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Flipping the
Classroom
with Edpuzzle!

Flipping the Classroom with Edpuzzle!

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What is Edpuzzle?

Edpuzzle is an online program that allows teachers to select **any** video they can find on YouTube, trim it as they wish, and embed questions within it. When teachers simply assign students videos to watch for homework, they often have no way to guarantee students are really watching them, or to ensure student comprehension as they progress through the video. With Edpuzzle, teachers can embed their own questions into video assignments, ensuring students' engagement and boosting their comprehension.



[Source 1](#)

What Can You Use Edpuzzle For?

The best qualities of Edpuzzle are its flexibility and convenience for teachers. You can use this program in a variety of ways in your classroom. One option would be to assign students an Edpuzzle video about a brand-new topic you'll cover with them next class. This strategy effectively flips the classroom, allowing students to begin the process of learning a new concept at home, freeing up classroom time for practice and application. Another alternative would be to use Edpuzzle to help scaffold new material for students. Often, students have forgotten prior concepts or standards that they'll need for an upcoming lesson. By assigning a class a scaffolding video before beginning a new topic, students will be given the opportunity to brush up on skills they might need to review. Finally, Edpuzzle can also be used in lieu of more conventional assignments such as quizzes or practice exercises to review or reinforce student learning.

Flipping the Classroom



[*Source 2*](#)



[*Source 3*](#)

In the traditional classroom model, students go to class, receive instruction from their teacher, and then go home to practice what they learned through homework. The problem with this strategy is that students don't usually encounter most of their comprehension issues when they're absorbing information, but when they're applying it. Students make their errors in their practice exercises, not in their lectures themselves! Unfortunately, since students usually work on their exercises at home in the traditional educational model, they can't ask the teacher or their peers for support.

In a flipped classroom, students watch a lecture or introductory video about a topic at home, coming to class with at least a basic understanding of the material. This means that the teacher is free to briefly review the material in person, and then supervise and help students as they work on classroom exercises or practice.

Why Should I Use Edpuzzle in my Classroom?

Edpuzzle is a tremendous force multiplier in the classroom. It allows a teacher to accomplish more, while working less! Having the capacity to take **any** YouTube video and adapt it into a lesson allows teachers to flip the classroom, personalize instruction for students, review student



[Source 4](#)

misconceptions, and allow students who

missed class to catch up to what everyone else has learned. Teachers' time is limited; they can't be everywhere at once. With Edpuzzle, they don't have to be! Different groups of students can be learning or reviewing different concepts, while the teacher supervises or goes between them helping as needed.

Adaptability

I would like to stress the adaptability of this project to any grade level and to any subject area. The mathematics standards that follow are specifically for 7th grade. However, the notions of flipping the classroom, personalizing the classroom, and ensuring student comprehension as they learn about / review a topic are relatable to multiple standards across grade levels and feasible for varied ages ranging from Elementary to High School.

Florida State Standards

MAFS.7.RP.1.1	Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.
MAFS.7.RP.1.2a	Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
MAFS.7.RP.1.2b	Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.

Goals & Objectives

The goal of this unit is to teach a given topic while flipping the classroom, allowing students to watch an instructional video at home with questions embedded into it, and then come to class to practice working on the material they learned at home.

Academic Core Objectives

- Find the unit rate of different fractions in context-based word problems.
(MAFS.7.RP.1.1)
- Test out the $\frac{y}{x}$ values of all the rows of a chart to determine its proportionality.
(MAFS.7.RP.1.2a)
- Understand the criteria a line must satisfy when it is graphed on the coordinate plane for it to be proportional. (MAFS.7.RP.1.2a)
- Test out the $\frac{y}{x}$ value of a point on a proportional line to ascertain the constant of proportionality of that line. (MAFS.7.RP.1.2b)
- Identify the constant of proportionality in an equation. (MAFS.7.RP.1.2b)

Course Outline & Overview

Lesson 1

- Using Edpuzzle, students will review how to convert between mixed numbers and improper fractions.
- Using Edpuzzle, students will review how to divide fractions.
- Using Edpuzzle, students will review how to divide fractions to find rates.
- Students will learn how to divide fractions to find unit rates.
- Students will be given the opportunity to practice their learned skills in class with peer and instructor support.

