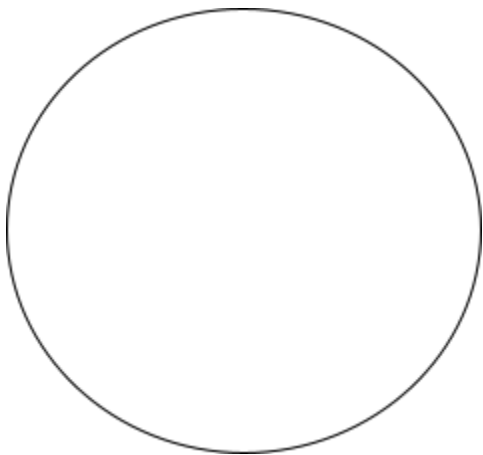


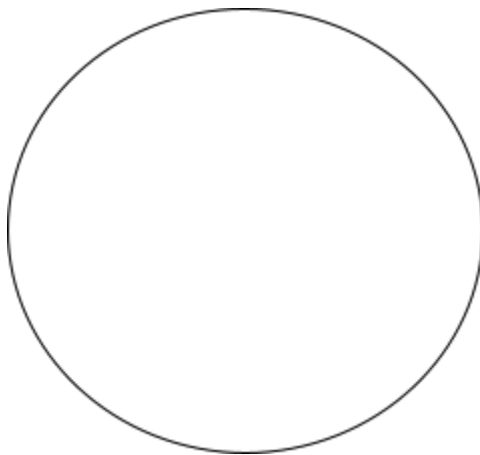
Lesson 11: How does temperature impact water particle motion?**Water Investigation**

Create models of water molecules- include diagrams, labels/action marks, and explain your model.

Directions: Draw a zoomed-in model of liquid water. If you could zoom in, what would you see? We will draw the class version together after collaborating.



Individual Model

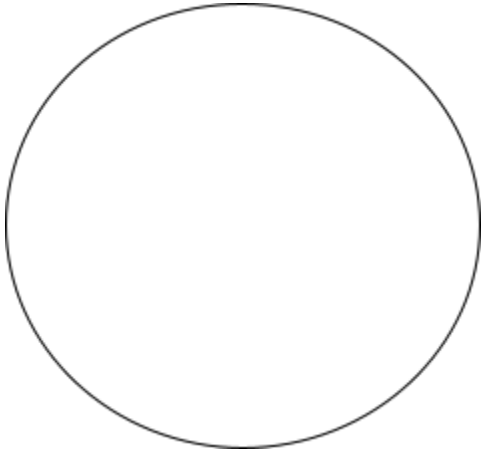


Class Model

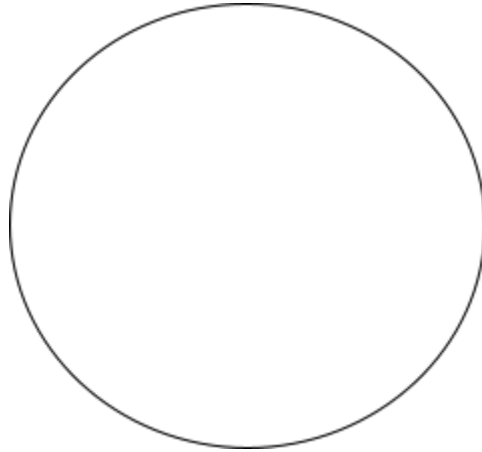
Explanation:

Explanation:

Next imagine that the water is now as gas was frozen. Draw a model of frozen water, ice.



