Name:	Date: S#:
	III Final Exam Study Guide 2018 - 2019
Topic: Intro to Matter (ISN page/s) http://www.ba	
Matter:	
Melting Point:	
Mass:	
Gas:	
Condensation:	
Volume:	
Deposition:	
Solid:	
weiting	
Freezing Point:	
Freezing:	
Condensation:	
Boiling Point:	
Liquid:	
Evaporation:	
Sublimation:	
PARTICLE THEORY of MATTER describes both the	and of
matter.	
• All particles have	between them. • All particles are in
• All particles have	them. • As a particle
energy, it	• When particles are to one
another, the betwee	between them. • All particles are in them. • As a particle to one en them
TOPIC: Phase Change, Kinetic/Thermal Energy, Temp (IS	N page/s) http://www.batty4science.com/7th-grade-science-blog/wednesday-31319
Within, atoms are	in of
depends on the and its current	(,, or).
GAS: Particle Motion: molecules are in	in The of (, or). Molecules have lots of due to the movement of particles.
Molecules are spread Thermal energy is	due to the movement of particles.
Liquid: Particle Motion: molecules or over	one another. Molecules have more than a solid but
than a gas. Thermal energy is due	a to movement or particles.
Solid: Particle Motion: molecules are	together and in place. Molecules have an
. Thermal energy is	due to the movement of particles.
Kinetic Energy:	. The of matter depends on the
and the	The of matter depends on the
and the or or	 ·
Thermal Energy:ar	nd We feel
when thermal energy is Heat always mov	nd We feel ves from regions of temp to temp.
Temperature:	ves non regions of temp to temp.
remperature.	
Temperature is the	of the in a
Tonic: Modeling Molecules I#12/13 (ISN page/s	of the in a
http://www.battv4science.com/7th-grade-science-bloo/tuesdav-31919-i13-modeling-molecules-with-candy http://www.battv4science	ce.com/7th-grade-science-blog/wednesday-32019-i13-modeling-glucose-and-isn-check-10-assigned-and-tri-ii-reflection
Liement.	
Atom:	
Molecule:	
Lewis Dot Structural Model:	
Molecular Formula:	
Periodic Table of Elements:	
Atomic Number:	
Physical Properties of Metals: • Lustrous:	
•Good Conductors of Heat and Electricity:	
•High Melting Point:	
• High Density:	
• Malleable:	
• Ductile:	in ite
WATER: The key to understanding water's ()	IS IIS A
water consists of two a	atoms to an atom, and the overall
is is This is because the oxygen at	tom, in addition to forming with the hydrogen atoms, All of the electron (shared and unshared)
	nat puts them apart from each other. This gives the

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end of the water	a partial	charge, while the	end has a partial
cnarge. Water is classified as a	a molecule be	cause of its polar	bonds and its snape.
GLUCOSE: Glucose () is a simple	sugar, is one of the	most important and
is used as a source of	in animals and plants.	Glucose is one of the main pro	oducts of and starts
	The natural form (D-gluc	cose) is also referred to as	, especially in the food
Ammonia:			
Methanol:			
Model of Water	Model of Glucose	Model of Ammonia	Model of Methanol
TODIC: Estanded Structures	Diamond and Cranbita	(ISN page/s	
TOPIC: Extended Structures -			nded-structures-diamond-and-graphite
DIAMOND: Diamond is an	(different form) c	of The word	comes from the Greek word
meaning . In	fact, diamond is the harde	est material know	n and is often used for
cutting and polishing	. This com	es from the	in diamond being arranged in
a strong,		Naturally occurring diamonds a	are formed over of are often brought closer to the Earth's
years under intense	and deep	p within the They	are often brought closer to the Earth's
by deep	eruptions. In effec	ct, a sone gia	nt of .
For this reason, there is no		for diamond other than C (s,	diamond) where the s means present
The Carbon b	onding repe	eats itself (and is the only	present
in Diamonds). It	is this bonding pattern tha	at gives its	
GRAPHITE: Graphite, also calle	ed plumbago or	, is a	composed exclusively of the
element Graphite is	one of the	of carbon. Graphite has the	same
as Diamond, which is also	carbon, but the		of Graphite and Diamond is entirely
different. This causes almost	characte	eristics in their physical	Graphite has a
structure that consists of	of carbon a	toms arranged in widely spaced	sheets. Graphite
Crystallizes in aCropbite in	_ pattern, in contrast to the	e diamond where the same ele	ment crystallizes in a, while diamond may be colorless and
Graphite is	dark gray to black,	, and very	has a feel and leaves a
and is the hlack mark. This is how this min	Haturally	from the Greek verb graphein	, which means
	iciai was giveri its riame,	nom the Greek verb graphem	, which means
Model of Diamond Bonding Pattern		Model of Graphite Bonding	ı Pattern
Wooder of Blamona Bonaing Fattern		Wooder of Grapfine Boriains	, ration
TOPIC: Properties of Matter -			
http://www.batty4science.com/7			
Color:	· · · · · · · · · · · · · · · · · · ·		
rexture:			
Luster:			
Density:			
Electrical Conductivity:			
Solubility:			
Viscosity: Odor:			
Molting/Fronzing Point:			
Melting/Freezing Point:			
Boiling Point: Tarnish:			
Tarnish: Magnetic Ability:			
Magnetic Ability:			· · · · · · · · · · · · · · · · · · ·
Thermal Conductivity:			
Malleability:			
Duot:			
Acidity or Basicity (pH):			
Physical Property:			

