

A decorative border surrounds the central text, featuring various school and science-themed icons. These include a lightbulb, a paperclip, a paintbrush, a pencil, a beaker, a planet with a ring, an atom, a question mark, an exclamation mark, a percent sign, an ampersand, a plus sign, and a minus sign. The icons are scattered throughout the slide, creating a vibrant and educational atmosphere.

Modern Classroom

Overview

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What is the Modern Classroom Project?

How we heard about MCP

Over the summer, we were doing self-driven professional development and collaborating back and forth about new teaching strategies.

In a podcast, the Modern Classroom Project was mentioned as a way to prevent teacher burnout and re-engage students after COVID learning.

Mastery-Based Learning

"Students progress from one lesson to the next when they demonstrate mastery."

Self- Paced Structure

"Students control the pace of their own learning"

Blending Instruction

"Students access content through teacher created videos."

Why is it good for students?

Just a few of their favorite things...

Absences

Differentiation

Self-Paced

Self-Governed

Tracker provides
progress/organization

Group Work

Ability to Dive Deeper
(Must Do/Should Do/Aspire to Do)

Limited Work Outside of
Classroom

Work completed with peer
support

Concise & Engaging Notes

Routine

Unit objectives are known
from start

Revision prevents learning
gaps

More 1:1 time with teacher

Access to content
throughout year

Why is it good for teachers?

Just a few of our favorite things...

UDL/Differentiation

This way of teaching allows teachers to meet the needs of all students seamlessly and provides differentiation during each lesson.

Reverse Planning

With end goal of the unit in mind, teachers are able to focus and fine tune their lessons to effectively plan.

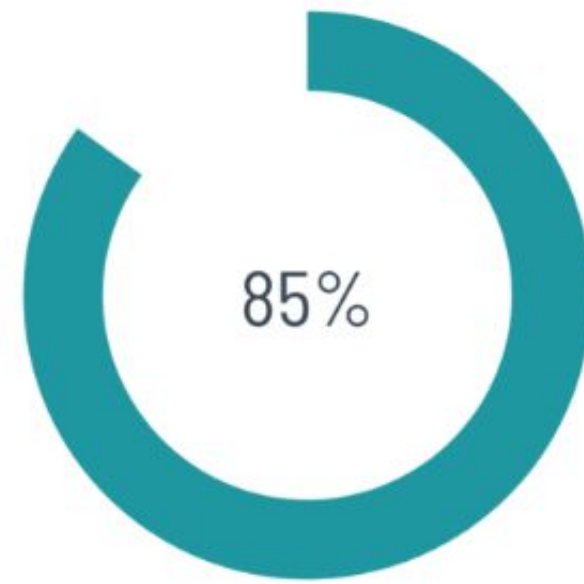
Connection

The teacher is able to connect and conference with each student and help the individually on a daily basis.

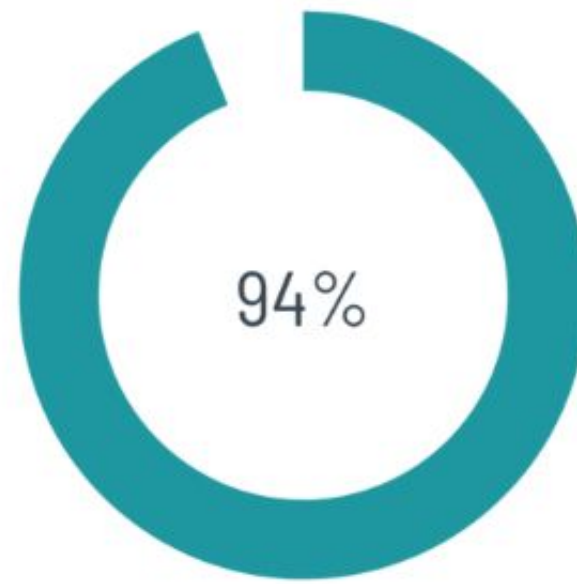
Absenteeism

When a student returns, the teacher can effectively use the time with them to catch up on what was missed rather than there being gaps in learning.

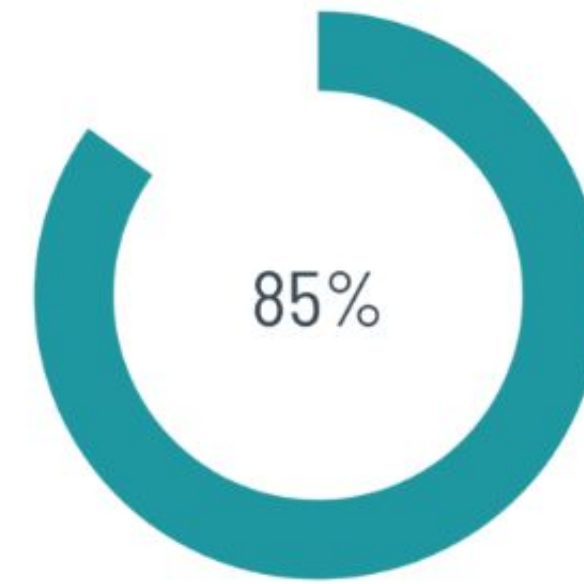
We've surveyed thousands of teachers about their experiences. Here's what they say:



enjoy teaching more



plan to continue adopting Modern
Classroom practices for the rest of
their career



feel more optimistic about the future
of education

Source: <https://www.modernclassrooms.org/>

Unit Outline

Unit 12 Acids and Bases

Objectives and Assignments



Lesson	Objective	Mastered?
12.1	I can identify properties of Acids and Bases and use table M. <input type="checkbox"/> Notes <input type="checkbox"/> Practice <input type="checkbox"/> Lab?	<input type="checkbox"/>
12.2	I can identify an Arrhenius acid and base and neutralize them. <input type="checkbox"/> Notes <input type="checkbox"/> Practice	<input type="checkbox"/>
12.3	I can complete a titration equation. <input type="checkbox"/> Notes <input type="checkbox"/> Practice	<input type="checkbox"/>
12.4	I can identify a different theory of acids and bases. <input type="checkbox"/> Notes <input type="checkbox"/> Practice	<input type="checkbox"/>
	<input type="checkbox"/> Vocab Slides (see next page) <input type="checkbox"/> REVIEW * <input type="checkbox"/> Kahoot Review* *items are extra practice or <i>aspire to do</i> assignments	

UNITS 9 - CIRCLES

M-24 Unit 7/8 Test (open notes)	T-25 9.2 Notes & Practice	W-26 9.3 Notes & Practice	R-27 9.4 Notes, Practice & M. Check	F-28 9.5 Notes, Practice & M. Check
M-1 9.5 Notes, Practice & M. Check	T-2 9.6 Notes, Practice & M. Check	W-3 9.7 Notes, Practice & M. Check	R-4 9.8 Notes, Practice & M. Check	F-5 9.9 Notes, Practice & M. Check
M-8 9.10 Notes, Practice & M. Check	T-9 9.11 Notes, Practice & M. Check	W-10 9.12 Notes, Practice & M. Check	R-11 BEGIN REGENTS REVIEW	F-12 REGENTS REVIEW

Notice how we have skipped over some notes. These notes will still be available in Google Classroom, along with the answer key to the practices if you would like to attempt them. There **may be questions on the regents that are based on these skills, however the majority of the questions will be based on the material we have covered in class. In the event you'd like to extend your learning to these other topics, the material is there for you, but you will not be graded on it. **

Extension Notes:

9.1 - Similarity of Circles
9.4- ASPIRE TO DO PRACTICE
9.7- Angle Practice (ASPIRE TO DO)
9.12- ASPIRE TO DO
9.13 - Equations of a Circle Practice (no video)

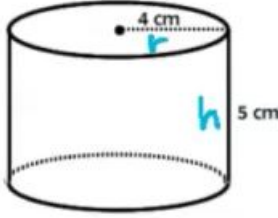
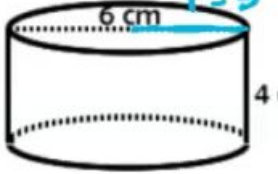
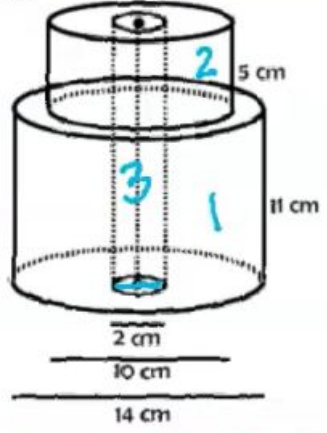
Tracker

Students update tracker as they progress through each unit.

[illegible]

Video/Notes- Math

Examples:

<p>1.</p>  $V = \pi r^2 h$ $V = \pi (4)^2 (5)$ $V = \pi (16) (5)$ $V = 80\pi$ <p>Volume: $80\pi \text{ cm}^3$</p>	<p>2.</p>  $V = \pi r^2 h$ $V = \pi (3)^2 (4)$ $V = \pi (9) (4)$ $V = 36\pi$ <p>Volume: $36\pi \text{ cm}^3$</p>	<p>3.</p>  $V_1 = \pi (2)^2 (5) = 20\pi$ $V_2 = \pi (3)^2 (11) = 99\pi$ $V_3 = \pi (1)^2 (14) = 14\pi$ <p>Volume: 133π</p>
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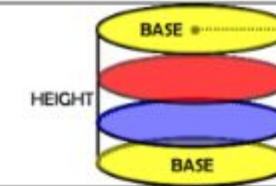


GU.8.4 - VOLUME OF THE CYLINDER

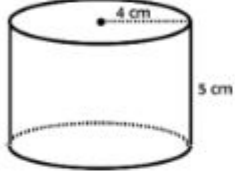
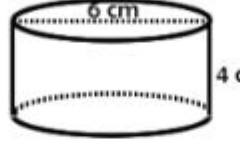
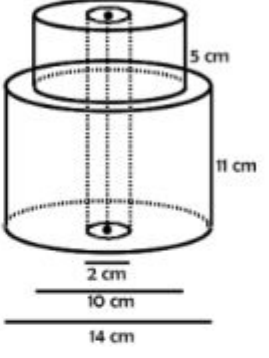
Volume of a Cylinder:

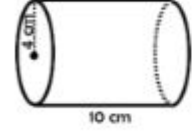
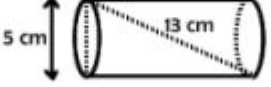
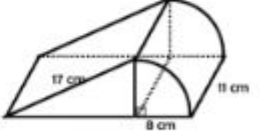
$V = Bh$ where B is the area and h is the height of the prism

$$V = \pi r^2 h$$



Examples:

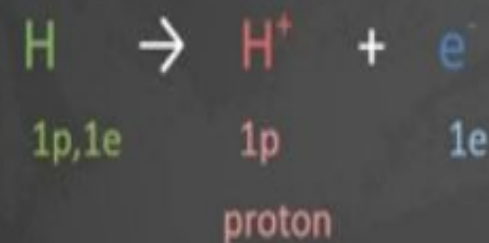
<p>1.</p>  <p>Volume: _____</p>	<p>2.</p>  <p>Volume: _____</p>	<p>3.</p>  <p>Volume: _____</p>
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<p>4.</p>  <p>Volume: _____</p>	<p>5.</p>  <p>Volume: _____</p>	<p>6.</p>  <p>Volume: _____</p>
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Video/Notes - Science

Arrhenius Acid

a substance that releases H^+ ions in aqueous solution. Only positive ion in solution is the hydrogen ion. Just realize that not all substances containing hydrogen are acids – such as when they are covalently bonded to carbon.

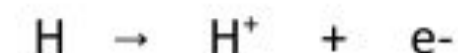


However, a proton can't exist alone in water, so it is attracted to unshared pairs of e^- on water.

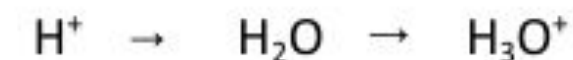


12.2 Arrhenius Acids and Bases

Arrhenius Acid – a substance that releases _____ in aqueous solution. Only positive ion in solution is the hydrogen ion. *Just realize that not all substances containing hydrogen are acids – such as when they are covalently bonded to carbon.*

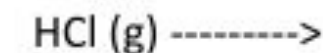


However, a proton can't exist alone in water, so it is attracted to unshared pairs of e^- on water.



For example:

- When HCL dissolves in water its acidic properties are the result of the H^+ ions produced



Found on Table _____. The strongest acids are at the _____.

Video should be less than 10 minutes ideally.

Mastery Check

Mastery Check

Name: _____ Date: _____

12.2 Arrhenius Acids and Bases

Directions: Answer the following questions.

When dissolved in water, an Arrhenius base yields

Hydrochloric Acid is classified as an Arrhenius acid because HCl contains

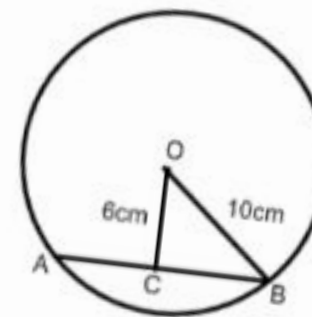
What are the products of this reactions:
 H_2CO_3 and $\text{Sr}(\text{OH})_2$



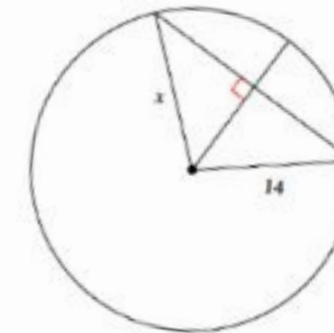
GU.9.4 MASTERY CHECK

Name: _____

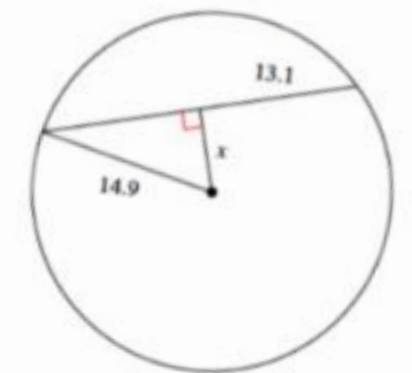
1. Find AB



2. Find x



3. Find x



Students must achieve 80% to move on to next objective

What students have to say...

"We can work on our own pace. If we're struggling to understand something there are videos we can go back to and Mrs. Fleming is always around to help us."

"It really works for me because I can pay attention much easier and I don't have to ask any questions. Last year I really struggled to pay attention and was always confused with what to do. Modern classroom has allowed me to do well in math and has significantly improved my grade."

"I like having the Modern Classroom because it allows me to absorb information at my own pace. In a normal classroom, the lesson goes at a set pace that is usually too fast for me to write down/comprehend the information."

"I like it because you can do it at your own pace and you don't feel rushed."

"I feel it makes learning easier because I can get help with whatever specific unit I'm on and not have to ask the whole class."