Physical Versus Chemical Properties

I. Reviewing matter:

**Matter**: anything that has mass and takes up space

* + Mass – the amount of matter in something
  + Volume – the amount of space something occupies

|  |  |  |
| --- | --- | --- |
| Is it Matter? | Yes | No |
| A car? |  |  |
| A box? |  |  |
| You? |  |  |
| Heat? |  |  |

II. **Property**: a characteristic of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that can be \_\_\_\_\_\_\_\_\_\_\_\_\_.

III. **Physical property**: a property that can be observed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ changing

the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the substance.

Examples: luster, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (the ability to be hammered into \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ), \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (the ability to stretch into a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_), melting point, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ point, density, solubility and specific heat.

IV. Special properties:

**Melting point**: temperature at which a substance changes from a solid to a \_\_\_\_\_\_\_\_\_\_ at a given

**H2O** = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Boiling point**: temperature at which a substance changes from a \_\_\_\_\_\_\_\_\_\_ to a \_\_\_\_\_\_\_\_\_\_\_\_\_ at a given pressure.

**H2O** = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

V. **Chemical property**: a property that can be only be observed by

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the substance.

Examples: flammability, ability to rust, reactivity with vinegar

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