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|  | Guided Reading : Phases and Energy | Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| To be completed while reading the class textbook **‘Chemistry’ by Wilbraham (if you’re at home doing this, check the website for the textbook as a PDF)**You should memorize these answers, like it’s class notes, for a quiz on Friday and for the Test on October 22.Checked at the end of class but not handed in; show it to me for a stamp. |
|  **(p. 267), Kinetic Theory Rule #1** | A gas is composed of \_\_\_\_\_\_\_\_\_\_\_\_\_\_.What is the volume of these particles? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What is between the particles? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_How attractive are gas molecules to each other? (not at all / slightly attractive / veeeerrrrryyyyy attractive ) |
|  **(p. 267), Kinetic Theory Rule #2** | At room temperature, what is the velocity of an oxygen molecule? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_🡨 this is not how molecules of a gas travel Draw how they really travel:   |
| **Energy of liquids (p. 274) second paragraph*** what are the three things that molecules do that gives them *kinetic energy*?
* copy the definition of *kinetic energy* from the glossary
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|  **(p. 271), Last Paragraph**  | When temperature increases, what else increases? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_As a particle cools down, what happens to its velocity? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What is special about the temperature -273 °C? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What temperature is absolute zero in Kelvins? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ In degrees Celsius? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **“The Dance” (p.274) second paragraph*** What pulls molecules close together according to the book (two word technical term).
* According to the book, what can fight against the force you just named?
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| **p. 272** | When Kelvin temperature doubles, what happens to the kinetic energy?  |
| **p. 74** | If some lemonade is 310 kelvins, what is its temperature in °C?If a hamburger is supposed to be cooked until it is 90 °C, what is this in kelvins?  |
| **Changing phase (p.280)*** At the *melting point* what thing overcomes what other thing? Write in a complete sentence.
* If you know that the freezing point of pure titanium is 1668 °C, what do you know about the melting point?
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| **Page 284**Look at the three colored parts of Figure 10.18 | What are the three common phases of matter? \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
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| Teacher’s Stamp: |  |

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