

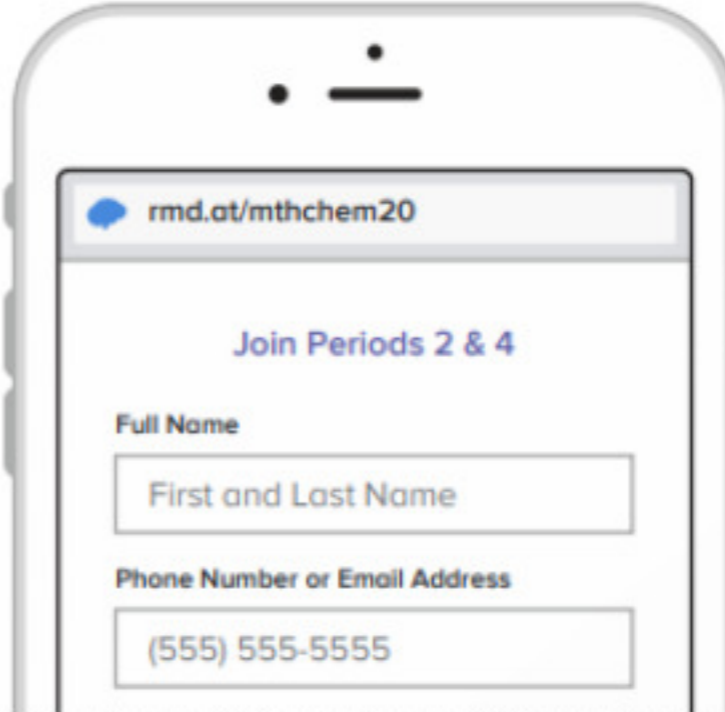
New Remind - per 2

- A** If you have a smartphone, get push notifications.

On your iPhone or Android phone, open your web browser and go to the following link:

rmd.at/mthchem20

Follow the instructions to sign up for Remind. You'll be prompted to download the mobile app.



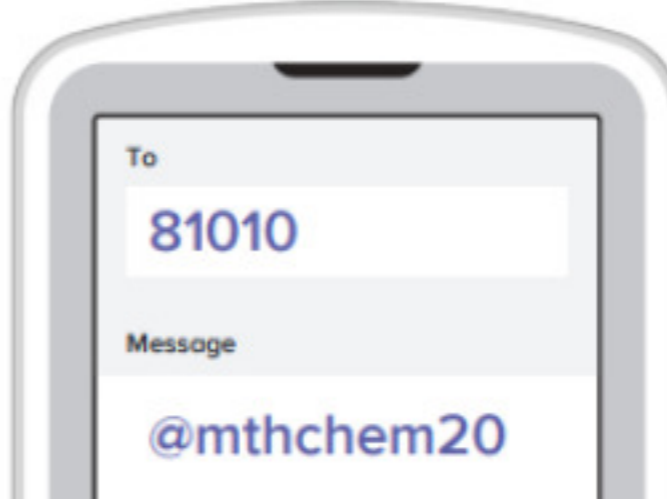
The image shows a smartphone screen displaying a web browser page. The address bar shows "rmd.at/mthchem20". The page content includes the heading "Join Periods 2 & 4", a "Full Name" label with a text input field containing "First and Last Name", and a "Phone Number or Email Address" label with a text input field containing "(555) 555-5555".

- B** If you don't have a smartphone, get text notifications.

Text the message [@mthchem20](#) to the number **81010**.

If you're having trouble with **81010**, try texting [@mthchem20](#) to **(832) 924-0474**.

* Standard text message rates apply.



The image shows a smartphone screen displaying a text message input form. The "To" field contains the number "81010". The "Message" field contains the text "@mthchem20".

