

wk1

Grade 8 Science Packet for Distance Learning

In this packet, you will find 5 weeks of work. You can turn the packet in at North School for weeks 1 and 2 on May 8th and weeks 3 and 4 on May 15th. If you have all weeks complete before If you want to take pictures of your work and email them to Mrs. Hawkins please do. Mrs. Hawkins' email is shawkins@tusd.net.

If you have questions, please email Mrs. Hawkins, she will respond to you as quickly as possible. If you need to talk over the phone, or have a Zoom meeting, she can set that up as well.

Please write your first and last name on each paper you turn in. It is important to have that information just in case something is lost.

Dear Students, We want this experience to be a learning one, but, first and foremost, we want to be sure you stay safe and healthy. As you work through the packet, know we are here to answer questions and to help you understand the information. We miss you on campus, and hope to see you soon.

Mr. Jimenez and Mrs. Hawkins

Paquete de ciencias de grado 8 para el aprendizaje a distancia

En este paquete, encontrará 5 semanas de trabajo. Puede entregar el paquete en North School durante las semanas 1 y 2 el 8 de mayo y las semanas 3 y 4 el 15 de mayo. Si tiene todas las semanas completas antes. Si desea tomar fotografías de su trabajo y enviarlas por correo electrónico a la Sra. Hawkins, hágalo. El correo electrónico de la Sra. Hawkins es shawkins@tusd.net.

Si tiene preguntas, envíe un correo electrónico a la Sra. Hawkins, ella le responderá lo más rápido posible. Si necesita hablar por teléfono o tener una reunión de Zoom, ella también puede configurarlo.

Escriba su nombre y apellido en cada papel que entregue. Es importante tener esa información en caso de que se pierda algo.

Estimados estudiantes: Queremos que esta experiencia sea de aprendizaje, pero, ante todo, queremos asegurarnos de que se mantengan seguros y saludables. Mientras trabaja en el paquete, sepa que estamos aquí para responder preguntas y ayudarlo a comprender la información. Extrañamos a todos nuestros alumnos y esperamos verlos pronto.

Jiménez y la señora Hawkins

Teacher

Subject: Science

Dates 4/20/20 – 5/22/20

5 Week Planner **SAVE**

Welcome to our Distance Learning Classroom!

Student Time Expectation per day: 30 minutes

Content Area & Materials	Learning Objectives	Tasks	Check-in Opportunities	Submission of Work for Grades
Physical science: Atoms, molecules, compounds, and elements Paper packet or electronic version of 5 week lesson.	-Students will develop models to describe the atomic composition of simple molecules and extended structures. -Students analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. - Students develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved.	- Unplugged Option - Digital Option - Blended Combination ***First 2 weeks assignments due, electronic & paper drop off, Tues. May 5th	- Phone Call/text - Virtual discussions - Email **Last day to drop off paper, turn in electric, assignments May 15th.	- I am looking for signs of effort and hard work. - Methods to turn in work: 1. email with attached word document or photo of work attached. 2. photo of work texted to me. MUST BE CLEARLY VISIBLE. 3. Finally, drop off paper copies at North School.
Remember you can find You Tube videos that can show you how to find and use Microsoft Word, attach items to your emails to send to me or how to copy and paste information onto a document. Plus anyt else you may need.	Small, Smaller, Smallest Electronic option. For some parts of these lessons you must write out the answers. Option 1: write it NEATLY on paper then take a picture of it, save the picture and attach it to an email to send to me or attach to email.	Lesson Small, Smaller, Smallest Paper Packet Option Read, annotate and/or take notes on reading. Remember to use color, diagrams, and labels in notes.	<u>Office hours:</u> Mon.-Fri. <i>Open</i> Contacts: Email: <i>shaukins@usd.net</i>	
The learning just never stops ☺	Option 2 : open a Word document and type out your answers, save the doc and then attach it to an email to me.	Look up any vocabulary you are not sure of or use the last page of packet for <u>some vocab. and definitions</u>		
Scaffolds & Supports	Avid strategy, annotation of text. Reading the article more than once. Using color and visuals in notes.			