Lesson 2

- Using Edpuzzle, students will learn how to take the $\frac{y}{x}$ value of every ordered pair in a table and compare those values to determine the proportionality of a relationship.
- Using Edpuzzle, students will learn how to evaluate if a line on the coordinate plane represents a proportional relationship or not.
- Students will be given the opportunity to practice their learned skills in class with peer and instructor support.

Lesson 3

- Using Edpuzzle, students will learn how to take the $\frac{y}{x}$ of any point on a line to determine if it represents a proportional relationship.
- Using Edpuzzle, students will learn how to write an equation to represent a proportional relationship and how to find the constant of proportionality of a relationship from its equation.
- Students will be given the opportunity to practice their learned skills in class with peer and instructor support.

Lesson 1

Unit Standards	Objectives
MAFS.RP.1.1	Students will compute unit rates associated with ratios of fractions.
MAFS.RP.1.2a	Students will decide if two quantities are in a proportional relationship in tables or on the coordinate plane.
MAFS.RP.1.2b	Students will identify the constant of proportionality in tables, graphs, and equations.
Vocabulary	
Rate, Unit Rate, Constant of Proportionality, Numerator, Denominator, Mixed Number, Improper Fraction, Table, Coordinate Plane, Proportional, Not Proportional, Line, X-axis, & Y-axis.	
Materials	
Every student should have access to an electronic device at home, whether it be a desktop, laptop, tablet, or phone. The device can be personal or from school.	
Flip-the-Classroom Edpuzzle Assignment(s)	
Students will watch an Edpuzzle video reviewing a scaffolding skill of how to convert between Mixed Numbers and Improper Fractions.	
Students will watch an Edpuzzle video reviewing a scaffolding skill of how to divide fractions.	
Students will watch an Edpuzzle video reviewing the scaffolding skill of how to divide fractions to find rates.	
Bell Ringer	
The instructor will do a quick review / summary of all three Edpuzzle videos students watched in preparation for today's lesson. The review / summary should not be more than 10 minutes long.	
Lesson & Classwork	
Students will be taught a brief, but thorough lesson explaining how to divide fractions and mixed numbers to find <i>unit</i> rates.	
Students will be given a series of different exercises where they must practice dividing fractions and mixed numbers to find unit rates. The instructor will walk among the students, correcting errors and addressing misconceptions.	
Exit Ticket	
Students will be paired together. Each student pair will be given a different real-world rate which they must then find the unit rate for. Each student pair will be tasked with writing a sentence explaining what each unit rate means in the context of their real-world situation.	
Home Learning	
Students will watch an Edpuzzle video teaching them how to take the $\frac{y}{x}$ value of each row of a table and then compare all their results. If all the results are the same, the table is proportional. If all the results are not the same, the table is not proportional.	
Students will watch an Edpuzzle video teaching them how to evaluate whether a relationship shown by a line on the coordinate plane is proportional or not. If the line is straight and goes through the origin, it's proportional. If not, it's not proportional.	

Accommodations
SPED & ELL: Some students will receive personal assistance – teacher, aide, peer, volunteer, or interpreter.
SPED: Some students may receive additional time to complete the assignment.
SPED & ELL: Some students may receive guides or prompts for specified tasks.
Differentiated Instruction
As students complete their bell ringers / classwork, they will be encouraged to assist one another as they are solving their problems and to get up and help one another when possible. This will be peer-to-peer DI.
As students complete their bell ringers / classwork, the instructor will walk among them pulling small groups up to the board or helping individual students with individual questions and concepts based on who is struggling with different skills or tasks.

