Hannah

Physical vs. Chemical

Physical

CHANGE

- a change in which the composition of the substance remains unaltered and no new substances are produced
(ie. water → ice cube)
- can be returned to their original state

PROPERTIES

- characteristic of a substance that can be determined without changing the composition of that substance.

Qualitative

- a property of a substance that's observed using your five senses
(ie. colour, odour, texture)

Quantitative

- a property of a substance that's observed using measuring instruments.
(ie, temperature, height, mass)

Chemical

CHANGE

- a change in the starting substance or substances and the production of one or more new substances
(ie:- Colour change
- odour change
- gas bubbles
- precipitates (turns solid)
- energy change)

PROPERTIES

- a characteristic of a substance that is determined when the composition of the substance is changed and one or more new substances are produced.
(ie, ~~[illegible]~~ reactivity with oxygen)

Physical vs Chemical

Physical

Change

Taking a piece of matter and physically changing the appearence of it but not the real matter

Examples
- folding a peice of paper
- melting a ice cube
- metal work/melting
- candles

How to tell
- same particles
- changes to diffrent phases of matter (ex. Solid, liquid, gas)

Properties

Physical property gives us information about what the substance is like. You can determine it by using your five senses and measuring instruments.

Example
- anything that you can describe using Physical traits

How to describe
- Smell
- what it looks like
- sound
- taste
- feel of the object
- measuring

Chemical

change

A chemical change is always accompanied by a change in the starting substance or substances and a production of one or more diffrent substances

Example
-
- baking soda and Vinegar =

How to tell
- change of colour
- change of odour
- change of temperature
- new formation of matter

Properties

a characteristic of a substance that is determined when the composition of the substance is changed and one or more new substances are produced

Example
- fireworks
- chemical ice packs

Changes Made
- formation
- structure
- set-up

CHEMICAL VS PHYSICAL

examples
- clear egg whites turning white
- baking soda with vinegar

Evidence
* change of colour, odour
* bubbles are visible that are not caused by heating
* new solid is seen
* change in tempature or light

Chemical CHANGE
→ a change in the starting substance or substances and the production of one or more new substances.
→ original substances do not disappear
↳ are rearrange in the process of forming a new substance

Examples
- wax of a candle
- ice melting
- boiling water
- crushing a can

Physical CHANGE
→ a change in which the composition of the substance remains unaltered and no new substances are produced
→ dissolving is a physical change
→ most substances can be returned to their origin state

examples
- baking soda causes cake to rise
- bacterial cultures turn milk into cheese

Chemical PROPERTY
→ a characteristic of a substance that is determined when the composition of the substance is changed and one or more new substances are produced.
→ some are visible, some are not.

Examples
- describing how something looks, the texture and odour

Physical PROPERTY
→ a characteristic of a substance that can be determined without changing the composition of that substance

QUALITATIVE
* a property of a substance that is not measured and does not have a numerical value
↳ colour, odour, texture

QUANTITAVE
* a property of a substance that is measured and has numerical value
↳ tempature, height and mas

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