"Mark the text", an Avid strategy to annotate reading materials to improve understanding and critical thinking. We have used this all year. Optional videos to help understanding of current topic. Examples: Khanacademy.org, thecrashcourse.com, pbs.org and many others. Just put the topic in the search box on the site.					
Suggested daily schedule. Don't get behind, they must be handed in on time. Work Hard, Show Effort NEATNESS if I can't read it I can't grade it.	Week 1 4/20 – 4/24 <u>Mon.</u> – Read Pg. 6-8, slowly and carefully. Read a sentence, think, did you understand it? No, read it again. <u>Tues.</u> Look up any words you don't know. There is a vocabulary list on the last page with definitions to help you. Take notes or write in the margins the meanings of any vocab. word you don't understand to help in your learning. <u>Wed.</u> Re-read the article and annotate it and/or take notes. Use diagrams, color and pictures to help in your understanding of this concept. <u>Thurs.</u> Review your notes and the reading. Answer the questions on page 8. <u>Friday</u> write a paragraph that <u>explains to a younger child</u> the difference between an element, compound, atom and a molecule.	Week 2 4/27 – 5/1 <u>Mon.</u> Read pg. 9-10 slowly and carefully. Re-read any areas you don't understand. <u>Tues.</u> Look up any words you are not sure of its meaning and take notes or write in the margins of the reading to help understanding. <u>Wed.</u> Re-read the article pages, annotate it and take notes on the concepts presented. Use color and visuals for your notes to help in understanding. <u>Thurs.</u> Review your notes and the reading to begin to answer the questions on the Week 2 worksheet. <u>Friday</u> Review and finish the questions on worksheet wk 2. Turn in work for wk 1 & 2 on May 5th	Week 3 5/4 – 5/8 <u>Mon.</u> Read pg. 11–12 slowly and carefully. Re-read if you need it for more understanding. <u>Tues.</u> Read pages again. Look up any words you don't know, check the <u>vocab.</u> list on last page. Take notes or use margins of packet to write the meaning of any unclear vocab. words to support your understanding. <u>Wed.</u> Re-read the article, annotate it and/or take notes using color and visuals to help in your understanding. <u>Thurs.</u> Review your notes and the reading then begin to answer the questions the attached worksheet for week three. <u>Friday</u> Work on the bonus questions at bottom of week 3 worksheet.	Week 4 5/11 - 15 <u>Mon.</u> Read pg. 23 slowly and carefully. Re-read for better understanding. <u>Tues.</u> Read page 23 again. Look up any words you don't know. Check the vocab list on last page. Take notes or use margins of packet to write the meaning of any unclear words to support your understanding. <u>Wed.</u> Re-read the article, annotate it and/or take notes using color and visuals to help in your understanding. <u>Thurs.</u> Review your notes and the reading then write a complete theory and the reasons you think this way, on page 24. You may start Friday's work, the observation. <u>Friday</u> Go outside, find something interesting, observe it closely and write a paragraph that explains your experience, what did you see, why was it interesting, what does it look like, smell like, feel like etc. If you don't know what it is, come up with a theory of what it is and what it is used for based on your observations. Can you connect it to anything we have learned in science this year?	Week 5 5/28 - 22 Over this week your job is to pick one "science focus word" from the last page. Create and draw a cartoon that explains the meaning of the word in the context of the story. Each panel should have a caption to explain the cartoon. Stick people are fine, art is not graded but amount of effort shown in the work will be considered. Captions must explain what is happening in the cartoon and the meaning of the focus word. Don't forget to use color and be creative, have fun. NEATNESS counts.

