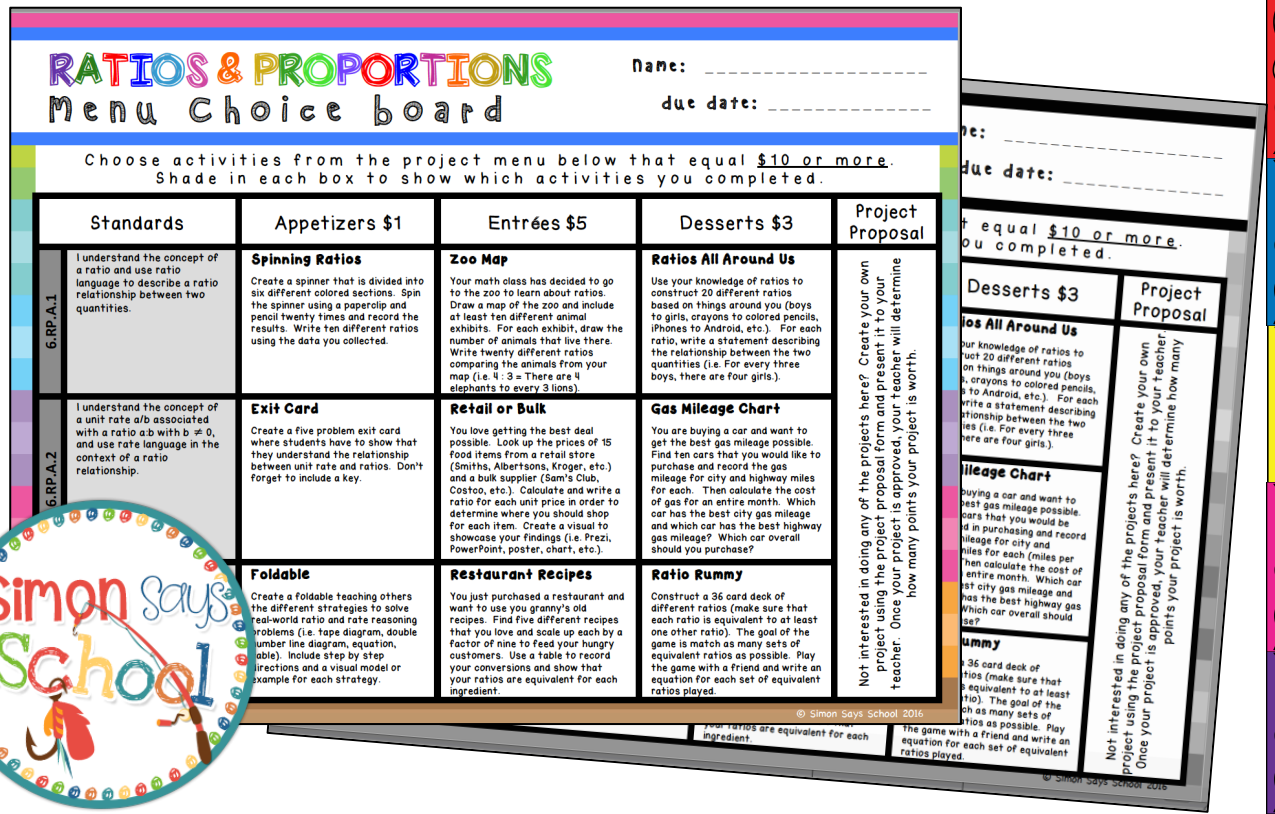
6th Grade Enrichment

RATIOS & PROPORTIONS

Menu Choice board



- Common Core Aligned
- Fun and Engaging Activities
- Color & Black/White
- Lesson Plans & Scoring Rubrics Included
- Project Based Learning

TERMS OF USE & ABOUT THE AUTHOR

My name is Christy Simon, and I have been an educator for over 12 years. I have taught everything from middle school reading to a 4/5 combination class. For the past few years, I have been the gifted and talented resource teacher at my school and absolutely love my job! I have a true passion for project based learning and am honored to share the resources I create for my own students with other teachers through TPT.

Christy

Check out my blog at www.simon-says-school.com.