Name:		D:	ate:	_	S#:
Chemical Property:					
TOPIC: The Periodic Tabl	e of Elements ((ISN page/s)			
http://www.batty4science.com/7t	<u>th-grade-science-bl</u>	log/tuesday-40219-periodic-	table-of-elements-corn	ell-notes-and-co	lor-coded-table
Periodic Table of Elements	:				
Atomic Number:					
Dmitri Mendeleev:					
Henry GJ Mosley:	• • • • • • • • • • • • • • • • • • • •				
Groups:					
Doriodo:					
Electron Dot Diagrams:					
BE SURE THAT YOUR PE	RIODIC TABLE	OF ELEMENTS IS PE	ROPERI Y COLOR		
CODED			tor Little Golon		
TOPIC: Sinking and Float					
http://www.batty4science.co	<u>om/7th-grade-sc</u>	cience-blog/tuesday-42	<u>319-investigation-16</u>	<u>8-debrief</u>	
S/F Marshmallows: If	stays the _	, and we	, we	can get a	object to
D/I Balloon: Forcing air () into t	the balloon will the	and	the	of the balloon.
S/F Eye Dropper: If	stays the	, and we	, we ca	ın get a	object to .
If sta	avs the	and we	, we can get a	·	object to
S/F Spheres: Volume is a r	neasure of the		and object	. V	olume of a sphere is
but can b	e taken using th	ne	,		which can be used
to measure the	of any oh	piect by calculating the	amount of	it displac	which can be used ces.
S/F Rectangular Prisms: Dr	Orany ob ensity is how	Joor by calculating the t	and object's	it diopiat	are The formula for
S/F Rectangular Prisms: Do Density is	21131ty 13 110W	More dense objects	wh	ila lass dansa	objects
To coloulate the volume of	a rootangular pr	More derise objects	wii	iie iess delise	objects
C/E Clay Poster If	a rectangular pri	isins you use the formu		ant o	abiaat ta
S/F Clay Boats. II	stays the	, and we the _	, we can	get a	object to
		results in	·		
M/V/D of Coke and Coke Z					
<u>C:</u>					
E:					
E:					
R:	 				
TOPIC: Density Triangle a					
http://www.batty4science.co					
DENSITY is a	of a	It is the _		between the s	substance's
and how much	_ it takes up (). It is usually	/ measured in	per	or per
MASS is the	of	or "stuff" that	at is in a	. Th	e units of
measurement for	are	or			
measurement for		that a	occupies. The sta	ndard	of measurement for
are			_ 000040100. 1110 010		or modear among re-
urc	01	·			
Density Formula		Mass Formula		Volume Form	ıula
TODIO: O a la la lilita d'ION a a					
TOPIC: Solubility (ISN pa		Nonce blestones	E0440 (47 == 1b.)	alob seminter	on and turn in and in a limit
	om//tn-grade-sc	<u>cience-biog/wednesday</u>	<u>-50119-i17-solubilit</u> y	<u>y-lab-completi</u>	<u>on-and-turn-in-and-isn-check</u>
-11-assigned					
Matter can be sorted by its		which are words that	: describe the		of matter. Solubility is a
property of matter that desc	cribes how easily	y a material will	in water (or	r another).
High Solubility means that a	a substance will	dissolve	and		
High Solubility means that a Low Solubility means that a	substance will	dissolve, I	out not	or	
No Solubility means that a	substance does	dissolve	at		
TOPIC: Acids and Bases	(ISN page/e	١			
			210 goids and has	oc notes and	atudanttaaahar aanfaransaa
ACIDO:	<u> </u>	<u>verice-pioà/tiint809à-20</u>	2 13-acius-aliu-base	<u>-5-110162-9110-</u>	studentteacher-conferences
ACIDS:	O de la constant	an fauthor (and the second of		acids •React with ses an so it has a
•наve a pн than _	Substanc	es rartner away from _	on the pH scale	are	acids •React with
charge.) •	tas	te • React with	tc	тоrm a	and• A re than pH of 5
pH change of equals	a 10 told change	e in the amount of	A pH of 4 is _	mo	re than pH of 5
Acids are substances that _					