Señor/a estudiante, nuestro aula de aprendizaje a distancia! 30 minutos Expectativa de tiempo del estudiante por día: 30 minutos

Area de contenido & Materiales	Objetivos de aprendizaje	Tareas	Oportunidades de check-in	Presentación del trabajo para las calificaciones
Ciencias físicas: Átomos, moléculas, compuestos y elementos Paquete en papel o versión electrónica de la lección de 5 semanas.	-Los estudiantes desarrollan modelos de composición atómica de moléculas simples y estructuras extendidas. -Los estudiantes son ingenios e interpretan datos sobre las propiedades de las sustancias antes y después de que las sustancias interactúen para determinar si se ha producido una reacción química. - Estudiantes desarrollan y utilizan un modelo para describir cómo el número total de átomos no cambia en una reacción química y por lo tanto se conserva la masa.	• Opción Unplugged • Opción Digital • Combinación combinada Primeras 2 semanas de entrega, entrega electrónica y de papel, Tues.	• Llamada telefónica /text • Vdeos virtuales • Correo electrónico **El último día para dejar el papel, entregar en eléctrico, asignaciones 15^{de} mayo.	• Métodos para entregar el trabajo: 1. correo electrónico con documento de palabra adjunto o foto de trabajo adjunta. 2. foto del trabajo me entusiasmo. DEBE SER CLARAMENTE VISIBLE. 3. Finalmente, deje copias en papel en North School..
Recuerda que puedes encontrar videos de You Tube que pueden mostrarte cómo encontrar y usar Microsoft Word,	Lecciones Pequeño, Más Pequeño, Más Pequeño Electronic opción. Para algunas partes de estas lecciones debe escribir las respuestas.	Lección Pequeño, Más Pequeño, Más Pequeño Opción de paquete de papel Leer, anotar y/o tomar notas sobre la lectura. Recuerde	Horario de oficina: Lunes a Viernes. Contactos: Correo electrónico:	
adjunta elementos a tus correos electrónicos para enviarme o cómo copiar y pegar información en un documento. Además de cualquier otra cosa que pueda necesitar. El aprendizaje nunca deja	Opción 1: escribala en NEATLY en papel y luego tome una foto de ella, guarde la imagen y adjúntela a un correo electrónico para enviarla o adjúntala al correo electrónico. Opción 2: abra un documento de Word y escriba sus respuestas, guarde el documento y luego adjúntelo a un correo electrónico.	utilizar el color, los diagramas y las etiquetas en las notas. Busque cualquier vocabulario del que no esté seguro o utilice la última página del paquete para algunos vocabulario y definiciones	Shaukins@tuesd.net	
Andamios y Soportes	Estrategia de vida, anotación de texto.	Leer el artículo más de una vez. Uso de color y objetos visuales en notas.		

