States of Matter 4 SQ Video Notes

Watch the video:

1. **Answer the questions below.**

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| **1**  | ***Question #1: What does the video say?*** | ***Question #2: How does the video say it?***  |
|  |  *Write key points from the video*  |  *Cite examples of how the video said the key points. Did it use graphs? Images?*  |
| *Your Response* | ***Particles in a solid are closely packed and can vibrate but cannot move around, they have low energies. Forces between the particles hold them together, so solids cannot flow. Particles in a liquid are still closely packed, but can vibrate and move around within the liquid because they have more energy—enough to overcome the forces that held the particles together in the solid. Particles in a gas are widely spread out and can both vibrate and move around freely. They have the most energy of the three states.***  |  ***Evidence of how particles move in a liquid or solution diffusion: the crystal dissolves, and the purple permanganate ions diffuse slowly throughout the whole volume of the water. They do this because both the water molecules and the dissolved particles of permanganate are constantly and randomly moving throughout the whole volume.***Good example, but what about for solids? |

1. **Re-watch the video and answer the questions below.**

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| **2**  |   | ***Question #3: What does the video mean?***  | ***Question #4: What does the video mean to me?***  |
|   |   | *Write down (in your own words) the key points you listed.*  | *Write a critique of the video. Did it provide information well? Did it make sense? Did it help your understanding of the concept?*   |
| *Your Response*  |               | In this video we look at the arrangement and the energy of the particles in solids, liquids and gases. We then look at how the different states of matter make it possible to separate various mixtures using techniques such as filtration, distillation and chromatography. |  I really enjoyed this video. This video explained the material very thoroughly and made it very easy to understand. The instructor presented the topic very nicely. In what way did the video explain it that made it easy to understand? |

Source: PEARSON EDUCATION

**Video Summary**

Summarize the video in 3 paragraphs. Be sure the first paragraph includes what the video was about (Square #3) and uses evidence from the video (Square #1) to support your view of the video. Paragraph #2 should state how the video provided the information to you (Square #2). And Finally, Paragraph #3 should be a critique of the video (Square #4) and cite possible ways to improve how to demonstrate ideas OR it should provide examples from the video that were effective.

How does the states of matter affect the methods of separation?

 In this video we look at the arrangement and the energy of the particles in solids, liquids and gases. We then look at how the different states of matter make it possible to separate various mixtures using techniques such as filtration, distillation and chromatography. Particles in a solid are closely packed and can vibrate but cannot move around, they have low energies. Forces between the particles hold them together, so solids cannot flow. Particles in a liquid are still closely packed, but can vibrate and move around within the liquid because they have more energy—enough to overcome the forces that held the particles together in the solid. Particles in a gas are widely spread out and can both vibrate and move around freely. They have the most energy of the three states. Evidence of how particles move in a liquid or solution diffusion: the crystal dissolves, and the purple permanganate ions diffuse slowly throughout the whole volume of the water. They do this because both the water molecules and the dissolved particles of permanganate are constantly and randomly moving throughout the whole volume. I really enjoyed this video. This video explained the material very thoroughly and made it very easy to understand. The instructor presented the topic very nicely.