

Lesson Plan, **6-9pm, Thursday, 11 October, 12018 HE rm. 211**, SDCE, North City Campus  
Instructor: Ms. S. D. Jones

In our **Learning Toolbox**:  
Where to find information about **voting**: the local **Public Library!!**

**Vocabulary**:  
Copy into your notes, and Mind Map each word:

<b><u>Reading Comp. Vocab.</u></b>	<b><u>Grammar Vocabulary</u></b>	<b><u>Math Vocabulary</u></b>	<b><u>Test-taking Skills</u></b>
<b>Separation of powers</b>	<b>Essay Writing review</b>	<b>Negative exponents</b>	<b>Breaking tasks down</b>
Separation of church and state	Essay Writing: Introductory paragraph	Negative Exponent rules	Dividing work into smaller chunks
Checks and balances	Thesis sentence	Fractional Exponent	Time management
Judiciary	Supporting sentences	Negative Exponents	scheduling
Judicial Branch	Rebuttal sentences	Fractional Exponents	Monitoring progress
State Supreme Courts, the US Supreme Court	Transitional sentences	Adding/multiplying Exponents	Keeping track of progress

6pm:

**Write** one or two sentences explaining what you think might be the differences between the lower level courts and the federal courts.

6:02 Continue on work from your folder (on Reading/Literature/Science/Social Studies).

**7pm:** Stand up & Stretch, if you wish...

**7:00 to 7:07** Reading Comprehension

**7:07 to 7:15** Grammar lecture, using the passage below.

**7:15 to 7:25** Math lecture, also using this same passage.

**7:25-7:30** We do 1st question/problem from each online worksheet together, then you finish the online activities from all lectures individually on the classroom computers.

**Mathematics work online and/or in books from 7:45 until 8:45.**

7:00-7:07: **Reading Comp.:** Essay organizing and compound sentences

## **Today's Passage: "Learning from his mistake**

Herman talked to his friend, Mia, and she told him that he shouldn't get upset about his bad grade since mistakes are learning opportunities and just a part

of the learning process! She suggested that instead of getting discouraged or giving up, he should reflect on his mistakes, see why he made those mistakes, and then think of ways that he could avoid making the same mistakes again. It's a feedback opportunity!

Mia encouraged herman to go to tutoring and ask for help figuring out a different learning strategy.

When Herman showed up to tutoring, his teacher gave him a few pointers on different learning strategies that might improve his understanding of concepts he was learning in history. Instead of memorizing facts and events, the teacher suggested he spend a little bit more time thinking about and answering the question why. his teacher encouraged Herman to retake the test and try again after giving this new learning strategy a try.” (Today's reading comes from

<https://www.khanacademy.org/partner-content/learnstorm-growth-mindset-activities-us/high-school-activities/modal/a/activity-3-part-1-mistakes-are-puzzle-pieces-hs...>)

Where are the Grammatical errors?

**7:07 Grammar** Essay writing part4/4:: review of the four main parts of an Essay

Recall that an essay should have at least four paragraphs (¶):

**Introduction**, with your *Thesis Sentence*,

**Body** paragraphs, with your **pros and cons**, and

**Conclusion** paragraph, summarizing your argument or topic.

Please start writing an introductory paragraph, using your thesis sentence and your essay outline.

**7:15 Mathematics** Topic: **Exponents and Radicals**, good friends that go together.

Why would we want to convert between forms of expression? *Sometimes a problem is easier to solve in an equivalent form...*

## Exponents rules and properties

Rule name	Rule	Example
Negative exponents	$b^{-n} = 1 / b^n$	$2^{-3} = 1/2^3 = 0.125$

(Source: <https://www.rapidtables.com/math/number/exponent.html> and <https://www.homeschoolmath.net/teaching/md/division-repeated-subtraction.php>)

Notice that a negative exponent jumps the fraction bar, so  $b^{-n} = 1 / b^n$

$m\sqrt{(b^n)} = b^{n/m}$
$b^{1/n} = n\sqrt{b}$

(Source: <https://web.northeastern.edu/seigen/1250DIR/Handout-ExponentsandRadicals1.pdf>)

So, exponents really are just radicals in a different form!

Let's chart **some Ways to Express Any Number X**

# Quantity	Fractional Exponents	Radical form	multiply	exponent	fraction	decimal	percent	<i>Por Ciento</i>
8	$(64)^{1/2}$	$\sqrt{64}$	$4*2$	$8^1$	$64/2, 8/1$	8.0	800%	800/100
$3^{-1}$	$(1/9)^{1/2}$	$\sqrt{1/9}$	$33/99$	$3^{-1}$	$1/3$	.3333	33%	33/100
12	$(144)^{1/2}$	$\sqrt{144}$	$12*1, 3*2^2$	$12^1$	$12/1, 24/2$	12.000	1200%	1200/100
3	$9^{1/2}$	$\sqrt{9}$	$3*1, 3*3^0$	$3^1$	$9/3, 12/4$	3.00	300%	300/100
27	$(27*27)^{1/2}$	$\sqrt{(27*27)}$	$3*3*3$	$3^1*3^2$	$27/1$	27.00	2700%	2700/100

Now, let's do the first online math worksheet problem together:

[https://www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-negative-exponents/e/exponents\\_2](https://www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-negative-exponents/e/exponents_2)

**7:30**

1.) Please finish your outline, Thesis sentence, and a few sentences of your Introductory Paragraph,

and

2.) Please do the remainder of online math worksheet:

[https://www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-negative-exponents/e/exponents\\_2](https://www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-negative-exponents/e/exponents_2)

8:40 **Exit Questions:** 1. Please **write** one sentence explaining how you can use a chart to show various forms of the same number.

2. What is a rebuttal?

3. What is the Distributive Property?

4. Show, using exponents, why the square root of five, multiplied by itself, is equal to 5.

8:45 Turn in Exit Slip, Dismissal