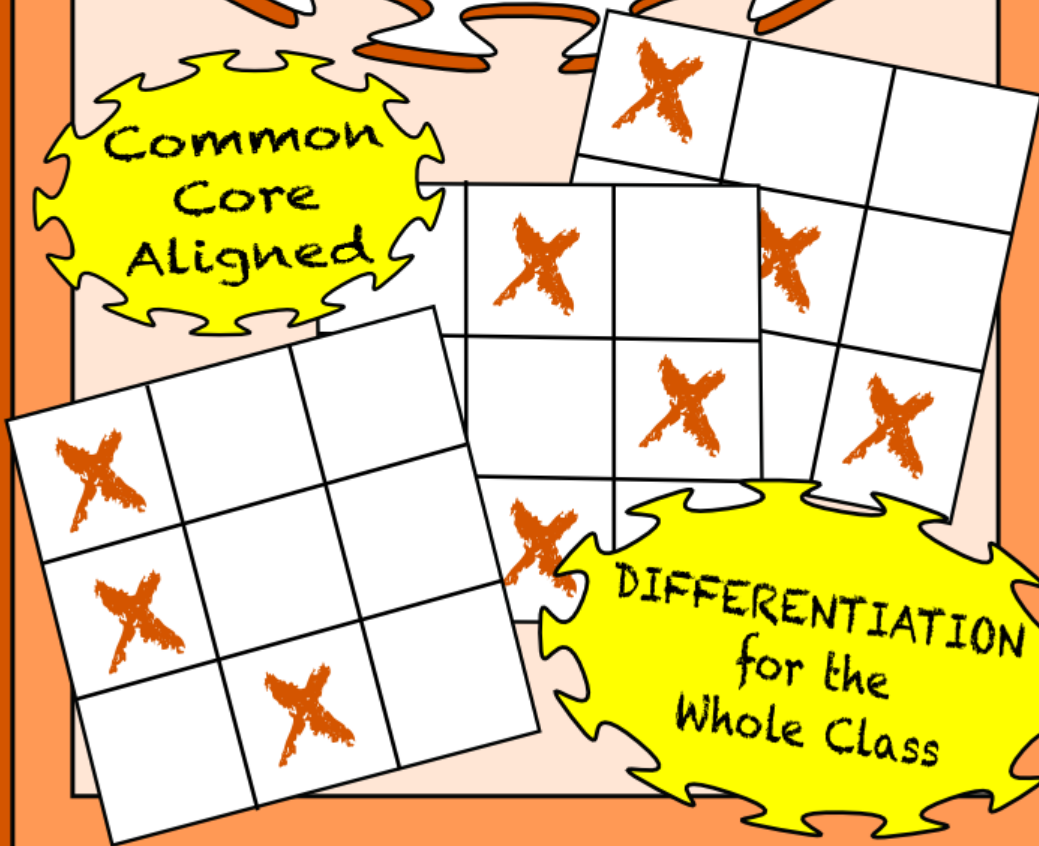


CHOICE BOARD

Scientific Notation
and Exponents

Common
Core
Aligned



DIFFERENTIATION
for the
Whole Class

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A Note to the Teacher:

Thank you so much for purchasing this Choice Board from The Math Station on Teachers Pay Teachers. I hope you like it! I started using choice boards last year and LOVE them! I never gave my students the opportunity to be creative in my classroom. For years, it was notes, homework, and repeat until the test. These choice boards give students the ability to express themselves within their particular learning style. I have been so impressed with the results I get from my students.

This choice board focuses on exponents and scientific notation. Also included in this file are mini posters that describe each option on the choice board. I put these on a bulletin board that hangs all year, as we do a number of choice boards. You can also show them on a projector when introducing the choice board to your class. I like to distribute the choice boards at the beginning of the unit and give them a due date around the test.

When my students did their first choice board, I gave them a period in class to work on it. Following choice boards were completed entirely on their own time. I have also created and included a general rubric that you can use for any choice board item. To be honest, I don't fill these out for every submission from every student. I explain the rubric, but then just assign points earned on their work.

To differentiate, I occasionally allow lower level students to complete two choices (I will cross out a row). The other option for differentiation is to reduce the number required for a particular choice. For example, have a student create two story problems rather than four. I also give students extra credit for any choices that they complete beyond the minimum.