Lesson 2

Unit Standards	Objectives
MAFS.RP.1.1	Students will compute unit rates associated with ratios of fractions.
MAFS.RP.1.2a	Students will decide if two quantities are in a proportional relationship in tables or on the coordinate plane.
MAFS.RP.1.2b	Students will identify the constant of proportionality in tables, graphs, and equations.
Vocabulary	
Rate, Unit Rate, Constant of Proportionality, Numerator, Denominator, Mixed Number, Improper Fraction, Table, Coordinate Plane, Proportional, Not Proportional, Line, X-axis, & Y-axis.	
Materials	
Every student should have access to an electronic device at home, whether it be a desktop, laptop, tablet, or phone. The device can be personal or from school.	
Flip-the-Classroom Edpuzzle Assignment(s)	
Students will watch an Edpuzzle video teaching them how to take the $\frac{y}{x}$ value of each row of a table and then compare all their results. If all the results are the same, the table is proportional. If all the results are not the same, the table is not proportional.	
Students will watch an Edpuzzle video teaching them how to evaluate whether a relationship shown by a line on the coordinate plane is proportional or not. If the line is straight and goes through the origin, it's proportional. If not, it's not proportional.	
Bell Ringer	
The instructor will do a quick review / summary of all the Edpuzzle videos students watched in preparation for today's lesson. The review / summary should not be more than 10 minutes long.	
Lesson & Classwork	

Students will be given a series of different exercises where they must practice finding the $\frac{y}{x}$ of every ordered pair represented in a table, and then ascertaining whether the relationship between the variables is proportional. The instructor will walk among the students, correcting errors and addressing misconceptions.

Students will be given a series of different exercises where they must practice looking at different examples of relationships graphed on the coordinate plane. Students must then determine if those lines represent proportional or non-proportional relationships. The instructor will walk among the students, correcting errors and addressing misconceptions.

Students will be given a series of different exercises where they must take the lines of different proportional relationships graphed on the coordinate plane and make tables of their x and y values. This exercise will better help students understand the relationship between the graphs of proportional relationships and tables representing them as well. The instructor will walk among the students, correcting errors and addressing misconceptions.

Exit Ticket

Students will be given a 10-question exit ticket assessing their comprehension of the standards covered in class today.

Home Learning

Students will watch an Edpuzzle video showing them how to take the $\frac{y}{x}$ of any point on the line of a proportional relationship to determine the constant of proportionality of that proportional relationship.

Students will watch an Edpuzzle video introducing them to the concept of the equation of a proportional relationship. The video will touch on how an equation is created from the table of a proportional relationship and it will also show students how to find the constant of proportionality from the equation of a proportional relationship.

Accommodations

SPED & ELL: Some students will receive personal assistance – teacher, aide, peer, volunteer, or interpreter.

SPED: Some students may receive additional time to complete the assignment.

SPED & ELL: Some students may receive guides or prompts for specified tasks.

Differentiated Instruction

As students complete their bell ringers / classwork, they will be encouraged to assist one another as they are solving their problems and to get up and help one another when possible. This will be peer-to-peer DI.

As students complete their bell ringers / classwork, the instructor will walk among them pulling small groups up to the board or helping individual students with individual questions and concepts based on who is struggling with different skills or tasks.