Choice Board

Guide for teachers

Choice boards are an amazing differentiation tool that I have been using in my classroom for years! By creating a variety of meaningful, engaging, and fun activities, I am able to empower my students through choice while also meeting their individual needs. These menus are especially wonderful for both gifted and reluctant learners because they give the students a greater sense of ownership, the ability to work at their own pace, and the freedom to choose or design activities based on their own interests and readiness. I hope you find the learning menu in this resource to be easy to use and rewarding for your students!

This Packet Includes Both Colored and Black/White Copies Of...

- Menu Choice Board
- Project Proposal
- Project Rubric
- Presentation Rubric

Set-Up

- Print enough copies of the learning menu and scoring rubrics for each of your students.
- Start with 20 copies of the "Project Proposal" because students will require them as needed.

Process

- Distribute a copy of the "Menu Choice Board" to each student. Explain the purpose of choice boards, how the menu is organized, and the requirements for this project (They will choose activities from the project menu that equal $10 or more. Students can choose any combination of projects desired based on their interests.)
- Project and/or distribute copies of the "Project Proposal." Explain that students can choose to design their own activities but that the proposal must be approved by the teacher prior to starting. Review the proposal form together as a class.
- Distribute and review the "Project Scoring Rubric" and the "Presentation Scoring Rubrics" with students.
- At this time, give students an opportunity to review and choose which activities they would like to complete.
- Students can complete these projects during their regular math block, at home as homework, or as an early finisher activity whenever time permits.
- When students are finished, ask them to self-assess their projects using the "Project Rubric." You can also ask students to present their projects to the whole class or in small groups. Assess them using the "Presentation Rubric."

Assessment

Teacher Observation, Discussion, Student Self-Assessment, Presentation Rubric, and Project Rubric

RATIOS & PROPORTIONS
Menu Choice board

Name: _____

due date: _____

Choose activities from the project menu below that equal $10 or more.
Shade in each box to show which activities you completed.

Standards		Appetizers $1	Entrées $5	Desserts $3	Project Proposal
6.RP.A.1	I understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.	**Spinning Ratios** Create a spinner that is divided into six different colored sections. Spin the spinner using a paperclip and pencil twenty times and record the results. Write ten different ratios using the data you collected.	**Zoo Map** Your math class has decided to go to the zoo to learn about ratios. Draw a map of the zoo and include at least ten different animal exhibits. For each exhibit, draw the number of animals that live there. Write twenty different ratios comparing the animals from your map (i.e. 4 : 3 = There are 4 elephants to every 3 lions).	**Ratios All Around Us** Use your knowledge of ratios to construct 20 different ratios based on things around you (boys to girls, crayons to colored pencils, iPhones to Android, etc.). For each ratio, write a statement describing the relationship between the two quantities (i.e. For every three boys, there are four girls.).	Not interested in doing any of the projects here? Create your own project using the project proposal form and present it to your teacher. Once your project is approved, your teacher will determine how many points your project is worth.
6.RP.A.2	I understand the concept of a unit rate a/b associated with a ratio a:b with b ≠ 0, and use rate language in the context of a ratio relationship.	**Exit Card** Create a five problem exit card where students have to show that they understand the relationship between unit rate and ratios. Don't forget to include a key.	**Retail or Bulk** You love getting the best deal possible. Look up the prices of 15 food items from a retail store (Smiths, Albertsons, Kroger, etc.) and a bulk supplier (Sam's Club, Costco, etc.). Calculate and write a ratio for each unit price in order to determine where you should shop for each item. Create a visual to showcase your findings (i.e. Prezi, PowerPoint, poster, chart, etc.).	**Gas Mileage Chart** You are buying a car and want to get the best gas mileage possible. Find ten cars that you would like to purchase and record the gas mileage for city and highway miles for each. Then calculate the cost of gas for an entire month. Which car has the best city gas mileage and which car has the best highway gas mileage? Which car overall should you purchase?	
6.RP.A.3	I can use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.	**Foldable** Create a foldable teaching others the different strategies to solve real-world ratio and rate reasoning problems (i.e. tape diagram, double number line diagram, equation, table). Include step by step directions and a visual model or example for each strategy.	**Restaurant Recipes** You just purchased a restaurant and want to use you granny's old recipes. Find five different recipes that you love and scale up each by a factor of nine to feed your hungry customers. Use a table to record your conversions and show that your ratios are equivalent for each ingredient.	**Ratio Rummy** Construct a 36 card deck of different ratios (make sure that each ratio is equivalent to at least one other ratio). The goal of the game is match as many sets of equivalent ratios as possible. Play the game with a friend and write an equation for each set of equivalent ratios played.	