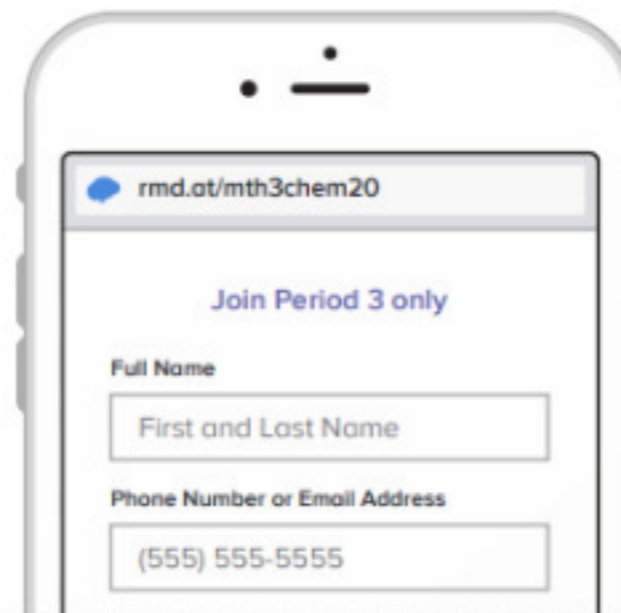
New Remind

A If you have a smartphone, get push notifications.

On your iPhone or Android phone, open your web browser and go to the following link:

rmd.at/mth3chem20

Follow the instructions to sign up for Remind. You'll be prompted to download the mobile app.



B If you don't have a smartphone, get text notifications.

Text the message @mth3chem20 to the number 81010.

If you're having trouble with 81010, try texting @mth3chem20 to (832) 924-0474.

* Standard text message rates apply.



Don't have a mobile phone? Go to rmd.at/mth3chem20 on a desktop computer to sign up for email notifications.

New Remind-per

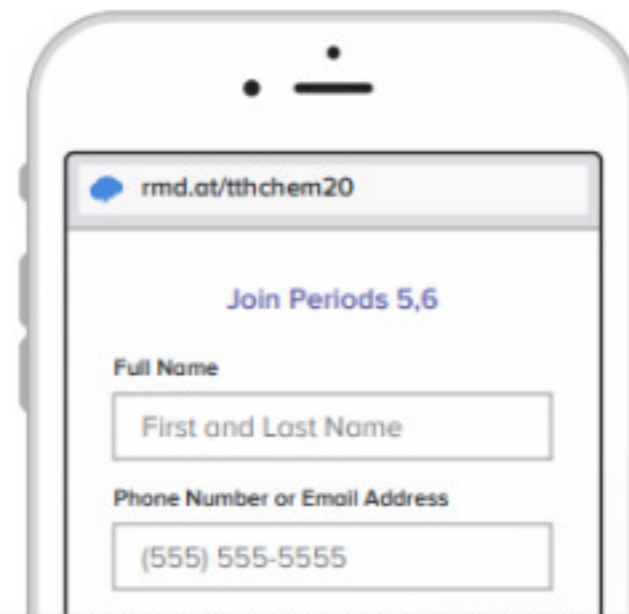
Pick a way to receive messages for Periods 5,6:

- A** If you have a smartphone, get push notifications.

On your iPhone or Android phone, open your web browser and go to the following link:

rmd.at/tthchem20

Follow the instructions to sign up for Remind. You'll be prompted to download the mobile app.



- B** If you don't have a smartphone, get text notifications.

Text the message @tthchem20 to the number 81010.

If you're having trouble with 81010, try texting @tthchem20 to (832) 924-0474.

* Standard text message rates apply.








What you need out for class

1. 2. 3.



Virtual Meeting

<p>BE ON TIME</p>  <p>Wake up early enough to get ready Eat breakfast Log on a few minutes early Use your real name on the screen.</p>	<p>BE PREPARED</p> <p>Be in a QUIET location Technology should be charged No distractions including phones (unless you are using your phone to meet)</p> 
<p>MUTE YOURSELF</p> <p>Keep your mic on MUTE unless you have been called on</p> <p>Use headphones if you have them</p> 	<p>BE PRESENTABLE</p> <p>Wear appropriate clothing Be sure your camera is on Sit up straight and be in camera view for attendance</p> 
<p>CHAT RESPONSIBLY</p>  <p>Raise your hand to speak Type your question in the chat box Stay on topic (no side conversation)</p>	<p>PARTICIPATE</p> <p>Stay focused Ask and answer questions Listen and show respect to peers</p> 



Experimental Design

What is a variable?