Name:		Date:		S#:
The strength of an acid is based on _				
				
BASES: to to one bonded to one by tasting) • React with	/ sup at a s the a s	\ Deleges	: (abanaad isaa maada af
• Have a pH from to	(greater than). • Release	ions (charged ions made of
by tacting) • Poset with	to form a	•	taste (t	JANGER 00 NOL
the amount of A pH of 9 is	more	than a nH of 8 • A	Change ofe	quais a 10 loid change in
Bases are substances that		than a pri or o * P		
The greater the concentration of				
The pH Scale: pH stands for ba	of	pH is a m	neasurement of the	acidity or
of an aqueous (ba	sed) liquid compound.	REACTIONS: An acid	d mixed with a base	produces a salt and water
This is called number of a	A NEUTRAL has	a pH of and is no	ot an or a _	A neutral has an
number of a	nd prese	nt in the solution. INDI	CATORS: a compo	und that changes
when in contact with an acid or a base	e. LITMUS PAPER is	an indicator that		
how		ATOR is a mix of indica	ators that changes a	variety of colors to snow
how	 	 		
TOPIC: pH and pOH Scales PHeT S			nce.com/7th-grade-scie	:nce-blog/tuesday-51419
Scientific Notation:				
TOPIC: Properties of Water Doodle				
http://www.batty4science.com/7th-gra				reative-output and I#21
Polar Molecule:				
Universal Solvent:				
Naturally Occurs in ALL 3 States:				
Heat Capacity:				
Density:				
Cohesion:Adhesion:				
Surface Tension:	 			
Hydrogen Bond:				
Hydrophilic:				
Hydrophobic:				
Surfactant:				
TOPIC: The Mole (ISN page/s Mole:			cience-blog/monday-52	<u>:019-moles-history-and-practice</u>
Amadeo Avogadro:				
KNOW HOW TO CALCULATE A MC	OLE OF A SIMPLE MO	OLECULE!!!!!!!!!!!!!!!!	(11111111111111111111111111111111111111	!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
TOPIC: Chemical/Physical Changes	s & Mixtures (ISN pa	ge/s) http://www.b	oatty4science.com/7th-g	rade-science-blog/friday-52419
Chemical Changes:				
•They can cause	NOT easily	•	products	s are
• Formation of,				
Physical Changes:				,
•They are often just a	• T	hev can be		(mostly) • No
products are	• They can	colo	change.	(
MIXTURES: SOLUTIONS are	mixtu	res in which one (the) is c	ompletely
in another (the). S	Solutions can be made	e of	, or	in combination (ex:
). SUSPENSIONS	are	mixtures in w	hich particles	dissolve and
are not distributed. Over	time, the particles in a	suspension can	Out Mos	t suspensions are
in liquids, but also can be				
COLLOIDS are mixtures that are				
but closer inspection reveals a				
HOMOGENEOUS: Mixtures in which sul				
HETEROGENOUS: Mixtures in which su				
	O O O O O O			alouitot.

Name:	Date:	S#:
Solute:		
Solvent:		