Individual Model

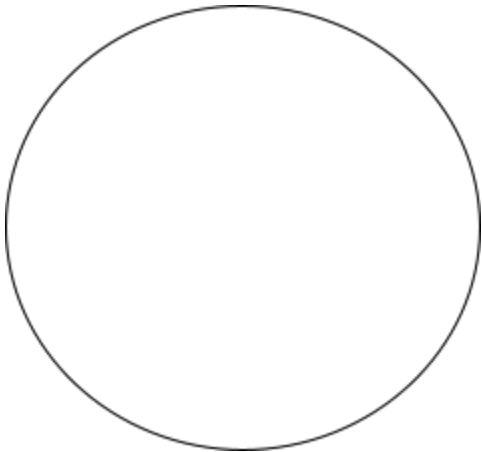


Class Model

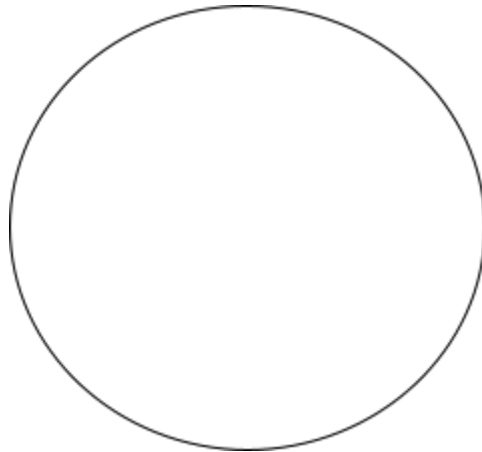
Explanation:

Explanation:

Next imagine that the water is now gas. Draw a model of water vapor.



Individual Model



Class Model

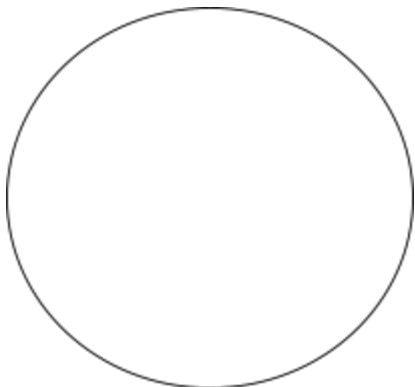
Explanation:

Explanation:

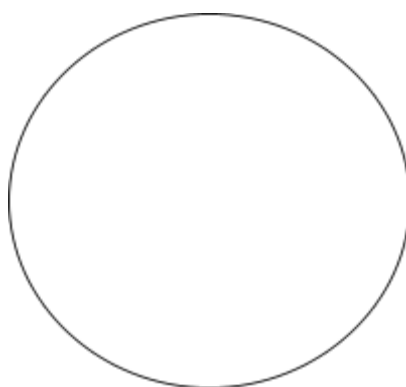
<https://phet.colorado.edu/en/simulation/states-of-matter-basics>

Redraw the class consensus models of each phase. Briefly describe the patterns of movement and spacing in each model. Use evidence from the knowledge you gained from the PhET simulations and class models to support your explanations.

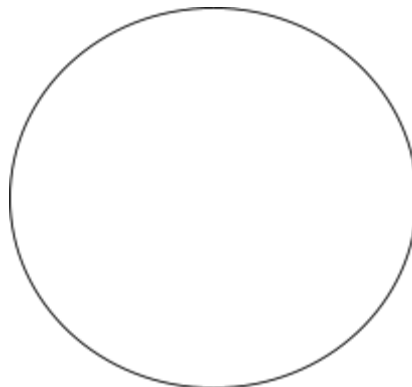
Solid



Liquid



Gas



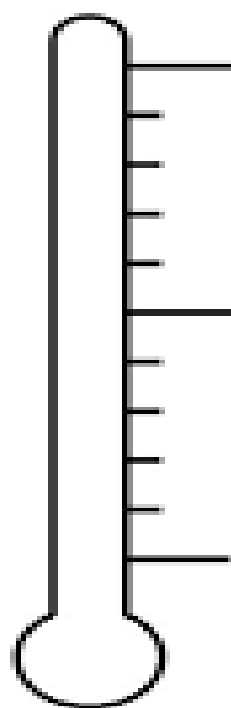
Description:

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We regularly use thermometers to check the temperature of items. What does *temperature* mean?

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Based on what you now know about the motion of molecules in a liquid, **create models** of the molecules in the liquid in the thermometer. (Hint: Think back to the drawings we made of water, ice, and steam.) Try to show the difference in distance between the molecules when the liquid is hot and cold. Use motion lines or action marks to represent the kinetic energy (fast or slow).

**Hot****Cold**

Based on your models, explain how a thermometer actually works. How does it measure temperature?