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|  | | | Guid  ed  Read  ing : 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 | | | |  | | | |
| **(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? | | | | |  | | |
| **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? | |  | | | | |
| **Page 284**  Look at the three colored parts of Figure 10.18 | | What are the three common phases of matter? \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | |
|  | | |  |  | | --- | --- | | Teacher’s Stamp: |  | | | | | |