RATIOS & PROPORTIONS

Project Proposal

Name: _____

date: _____

What product will you create? _____ **Standard Addressed**: _____

Write a detailed description of your project: _____

_____

_____

How many points do you feel your project should be worth? *Circle one* Appetizer ($1) Entrée ($5) Dessert ($3)

Why do you want to create this project?

_____

_____

Teacher Use Only

Approval Decision : Not Approved Approved

Modifications to Project: _____

_____

Project Level : Appetizer ($1) Entrée ($5) Dessert ($3)

RATIOS & PROPORTIONS

project rubric

Name: _____

Score: _____

CATEGORY	Exceeds 4	Meets 3	Approaches 2	Emergent 1
Required Elements	Student included more information than what was necessary. Additional details and/or components were added.	Student included all of the information that was required.	Almost all of the information that was required is included. One part or element is missing or incomplete.	Student included some information that was required but several important components are missing.
Accuracy	All math computations are accurate and absolutely no errors are present.	Most of the math computations are accurate but there are one or two small errors.	There are two to four small math computation errors or one major error present.	There are many math computation errors, and the student has not shown mastery.
Mastery	It is obvious that the student has an in-depth and extensive understanding of the math concept. The student can accurately answer all questions and explains his/her understanding in great detail.	The student has a strong understanding of the math concept and has shown mastery.	The student has a basic understanding of the math concept, and the work completed does not show mastery.	The student has not shown mastery of the math concept and cannot answer the majority of questions satisfactorily.
Originality	The project shows an exceptional degree of creativity and divergent thinking.	A lot of student creativity is present.	The project shows some creativity but parts were inspired by the designs or ideas of others.	The project lacks overall creativity.
Neatness & Attractiveness	The project is exceptionally attractive in terms of design, layout, neatness, and overall appearance.	The project is attractive in terms of design, layout, neatness, and overall appearance.	The project is somewhat attractive. More time could have been spent on the overall appearance and presentation of the project.	The overall appearance is not attractive. The project looks rushed and does not show the student's best effort.

RATIOS & PROPORTIONS

presentation rubric

Name: _____

Score: _____

CATEGORY	Exceeds 4	Meets 3	Approaches 2	Emergent 1
Preparedness	Student is completely prepared and has obviously rehearsed.	Student seems pretty prepared but might have needed a couple more rehearsals.	The student is somewhat prepared, but it is clear that rehearsal was lacking.	Student does not seem at all prepared to present.
Answers Questions	The student can accurately answer all questions and explains his or her understanding in great detail.	The student is able to answer all questions posed accurately.	The student is unable to explain his or her thinking to all of the questions asked.	The student cannot answer the majority of questions satisfactorily.
Explains Thinking and Shows Mastery	Shows an advanced understanding of the math concept and provided an in depth explanation of his or her thinking.	Shows a good understanding of the math concept and clearly shared his or her thinking.	Additional practice is necessary for mastery. Student struggled at times with explaining his or her thinking.	Does not show mastery and is unable to explain his or her thinking.
Posture, Eye Contact, and Volume	Stands up straight, looks relaxed and confident. Establishes eye contact with everyone in the room during the presentation, and the volume is loud enough to be heard by all audience members throughout the presentation.	Stands up straight and establishes eye contact with everyone in the room during the presentation, and the volume is loud enough to be heard by all audience members.	Sometimes stands up straight and establishes eye contact. Occasionally, the volume is not loud enough to be heard by all audience members.	Slouches and/or does not look at people during the presentation. The volume is often too soft to be heard by all audience members.
Use of Visual Aid	Student explains and seamlessly integrates his/her visual aid into the presentation and uses it to make the presentation better.	Student explains and integrates his/her visual aid into the presentation and uses it to make the presentation better.	Student refers to his/her visual aid during presentation but it does not add to the presentation.	Student never refers to the visual aid OR the visual aid chosen detracts from the presentation.

RATIOS & PROPORTIONS
Menu Choice board

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Project Proposal

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- -

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Modifications to Project: ____

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Project Level : Appetizer ($1) Entrée ($5) Dessert ($3)

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