	Name			Science 9		
	Chemistry and	d Matter (Section 5.3	1, 5.2, and 5.3)	Total: /80		
	Multiple Choice Put your answer in the s	pace provided.				
	1. What can cause a) Adding heat	matter to change from one b) Removing heat	state to another? c) Both a and b	d) Nothing		
06	2. Which statemen a) Particles of a gas b) Particles of a liqu	t describing the Kinetic Mo are moving very quickly in tid vibrate in one position are not attracted to each o	elecular Theory is incorrect? Is straight-line motion			
	3. Which of the foll a) It is malleable	lowing is a chemical proper b) It melts 1540°C	ty of iron? c) It is conductive	d) it can become rusty		
		at which a substance chang at which a substance chang h oxygen				
	5. The rapid reaction to acid	on of a substance with oxyg b) flammability	gen is: c) colour	d) density		
	6. The ability of a sa) Conductivity	ubstance to dissolve is: b) Solubility	c) State	d) Density		
	7. A physical prope a) one you can obse b) one you can meas c) can be detected u d) all of the above	rve with your senses				
)	a) An element	e can be: b) A mixture	c) air	d) water		
	a) a pure substanceb) hot waterc) cold water	er dissolve faster in: temperature does not mat	ter.			
	10. The 787 is a new airliner. Much of it is made of carbon fibre panels. What combination of properties make this a good choice?					
	 a) high density and b) flammable and lo c) low density and h d) high density and 	malleable w density nigh strength				
	11. Which of the fo	ollowing is a state of matter b) Sound	? c) Paint	d) Energy		

c) Paint

d) Energy

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	of the following is a b) Book		c) X-ray machine	es d) water	
a) Light	D) DOOK		· ·		
13. A mater	rial made up of onl	y one type of a	atom is:	•	
a) a homoge	neous mixture		•		
,	eneous mixture			•	
c) matter		•			•
d) an elemer	nt_			Multiple Choice:	/1:
				Multiple difolect	/
1 What type of n	roperty is (chemic	ral or nbysic a	I) is: hardness?		
a. chemical prop		b. physical p	property		
a. chemicai prop	City				
2 What type of n	roperty is (chemi c	cal or physica	l) is: conductivity?		
a. chemical prop		b. physical p	property	•	
di dilainian prop				••• •	
3. What type of n	roperty is (chemi	cal or physica	d) is: corrosion?		
a. chemical prop		b. physical p	property	•	
	•				
4. What type of p	roperty is (chemi	cal or physica	d) is: <i>melting point?</i>	•	
a. chemical prop		b. physical p	property		
				•	
5. What type of p	roperty is (chemi	cal or physica	ıl) is: <i>malleability?</i>		
a. chemical prop		b. physical p	property		
	roperty is (chemi	cal or physica	d) is: ductility?		
a. chemical prop	perty	(b. physical)	property		
		1b	Cita this descriptions	waan diasalwaa in hat watar	
				sugar dissolves in hot water	
a. chemical proj	perty	b. physical	property .		
Q What time of n	roporty (chemic a	l or nhysical)	fits this description.	imestone reacts with acid t	o fort
carbon dioxide		SAX	ms tins description.		
a. chemical pro		b. physical	property	•	
(d. ellenmear proj	Povel	- AZX		•	
9 What type of r	property (chemic a	l or physical)	fits this description: a	a wooden handle does not	
conduct heat w	ell. So it is safer t	o use than a n	netal handle.		
a. chemical pro		b. physical	property		
-			•		
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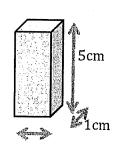
Name



Science 9

Density

1. The mass of an object is 10.0g. What is the density of the object? Show all of your work (2 points)



m=10.0g $V=5cm \times 1cm \times 1cm$ = $5cm^3$

2-If heat was added to the object, the particles would (circle the correct answer) 1 point

- a) have more energy
- b) have less energy
- c) have the same amount of energy

3. This would make the object(circle the correct answer) 1 point

a) more dense

1cm

- b) less dense
- c) nothing would change

4. What is the volume of a 20.0g lump of Marium? (Marium has a density of 10.0 g/mL) 2 points

$$V = \frac{m}{d} = \frac{20.00}{10.00 \text{ mL}}$$

 $V = \frac{m}{d} = 20.09$ 10.09/mL 1.1 V = 2.09/mL

5. An object has a mass of 300g, but it was difficult to measure the volume. So you put it in a pot that had 100.0 mL of water in it and the water in the cylinder rose to 250.0mL. What is the density of the object? 2 points