I have created 14 choice boards for 8th grade common core math covering the following topics:

1. Introducing Transformations
2. Understanding Congruence
3. Understanding Similarity
4. Rational and Irrational Numbers
5. Pythagorean Theorem
6. Functions
7. Introduction to Linearity
8. Bivariate Data
9. Nonlinear Functions
10. Solving Linear Equations
11. Systems of Linear Equations
12. Exponents and Scientific Notation
13. Geometric Relationships
14. Volume of Cones, Spheres, and Cylinders

Exponents & Scientific Notation

Choice Board

Directions: Complete three activities from this board. You must choose one from each row.

Due Date:

Make a POWERPOINT presentation showing how to apply the properties of integer exponents to simplify expressions	Write a math RAP/RHYME explaining how to apply the properties of integer exponents to simplify expressions	Create a QUIZ and answer key with 20 problems applying the properties of integer exponents to simplify expressions
Design a PAGE from a math book that shows how to use scientific notation to express very large and very small quantities	Write a LETTER to a friend helping them use scientific notation to express very large and very small quantities	Create a GAME with at least 20 problems (and answers) using scientific notation to express very large and very small quantities
Make a POSTER showing a how to perform operations with numbers expressed in scientific notation	Write a PARAGRAPH explaining how to perform operations with numbers expressed in scientific notation	Create and solve five real-world STORY PROBLEMS requiring operations with numbers expressed in scientific notation

POWERPOINT PRESENTATION

Your PowerPoint presentation should have at least five slides, including a title slide. Be sure to include examples when appropriate. Your descriptions must be easy to understand and include all necessary steps. When your presentation is complete, email it to me at:

PAGE

From a Math Book

As you complete this activity, think about what a page in a math book looks like. You should see an example that shows every step. All details need to be clearly explained. Finally, it should be colorful so that it is interesting for the reader.

POSTER

When you create your poster, remember that it may hang on your classroom wall for all the students to see. With this in mind, make sure that your writing is large enough to be read from a distance. Your poster should include an example that shows every step. All details need to be clearly explained. Finally, it should be colorful so that students want to read it.

STORY PROBLEMS

Story problems are based on real-world scenarios. When you write your story problems, think about life outside of your math classroom. Make sure that your scenarios are realistic and challenging! You must include all the information needed to solve the problem. Finally, show how to solve each one of your problems.

RAP/RHYME

Your Rap or Rhyme must have a rhythmic sound when read aloud. It should be enjoyable for your listeners. You need to be sure to describe all the necessary steps. Make sure that a listener would be able to understand how to solve a problem after they listen to you. You can describe an example as well.

LETTER

You are writing a letter to a friend to help them understand a concept or problem solving strategy in math. Write your letter in a friendly format (include “Dear _____” and Sincerely, _____). Write in paragraph form, not a bulleted or numbered list. If you wish to include an example, you can break from the paragraph form to show your example.

PARAGRAPH

When you write your paragraph, try to imagine that the person reading it has never learned about your topic before. You need to describe every detail clearly, so that they can understand it. Explain each step so that your reader could accurately solve a problem using your strategy. If you would like to include an example, you may put it underneath your paragraph.

QUIZ

Create a quiz that covers all the necessary parts of your topic. Your problems should range from easy to very challenging. Show as much variety as you can in the problems you create. When you create your answer key, be sure to show all the work needed to solve every problem.

GAME

You can create a board game or a card game for this choice board option. Your game should be fun and interesting for people to play. Be creative and colorful in your design. Write your directions clearly. Most importantly, incorporate your math problems into the game. Show your answers so the players can check their work.

Choice Board Rubric

	4	3	2	1	0	Score
Clarity	All descriptions and work shown are easy for the reader to understand	Most descriptions and work shown are easy for the reader to understand	Some descriptions and work shown are easy for the reader to understand	Descriptions or work shown are not easy for the reader to understand	Descriptions and work are not present	
Neatness	All work and writing is easy to read and visually appealing	Most work and writing is easy to read and visually appealing	Some work and writing is easy to read and visually appealing	Work or writing is not easy to read and visually appealing	Work and writing are not present	
Accuracy	All problems are solved accurately and all necessary work is shown	Most problems are solved accurately and all necessary work is shown	Some problems are solved accurately and all necessary work is shown	Problems are not solved accurately and all necessary work is not shown	Problems are not solved	
Rigor	All problems were created with an appropriate level of difficulty	Most problems were created with an appropriate level of difficulty	Some problems were created with an appropriate level of difficulty	Problems have not been created with an appropriate level of difficulty	Problems have not been created	

Total : _____