

Unit 4 – Chemistry:

Day 1 – Physical properties of matter

Name: _____

Date: _____

Block: _____

Matter: Anything that has mass and takes up space

States of Matter: solid liquid gas (plasma)

Physical Properties: features that you can measure or observe without changing the chemical identity

Qualitative

Qualitative Property	Definition	Type of Matter	Description
Texture	how rough or smooth	a) Sand Paper b) Plastic Wrap	rough smooth
Colour	what is the colour	a) Raspberry b) Your Shirt	red (white) black
Luster	how shiny (ability to reflect)	a) Aluminium Foil b) Lined Paper	high luster minimal luster
Odour	what does it smell like	a) Popcorn b) Burning Match	buttery smokey
Clarity	how much light can shine through it	a) Your Textbook b) Frosted Window c) Pane of Glass	opaque translucent transparent
Malleability	how easy it is to mold or shape	a) Silly Putty b) Wooden Spoon	very malleable no malleable
Ductility	ability to be drawn into a thin wire	a) Toffee b) Thin Wire c) Marble Tile	ductile ductile not ductile

Quantitative

Quantitative Property	Definition	Type of Matter	Description
Melting Point	temp at which goes from solid to liquid	a) Ice b) Chocolate	0 30-32
Boiling Point	temp at which goes from liquid to gas	a) Water b) Ethanol	100 78.37
Solubility	the amount of substance that can be dissolved completely in another	a) Sugar	200g/100ml of water at 20C
Hardness Factor	resistance to being scratched ex rocks: mohs hardness scale	a) Steel b) Maple Flooring c) Marshmallow	very hard medium hard soft
Mass	amount of matter in a particle or space Not the same as weight	a) Bag of Sugar b) A Small Dog	2 kg 9kg
Volume	amount of space a substance occupies	a) Can of Pop b) One Raisin	355 mL 1 cm ³
Density	amount of matter in a given space density = mass/volume	a) Pure Water	1g/mL