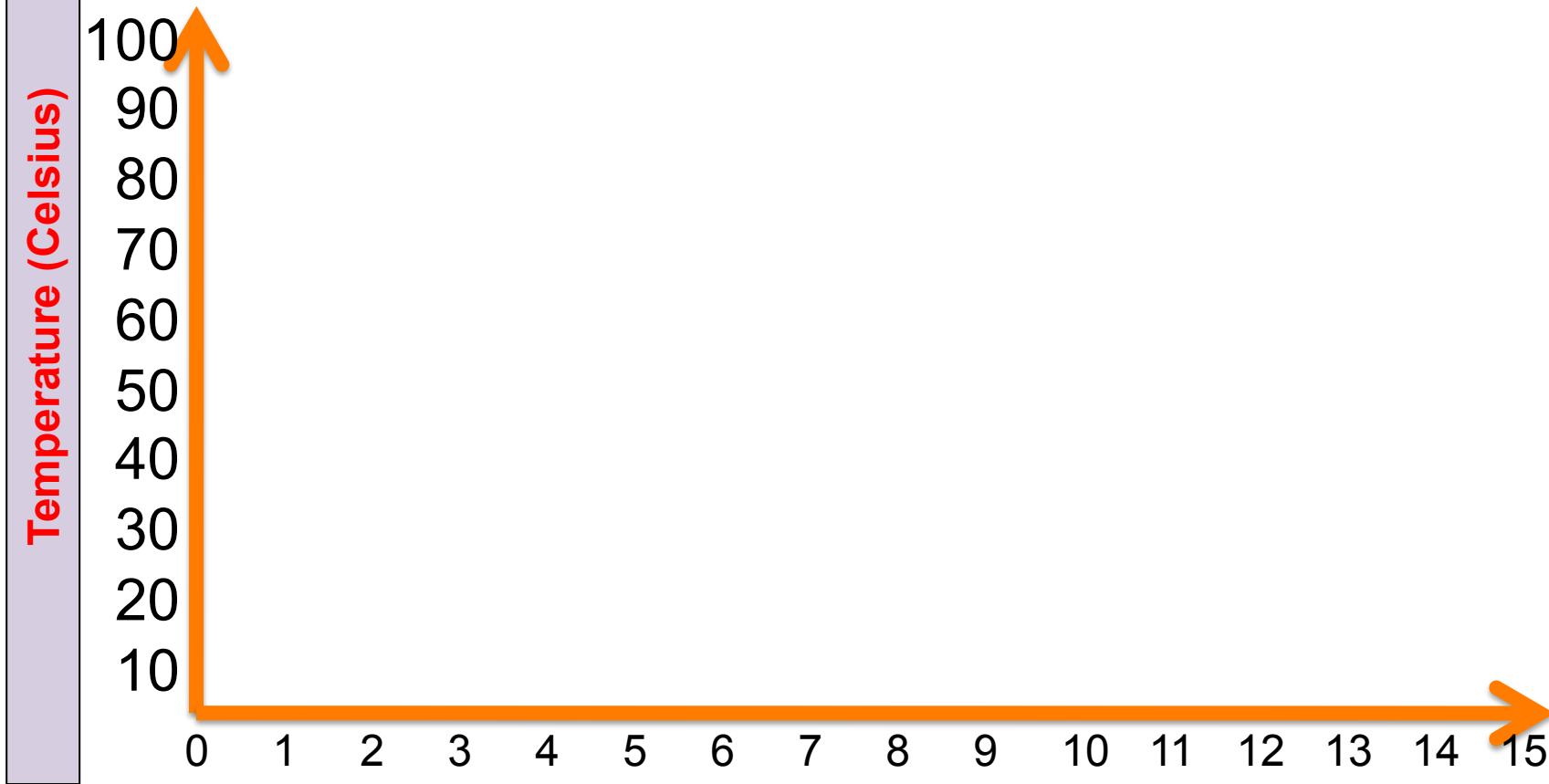
Sketch of  
Experimental  
Set Up

2

**12R**

# Graph It!

Change in temperature over time of ice on a hot plate



Time (minutes)

**12R**



# Experimental Set Up # 3



10/15/18

### Catalyst:

In what ways might you be able to change the order of atoms/molecules in a substance?

### Reflection

Create a story describing the changes a water molecule went through from ice, to water to steam and back to water.

**12L**

### Changing Phases

**12R**