Independent variable

- An independent variable is the variable you have control over, what you can choose and manipulate. It is usually what you think will affect the dependent variable.

WHAT YOU CHANGE?

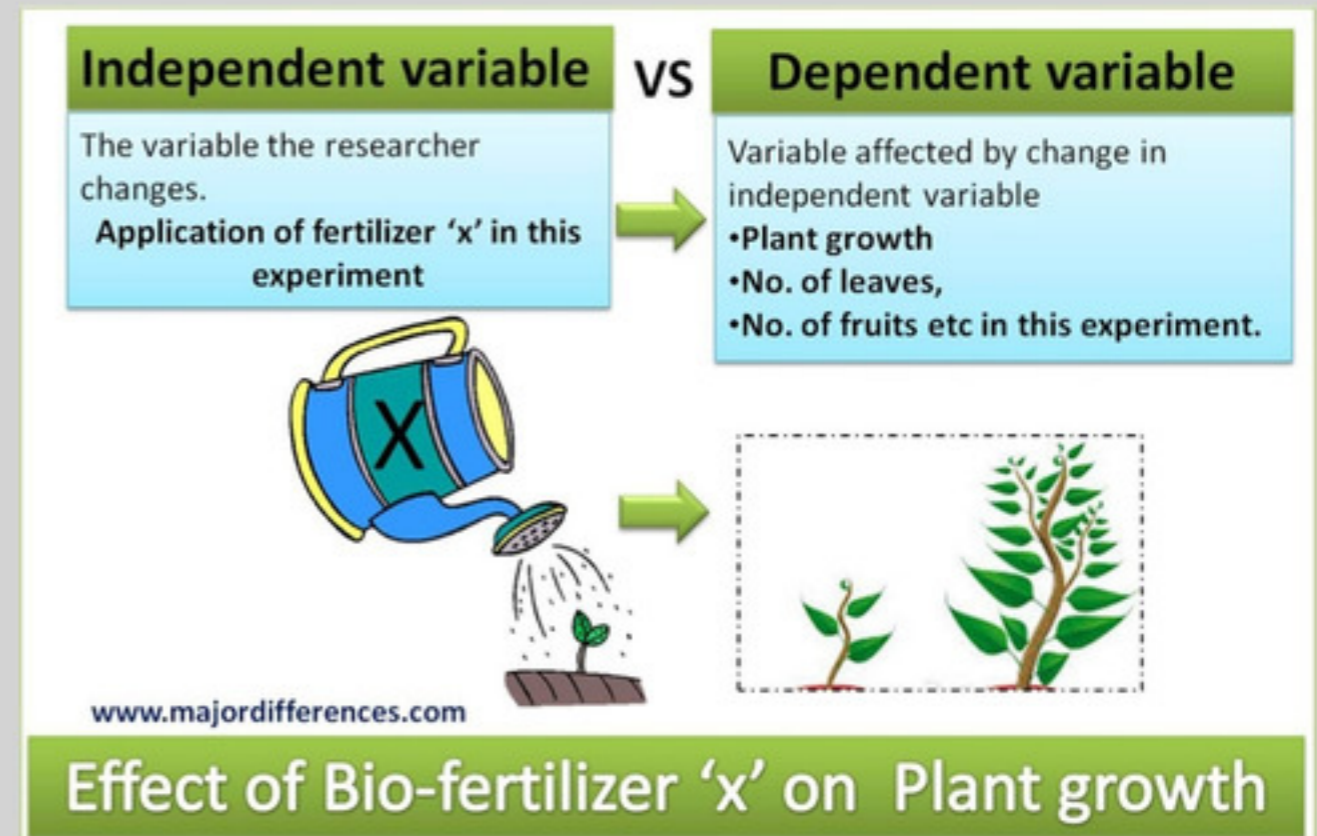
Dependent variable

- A dependent variable is what you measure in the experiment and what is affected during the experiment. The dependent variable responds to the independent variable.

WHAT IS MEASURED?

Independent vs. Dependent

The independent variable causes the dependent variable to change.