		"MIMarca el texto", una estrategia ávida para anotar materiales de lectura para mejorar la comprensión y el pensamiento crítico.. Hemos usado esto todo el año. Vídeos opcionales para ayudar a comprender el tema actual. Ejemplos: Khanacademy.org,thecrashcourse.com, pbs.org y muchos otros. Simplemente coloque el tema en el cuadro de búsqueda en el sitio.				
orario diario sugerido. No te deshagas, deben ser entregados a tiempo. Trabajar duro, Mostrar Esfuerzo NEATNESS si no puedo leerlo no puedo calificarlo.		Semana 1 4/20 – 4/24 <u>Mon.</u> – Lea la Pg. 6-8, lentamente y con cuidado. Lee una frase, piensa, ¿la entendiste? No, léelo de nuevo. <u>Los Tues.</u> Busca cualquier palabra que no sepas. Hay una lista de vocabulario en la última página con definiciones para ayudarle. Tome notas o escriba en los márgenes los significados de cualquier palabra vocabulario que no entienda para ayudar en su aprendizaje. <u>Mie.</u> Vuelva a leer el artículo y anote y/otome notas. Utilice diagramas,color e imágenes para ayudar en su understanding de este concepto. <u>Jueves.</u> Revise sus notas y la lectura. Responda a las preguntas de la página 8. <u>El viernes</u> escribe un párrafo que explica a un niño más joven la diferencia entre un elemento, compuesto, átomo y una molécula.	Semana 2 4/27 – 5/1 <u>Mon.</u> Leer pg. 9-10 lenta mente y cuidado. Vuelve a leer cualquier área que no entiendas. <u>Tues.</u> Busca cualquier palabra que no estés seguro de su significado y toma notas o escribe en los márgenes de la lectura para ayudar a entender. <u>Mié.</u> Vuelva a leer las páginas del artículo, anote y tome notas sobre los conceptos presentados. Usa colores y objetos visuales para tus notas para ayudarte a comprender. <u>Jueves.</u> Revise sus notas y la lectura para comenzar a responder las preguntas en la hoja de trabajo de la semana 2.. <u>Viernes</u> Revise y termine las preguntas en la hoja de trabajo wk 2. Entregue el trabajo para wk 1 & 2 el 5 de mayo	Semana 3 5/4 – 5/8 <u>Mon.</u> Leer pg. 11– 12 lentamente y con cuidado. Vuelva a leer si lo necesita para más comprensión. <u>Tues.</u> Leer páginas de nuevo. Busca cualquier palabra que no sepas, revisa la lista de vocabulario en la última página. Tome notas o use márgenes de paquete para escribir el significado de cualquier palabra para apoyar su comprensión. Mire el artículo, anote y/o tome notas usando colores y objetos visuales para ayudar en su comprensión. <u>Revísen</u> sus notas y la lectura luego comiencen a responder a las preguntas de la hoja de trabajo adjunta para la tercera semana. <u>Viernes Trabajar en las preguntas de bonificación en la parte inferior de la</u> hoja de trabajo de la semana 3.	Semana 4 5/11 - 15 <u>Mon.</u> Leer pg. 23 despacio y con cuidado. Re-leer para mejor Comprensión. <u>Tues.</u> Lea la página 23 de nuevo. Busca cualquier palabra que no sepas. Compruebe la lista de vocabulario en la última página. Tome notas o use márgenes de paquete para escribir el significado de cualquier palabra poco clara para apoyar su comprensión. Mire el artículo, anote y/o tome notas usando colores y objetos visuales para ayudar en su comprensión. <u>Revísen</u> sus notas y la lectura y luego escriban una teoría completa y las razones por las que piensa de esta manera, en la página 24. Tú puede comenzar el trabajo del viernes, la observación. <u>Viernes</u> Salir, encontrar algo interesante, observarlo de cerca y escribir un párrafo que explique su experiencia, qué vio, por qué fue interesante, cómo se ve, oler, sentirse como etc. Si no sabes lo que es, inventa una teoría de lo que es y para qué se utiliza en base a tus observaciones. ¿Puedes conectarlo con cualquier cosa que hayamos aprendido en ciencia este año?	Semana 5 5/28 - 22 Durante esta semana su trabajo es pick una "palabrade enfoque científico" " de la página last. Create y dibujar una caricatura que explica el significado de la palabra en el contexto de la historia. Cada panel debe tener un título para explicar la caricatura. La gente de palo está bien, el arte no está calificado, pero se considerará la cantidad de esfuerzo mostrado en el trabajo. Los subtítulos deben explicar lo que está sucediendo en la caricatura y el significado de la palabra de enfoque. No te olvides de usar el color y ser creativo, divertirte. LA PULCRITUD CUENTA.