V= 250.0ml-100.0ml 150.0ml =150.0ml D= 29/ml

True or False

In the space provided, indicate if the statement is True (T) or False (F). If the statement is false, correct the statement in the space below (1 point each)

1. Atoms in a liquid are farther apart than the atoms in a gas _____

Coser together

2. Pure substances and compounds are both elements

Flements

Pure substances

3. Elements have one kind of particle ______

4. You can see different substances in a heterogeneous mixture such as soil

5. The oxygen molecules that came from a tree are the same as oxygen molecules that came from pond scum in a nearby drainage ditch _____

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6. The temperature at which a substance chant substance Corrosion is a chemical property that des		•		ì
Corrosion is a chemical proper	ely describing a re	achon w	ires E milio	ingita
7. Eorrosion is a physical property mat des	cribes now metals can be un	avvii iiito vv.	for corr	rection
Ductility is a physical 8. Cooling removes energy from a substance				
8. Cooling removes energy from a substance	e, causing the particles to me	TVC CIOSCI to	Section	
9-Solids will take the shape of the containe	r they are put in			•
Liguids and gases.				
ratios are igno			Total: /9)
Matching				
Refers to a slow reaction with oxy	gen	Α	Flammability	
K Can be drawn into wires		В	Boiling point	
Can be made into thin sheets		. С	Matter	
Cannot be measured directly. It m	ust be calculated.	Е	Malleability	
Refers to a substance that is resist		F	Density	
Anything that has mass and takes	up space	G	Gas	
A state of matter that has a definit	te shape	Н	Corrosion	
A state of matter that has no defir	ite shape or volume	I	Non-flammable	
		· J	Ice	
with the second		K	Ductility	
			Total: /8	
			·	
Identify each of the following as an element	t, compound, homogeneous m	iixture, or he	terogeneous mixture	
Silver	element			
Carbon dioxide (CO ₂)	element			

Silver	element	
Carbon dioxide (CO ₂)	compound	
Oxygen (O ₂)	element	
Seawater	homogenous mixture	
Helium	element -	
Oatmeal Raisin cookie	heterogeneous mixture	
Macaroni and cheese	heterogeneous	
Water (H ₂ O)	compand	
Apple juice	homogenous mixture	
Air we breathe	homogenous.	

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Rutherfordium	alamant
Soil	heterogenous mixture.
	Total: /8
Short answer (1 point per blank)	
1.	
A B Image A is referring to matter in what some a second to m	state? Solid
Image C is referring to matter in what s	state? <u>gas.</u>
A B	C D
2. Which of the image(s) is an image of a mixtu	re?
Which of the image(s) is an image of a compou	nd?
Which of the image(s) is an image of an elemen	t? A and B
3. Which state has the least energetic molecule	s? <u>Solid</u>
4. Which state has the most attractive forces be	tween the particles? <u>Solid</u>
5. Complete the diagram below. This is a diagra	m that shows the classification of matter:
	matter
mixture	puve substance

Morrogenous
Total: /15 Mixiwe

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Medium Answer: 6. What are the two defining properties of r	natter? 1 point
anything with mass	and volume
7. A solid piece of copper is heated but does substance as it is being heated? (You can us	not change state. What is happening to the particles in the e images to help explain your answer) 2 points
the particles in the solid	result the solid expands stightly
but the particles do not	have enough energy to overcome
attractive forces and 8 lide	past each other (like a liquid)
8. An ice cube is heated to a temperature so the particles as it is changing state? (You ca	high that it begins turning into water. What is happening to in use images to help explain your answer) 2 points
The particles in the solid (ice cube) are gaining enough energy. , slide past each other. The particles their orthachve lorces.
that they change stake	, slide past each other. The particles
have able lost some of	their attractive forces.
9. Describe the motion of particles in the thanswer) 3 points	ree states of matter (You can use images to help explain your
Solid 868	liquid 26 gas
-vibrating	slide past past past each other
-close together	
	-Stranger IIIC
lowest energy state o	f energy -particles have a l
explain your answer. 2 points	ng the Kinetic Molecular Theory. You can use images to help
particles gain energy as	heat is added. As a
result liquid for other	heat is added. As a material) in a thermometer
expands and rises 17	40°C
(av)	-20°C -20°C :