- A scientist studies the impact of withholding affection on rats. The independent variable is the amount of affection. The dependent variable is the reaction of the rats.
- A scientist studies how many days' people can eat soup until they get sick. The independent variable is the number of days of consuming soup. The dependent variable is the onset of illness.



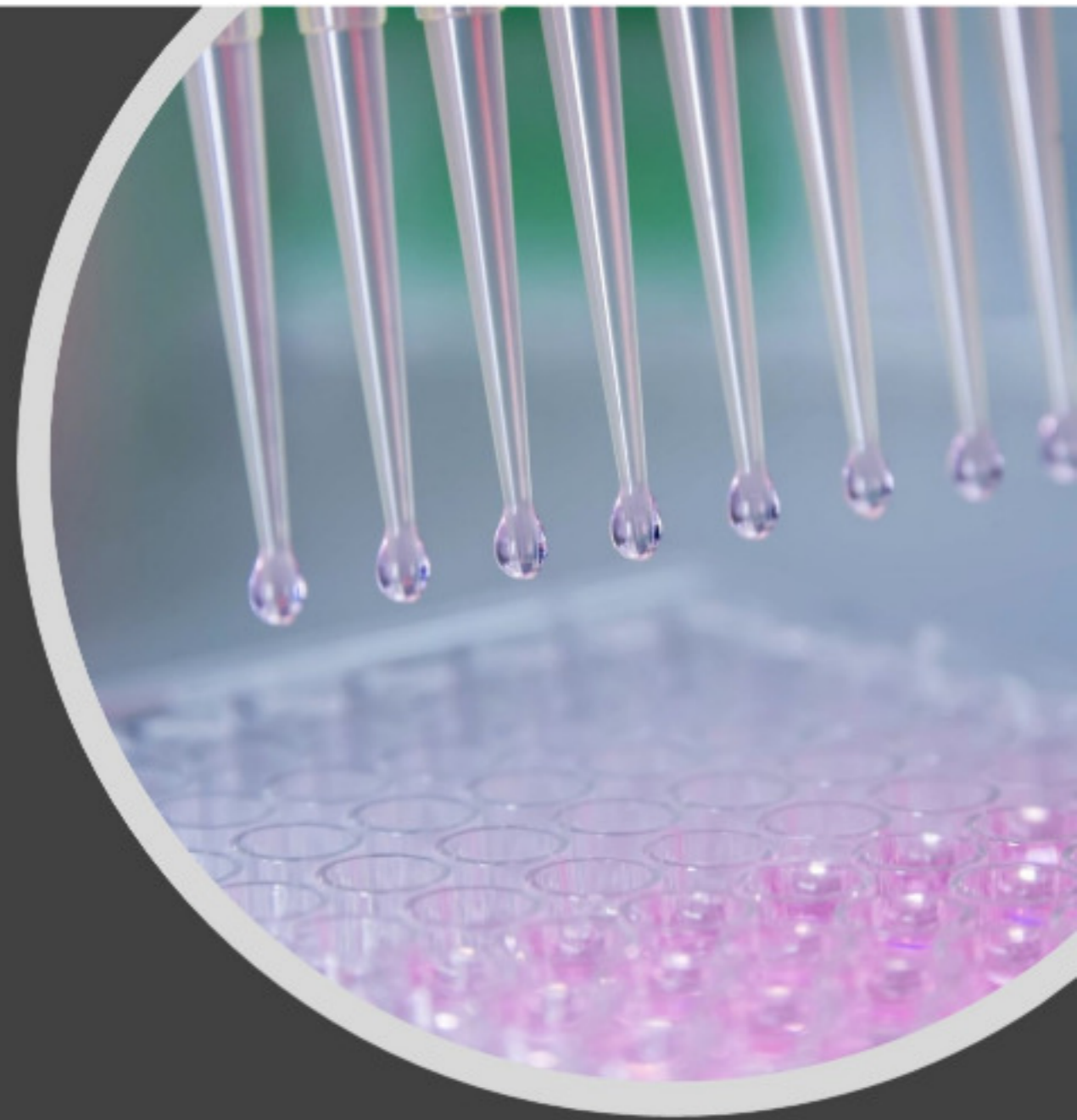
Is an independent variable what you change or what you measure?

