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| *compounds*CλeMis+ry eagenest@madison.k12.wi.us |  | Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. Using your Venn diagram from your notes, make a chart of every possible type of thing.



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|  | 1. Categorize each square as either mixture, element, or compound:

A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_B \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_C \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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| 1. Under each box write *solid, gas, or liquid*.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  | Circle your choice,These boxes *all* contain aElement?Compound?Mixture? |

***In each case, choose what thing was either added or removed from the UNDERLINED system. Choose the best answer. Some may not have an exact ‘correct’ answer, so give a reason.***

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| For your answer in each question write one of these types of things: (E) energy (I) information (M) matter |

1. New paper is written on by a note-taking college student

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A tennis ball falls off of the school roof and lands on the grass

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. As you walk home, your water bottle leaks and when you get home there is no water in it.

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A taut archery bow releases and sends an arrow flying.

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. After 500 million years of rain and wind, the Appalachian mountains are one third of their original mass.

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. You buy a new cell phone and immediately download a cat video

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A taut archery bow releases and sends an arrow flying. (this is different than the other bow question!)

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A player holding cards in a royal flush ( 10 through Ace, all the same suit, in order) throws down her hand and the cards are shuffled back into the deck

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Your dad memorizes a book that explains how to knit sweaters.

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A forest is chopped down and burned.

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. You fill a bag with sand at the beach.

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A glitch in your computer erases your USB flash drive.

E, I, or M? \_\_\_\_\_\_\_\_\_ added or removed? \_\_\_\_\_\_\_\_\_\_\_ Why you think this: \_\_\_\_\_\_\_\_\_\_\_\_\_\_



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| 1. Under each box write *solid, gas, or liquid*.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  | Circle your choice,These boxes *all* contain aElement?Compound?Mixture? |

|  |  |
| --- | --- |
| 1. Under each box write *solid, gas, or liquid*.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  | Circle your choice,These boxes *all* contain aElement?Compound?Mixture? |

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| For each mixture separation below, choose which property each separation relies on.For your answer in each question write one of theseproperties: (BP) different boiling points (S) different solubilities (MP) different melting points(D) different densities |

1. \_\_\_\_\_\_\_\_\_\_Ethanol can be separated from water by distillation
2. \_\_\_\_\_\_\_\_\_\_Uranium 235 can be separated from harmless Uranium 238 by spinning it in a centrifuge
3. \_\_\_\_\_\_\_\_\_\_Mountain Dew will be sweeter if you freeze it and remove the ice crystals that form .
4. \_\_\_\_\_\_\_\_\_\_ Muddy salt water can be made transparent by pouring it through a filter.

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|  There is a mixture of sugar, sand, and water at “A” | There is a mixture of sugar, sand, and water at “C” |

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| 1. If you tried to separate a mixture of sugar, sand, and water in the above pictures, draw particle pictures to explain what would be in each place.

First draw a key to show  |
| Key: |
| What would we see at A?  | What would we see at B? |
|  |  |
| What would we see at C?  | What would we see at E? |
|  |  |