Lesson 3

Unit Standards	Objectives
MAFS.RP.1.1	Students will compute unit rates associated with ratios of fractions.
MAFS.RP.1.2a	Students will decide if two quantities are in a proportional relationship in tables or on the coordinate plane.
MAFS.RP.1.2b	Students will identify the constant of proportionality in tables, graphs, and equations.
Vocabulary	
Rate, Unit Rate, Constant of Proportionality, Numerator, Denominator, Mixed Number, Improper Fraction, Table, Coordinate Plane, Proportional, Not Proportional, Line, X-axis, & Y-axis.	
Materials	
Every student should have access to an electronic device at home, whether it be a desktop, laptop, tablet, or phone. The device can be personal or from school.	
Flip-the-Classroom Edpuzzle Assignment(s)	
Students will watch an Edpuzzle video showing them how to take the $\frac{y}{x}$ of any point on the line of a proportional relationship to determine the constant of proportionality of that proportional relationship.	
Students will watch an Edpuzzle video introducing them to the concept of the equation of a proportional relationship. The video will touch on how an equation is created from the table of a proportional relationship and it will also show students how to find the constant of proportionality from the equation of a proportional relationship.	
Bell Ringer	
The instructor will do a quick review / summary of all the Edpuzzle videos students watched in preparation for today's lesson. The review / summary should not be more than 10 minutes long.	
Classwork	
Students will be given a series of different exercises where they must take a point from the line of a proportional relationship and determine the constant of proportionality of that line / relationship. The instructor will walk among the students, correcting errors and addressing misconceptions.	
Students will be given a series of different exercises where they must write an equation for a proportional relationship from that relationship's table. The instructor will walk among the students, correcting errors and addressing misconceptions.	
Students will be given a series of different exercises where they must identify the constant of proportionality from the equation of a proportional relationship. The instructor will walk among the students, correcting errors and addressing misconceptions.	
Exit Ticket	
Students will take a 20-question formative assessment reviewing the standards covered in this unit: MAFS.RP.1.1, MAFS.RP.1.2a, & MAFS.RP.1.2b.	
Home Learning	

Students will be given a frontloading Edpuzzle assignment for the next topic they will study involving Ratios & Proportional Relationships.

Accommodations

SPED & ELL: Some students will receive personal assistance – teacher, aide, peer, volunteer, or interpreter.

SPED: Some students may receive additional time to complete the assignment.

SPED & ELL: Some students may receive guides or prompts for specified tasks.

Differentiated Instruction

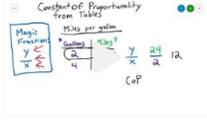
As students complete their bell ringers / classwork, they will be encouraged to assist one another as they are solving their problems and to get up and help one another when possible. This will be peer-to-peer DI.

As students complete their bell ringers / classwork, the instructor will walk among them pulling small groups up to the board or helping individual students with individual questions and concepts based on who is struggling with different skills or tasks.

Edpuzzle at Work!

edpuzzle Search or paste YouTube URL + Add Content ?

← Video Assignment Edit assigned video View as a student ...



Constant of Proportionality from Tables

By Gareth Pearson

Live mode

Start Date: Oct. 8th 9:00am

Due Date: Oct. 8th 11:59am

Prevent Skipping

Turn on CCs

[Update on Google Classroom](#)

You need to change the due date to a date that hasn't already passed in order to post this assignment.