Collaborate!

IV vs DV

What is the control?

- The control is the standard against which the researcher compares the results from each treatment group (level) in the experiment.



What is a constant?

- A constant is a variable that does not change during the experiment so that it can be used as a base for comparison.

Poll

Which variable does not change in an experiment?

- independent
- dependent
- control

Now you try it...

1. How do different chemicals in fertilizers affect plant growth?

Independent variable: _____

Dependent variable: _____

2. What is the effect on density of different mediums (air and glass) on the speed by which light travels?

Independent variable: _____

Dependent variable: _____

Examples

1. How do different chemicals in fertilizers affect plant growth?

Independent variable: chemical in fertilizer

Dependent variable: plant growth

2. What is the effect on density of different mediums (air and glass) on the speed by which light travels?

Independent variable: density

Dependent variable: speed of light travels

Why we should wear masks?



- <https://youtu.be/0Tp0zB904Mc>



<https://www.youtube.com/embed/ri4vherO3vQ>

Poll

How often do you wear a mask out in public right now to stop the spread of COVID-19?

- All the time
- Some of the time
- Not at all

Identify the independent and dependent variable.

- How does wearing a mask prevent the spread of COVID-19?

Independent variable _____

Dependent variable _____

Identify the independent and dependent variable.

- How does wearing a mask prevent the spread of COVID-19?

Independent variable wearing a mask

Dependent variable spread of COVID-19

The Story of Carbon





Carbon Facts

- Carbon is a nonmetallic element
- It is the 6th most abundant element.
- Three naturally occurring allotropes of carbon are known to exist: amorphous, graphite and diamond.
- There are nearly ten million known carbon compounds and an entire branch of chemistry, known as organic chemistry, is devoted to their study.



Ingredients for Life: Carbon

- <https://ca.pbslearningmedia.org/resource/ess05.sci.ess.eiu.carbon/ingredients-for-life-carbon/>



<https://www.youtube.com/embed/EmzYs0SundU>

Carbon is in
all living and
nonliving
things.



Poll

Do all three examples contain Carbon? a. the graphite in our pencils and the black ink in our pens b. the DNA in our cells and the air in our lungs c. the wood in our chairs

Yes

No

The Combustion of wood

- <https://ca.pbslearningmedia.org/resource/610dd6de-ac50-4be7-9af4-65aac2270180/the-combustion-of-wood/>



<https://www.youtube.com/embed/B0E4PX3e3RE>



Quiz

Combustion reaction

The burning of wood is a combustion reaction. When the wood burns it releases what two products?

- oxygen and water
- water and carbon dioxide
- oxygen and carbon dioxide
- methane and oxygen



The burning of wood is a combustion reaction.

- When the wood burns it releases what two products?