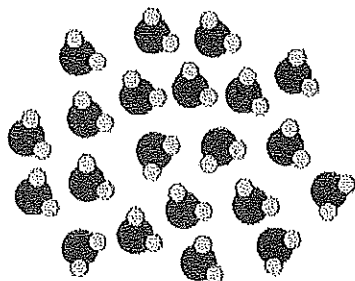
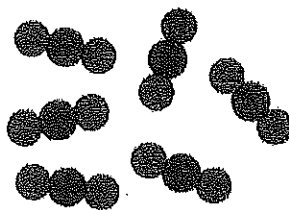
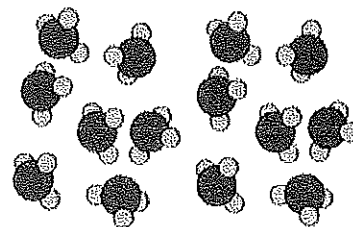
Week 1 Science Read pages 6-8 answer 8 & write a paragraph

Everything is made of **atoms**. **Atoms** are not all identical. In fact, there are over 100 kinds of **atoms**. About 92 of them occur naturally, and the others have been made by scientists in the laboratory. There are hydrogen **atoms**, helium **atoms**, carbon **atoms**, oxygen **atoms**, and so on. Substances that are made of just one kind of **atom** are called **elements**. **Atoms** of the same **element** are all essentially alike, and they're different from **atoms** of other **elements**. (Later on, you'll learn more about what makes **atoms** the same or different.)

Some other **elements** that may sound familiar are nitrogen, neon, silicon, sulfur, copper, silver, gold, and mercury. Less familiar **elements** include technetium, tantalum, astatine, and promethium. Don't worry, you don't have to remember all these names!

If **atoms** were only found in their elemental form, there would only be about 100 different substances in the world. But there are millions of different substances. Chemists study substances and how they change through the rearrangement of their **atoms**. The great variety of substances in the world is possible because the **atoms** of different **elements** join together to form **compounds**. Together, **elements** and **compounds** are called chemicals. A chemical does not have to be some fancy substance cooked up in a laboratory. Everything, from the air you breathe to the materials in your body, is made of chemicals.

Some common **compounds** are water, carbon dioxide (which you exhale with every breath), and ammonia (which is often used in cleaning fluids). **Compounds** have definite proportions of the **elements** that go into them. For example, water always has twice as many hydrogen **atoms** as oxygen **atoms**; carbon dioxide always has one carbon **atom** for every two oxygen **atoms**; and ammonia always has one nitrogen **atom** for every three hydrogen **atoms**. Here are illustrations of each of these three **compounds**:

water (H₂O)carbon dioxide (CO₂)ammonia (NH₃)

The three **compounds** above use **atoms** of these **elements** (their chemical symbols follow the names):

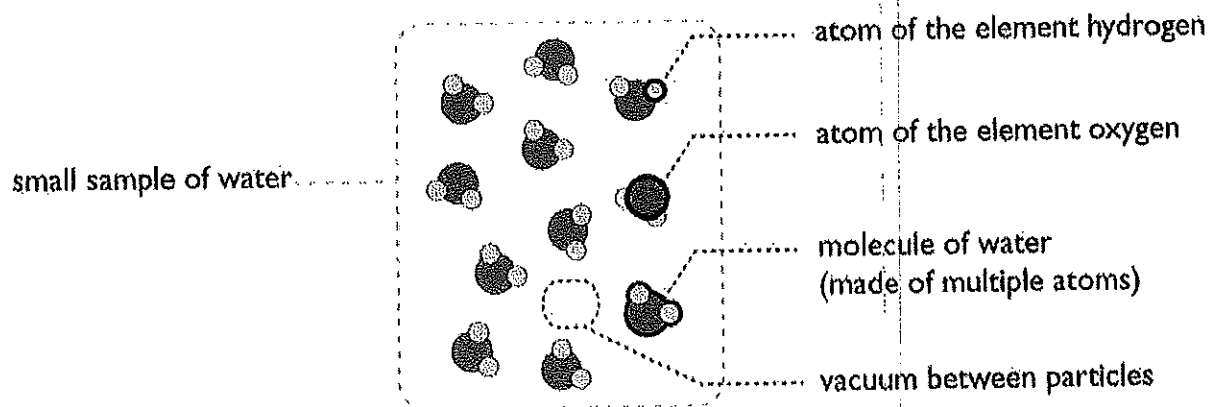
-  hydrogen (H)
-  oxygen (O)
-  carbon (C)
-  nitrogen (N)