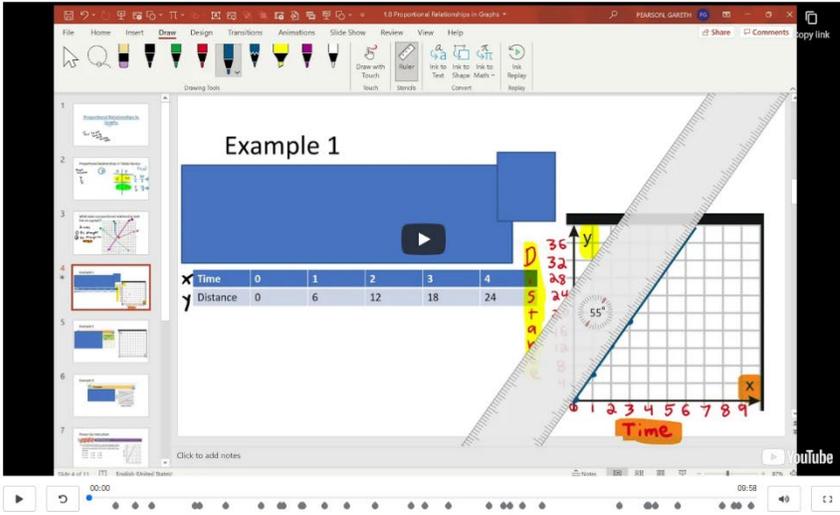
Students Questions

Student Name	Watched	Grade	Last watched	Turned in	
[Redacted]	<div style="width: 100%; height: 10px; background-color: green;"></div>	100/100	Oct. 12th	Late	...
[Redacted]	<div style="width: 89%; height: 10px; background-color: green;"></div>	89/100	Oct. 8th	On time	...
[Redacted]	<div style="width: 89%; height: 10px; background-color: green;"></div>	89/100	Oct. 8th	On time	...
[Redacted]	<div style="width: 100%; height: 10px; background-color: green;"></div>	100/100	Oct. 8th	Late	...
[Redacted]	<div style="width: 100%; height: 10px; background-color: green;"></div>	100/100	Oct. 8th	On time	...
[Redacted]	<div style="width: 100%; height: 10px; background-color: green;"></div>	100/100	Oct. 11th	Late	...
[Redacted]	<div style="width: 100%; height: 10px; background-color: green;"></div>	100/100	Oct. 8th	Late	...
[Redacted]	<div style="width: 100%; height: 10px; background-color: green;"></div>	100/100	Oct. 8th	Late	...

edpuzzle Search or paste YouTube URL + Add Content ?

1.8 Proportional Relationships in Graphs Review

By Gareth Pearson. Due on Oct. 13th, 11:59am



Example 1

x	0	1	2	3	4
Time	0	1	2	3	4
Distance	0	6	12	18	24

Handwritten notes on graph: D, 36, 32, 28, 24, 20, 16, 12, 8, 4, 0, 55°, Time, X, Y.

Video events

- 00:40 Open-ended
- 00:55 Multiple-choice
- 01:34 Open-ended
- 01:37 Open-ended
- 02:01 Open-ended
- 02:33 Open-ended
- 02:50 Open-ended
- 02:53 Open-ended
- 03:09 Open-ended
- 03:11 Open-ended
- 03:30 Open-ended
- 03:50 Open-ended

Acknowledgements

I would be remiss if I did not give a huge thank you to and acknowledge Ms. Tannis Carpenter, a science teacher and coworker at Miami Beach Nautilus Middle School. She uses Edpuzzle with her Biology students and was the one who first introduced me to this awesome program. She was the inspiration for my own extensive use of Edpuzzle in my classroom.

Resources List

1. [Edpuzzle Tutorial for Teachers](#) – New EdTech Classroom
2. [Edpuzzle YouTube Channel](#) – Edpuzzle
3. [Edpuzzle Tutorial for Teachers 2020](#) – EdTech Cafe
4. [10 Creative Ways to Use Video in the Classroom](#) - Edpuzzle

References

Source	Citation
Source 1	Edpuzzle. (2020). What is Edpuzzle? YouTube. Retrieved October 28, 2021, from https://www.youtube.com/watch?v=-L62wAxCzEM .
Source 2	Edpuzzle. (2021). How to Flip Your Classroom with Edpuzzle. YouTube. Retrieved October 28, 2021, from https://www.youtube.com/watch?v=V2qw_zHK380 .
Source 3	University of Washington. (2021, October 7). Flipping the classroom. Center for Teaching and Learning. Retrieved October 28, 2021, from https://teaching.washington.edu/topics/engaging-students-in-learning/flipping-the-classroom/ .
Source 4	Sullivan, D. (2020, February 16). A foolproof formula for entrepreneurial success. A Foolproof Formula For Entrepreneurial Success. Retrieved October 28, 2021, from https://resources.strategiccoach.com/the-multiplier-mindset-blog/a-foolproof-formula-for-entrepreneurial-success .