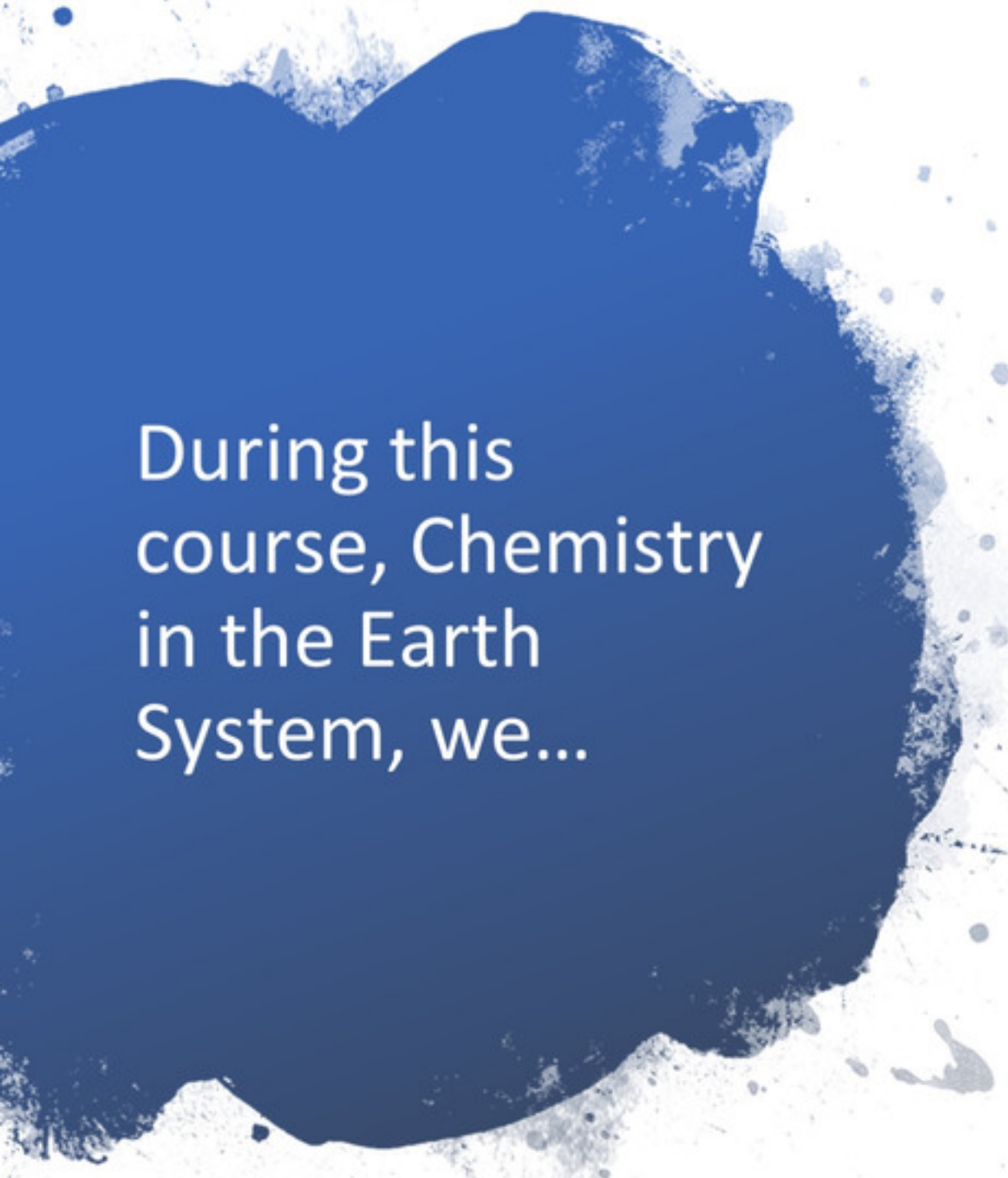
Circle them.

- Oxygen
- Water
- Methane
- Carbon dioxide

Carbon is Stardust...

