

Name:

Date:

Class:

Pre/Post-Quiz

1. For each item below put which scale would be most appropriate; meter, millimeter, micrometer, or nanometer:

Item	Scale
Feather	
Atom	
Length of eye lash	
Width of eyelash	
Human DNA	
House	
Molecules	
Plant cell	
Virus	
Tree	
Ant	
Bacteria	

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2. A student pours a small amount of salt into boiling water and it appears to have dissolved. The ability to dissolve is called:

- A. mass
- B. magnetism
- C. evaporation
- D. solubility

3. A student uses a stove to heat up their macaroni and cheese. Which of the following objects uses the same source of energy as the stove?

- A. A teapot using thermal energy
- B. A computer using electrical energy
- C. A wind-up toy using mechanical energy
- D. A plant using solar energy

4. Which of the following tools would best be used to see a plant cell?

- A. A telescope
- B. A magnifying lens
- C. A telescope
- D. A microscope

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Short answer questions:

1. Why was it important that we only change the amount of one of the three compounds when testing the liquid crystals?
2. Why are we seeing different colors when the liquid crystals experience different temperatures?
3. What does it mean that liquid crystals are thermosensitive?
4. What does it mean that liquid crystal is an 'in between phase'?
5. Explain what is happening to the light when it hits the liquid crystal?

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6. Draw what the liquid crystal phase would look like and explain why it looks that way.