Again, **compounds** are made of definite proportions of **elements**. Look at the images above and fill in these ratios with the smallest possible whole numbers:

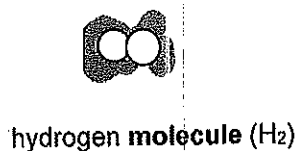
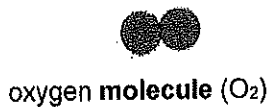
- Water has ____ hydrogen **atom(s)** per ____ oxygen **atom(s)**.
- Carbon dioxide has ____ oxygen **atom(s)** per ____ carbon **atom(s)**.
- Ammonia has ____ hydrogen **atom(s)** per ____ nitrogen **atom**

The **atoms** in all three of our **compound** examples on the previous page are grouped together into larger **particles** called **molecules**. A **molecule** is a group of two or more **atoms** linked together in a **particle** with a clearly defined boundary. Just as **atoms** are the smallest **particles** of **elements**, **molecules** are the smallest **particles** of molecular **compounds** like water, carbon dioxide, and ammonia.

Here's an illustration of a small (a very, very small!) sample of water at a molecular level. Note: The water **molecules** don't float in the water. They **are** the water! Between them there's nothing but empty space, which is called vacuum.

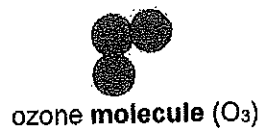
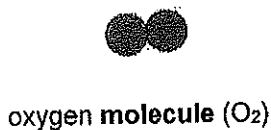
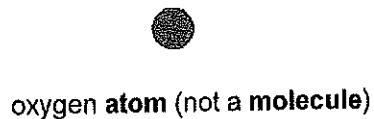


Not all **molecules** are **compounds**, though. Many **elements** (substances made of one kind of **atom**) come in molecular form. For example, oxygen and hydrogen gas are typically found in the form of **molecules** with two **atoms** each.



A less common form of oxygen is "ozone," which is made of **molecules** with three oxygen **atoms** each. There's a layer of ozone gas high in the atmosphere that helps protect our skin from the sun's radiation. On the other hand, ozone at ground level can cause asthma attacks and damage lung tissue. It's one of the main ingredients in the mixture of air pollution known as smog.

All three of these are examples of the **element** oxygen, because they're made without any other kinds of **atoms**:



Actually, scientists knew about **elements** and **compounds** before they knew about **atoms**. They knew that some substances (like water) could be divided into others (like oxygen and hydrogen) that couldn't be further divided into simpler substances. Any substance that couldn't be divided into simpler substances was called an **element**.

Atomic theory clarifies why **elements** can't be separated into other substances: There are only oxygen **atoms** in oxygen, and there are only hydrogen **atoms** in hydrogen. So while scientists originally identified **elements** by their observable behavior, they have come to further define **elements** by the uniformity—the sameness—of their **atoms**.

Answer Questions

What kind of particle?

Working with a partner, complete the table below:

Check off the terms that apply for each of the samples below. The first two are done for you:

Each particle is...	... either an element or a compound , and...		...either an atom or a molecule	
	an element (made of only one kind of atom)	a compound (made of more than one element , in definite proportions)	an atom (the smallest particle of an element)	a molecule (a particle made of more than one atom)
 This particle of water is...		X		X
 This particle of oxygen is	X			X
 This particle of nitrogen is...				
 This particle of ammonia is...				
 This particle of carbon dioxide is...				
 This particle of oxygen is...				
 This particle of hydrogen is...				

Name:

Science Grade _____

Write a paragraph that explains to a younger child, the difference between an element, compound, atom and a molecule.