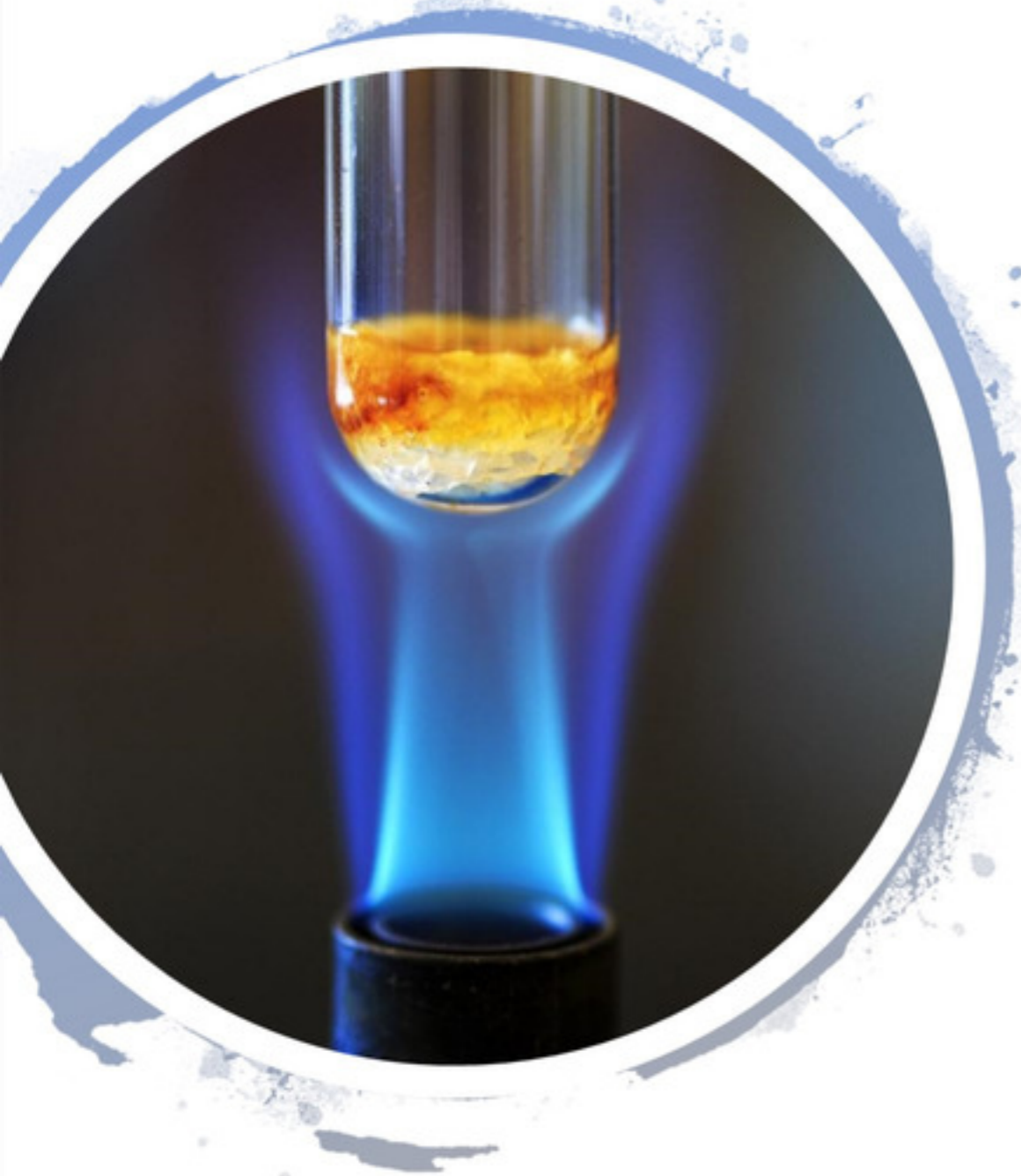
- Carbon was not created during the Big Bang, but rather much later in stars. All of the carbon in all living things is made in the nuclear fusion reactors that we call stars. The early stars are massive and short-lived. They consume their hydrogen, helium and lithium and produce heavier elements.
- When these stars die with a bang they spread the elements of life, carbon and oxygen, throughout the universe. New stars condense and new planets form from these heavier elements. The stage is set for life to begin.





During this course, Chemistry in the Earth System, we...

- will be investigating and learning about the discipline of chemistry as it relates to our planet Earth, through the Story of Carbon.
- will begin by investigating one of the five traditional types of chemical reactions, Combustion.



A combustion reaction...

- involves fuel that reacts with oxygen to produce water, carbon dioxide and energy.

Parts of a reaction

- <https://www.youtube.com/watch?v=3VoFkQtg6Wo>





<https://www.youtube.com/embed/3VoFkQtg6Wo>

Poll

What is the left side of a chemical equation called?

- reactants
- products

What do you need to do for HW over the weekend?

1. Week 1 **check-in** google form
2. **Vocabulary & IV, DV** google form
3. **Print** IS1 combustion-part 1 packet
4. Join the new **Remind**
5. Get your **supplies** for class

THE
future
of the
world
is in my
CLASSROOM

SCIENCE
IS LIKE MAGIC
BUT IT'S REAL



Open up a new





Assignments to complete

Now, go to google classroom
and complete the assignments
for next class by the due date.