

Math Weekly Lesson Preparation Guide

Teacher Name: Abigail Cobbinah, Martin Asare	Grade: 10
Week of: January 22 nd - January 24 th , 2025	Unit: Chapter 7 & 8 Lesson Numbers: 7.5 & 8.1

Purpose: The Weekly Lesson Preparation Guide is to provide a structure that encourages teachers to think through and internalize the daily/weekly instructional expectations.

Planning Questions	Lesson 7-7.5	Lesson 7-7.5	Lesson 7-7.5	Lesson 8-8.1	Lesson 8-8.1
	Monday 20/01	Tuesday 21/01	Wednesday 22/01	Thursday 23/01	Friday 24/01
 Planning Questions 1. Which specific Tennessee standard(s) are being addressed in this lesson? What is the focus of this lesson? What will the lesson objective be for each day? 	Lesson 7-7.5 Monday 20/01 G.GPE. A.1 Use coordinates to justify geometric relationships algebraically and to solve problems. I can identify trapezoids and kites. I can use properties of trapezoids and kites to solve	Lesson 7-7.5 Tuesday 21/01 G.GPE. A.1 Use coordinates to justify geometric relationships algebraically and to solve problems. • I can identify trapezoids and kites. • I can use properties of trapezoids and kites to solve problems.	Lesson 7-7.5 Wednesday 22/01 G.GPE. A.1 Use coordinates to justify geometric relationships algebraically and to solve problems. I can identify trapezoids and kites. I can use properties of trapezoids and kites to solve	Lesson 8-8.1 Thursday 23/01 G.SRT. A.2 Define similarity in terms of transformations. Use transformations to determine whether two figures are similar. G.SRT. B.3 Use congruence and similarity criteria for triangles to solve problems and to justify relationships in geometric figures.	Lesson 8-8.1 Friday 24/01 G.SRT. A.2 Define similarity in terms of transformations. Use transform- ations to determine whe- ther two figures a similar. G.SRT. B.3 Use congruence and similarity criteria for triangles to solve problems and to
	 I can find the length of the midsegment of a trapezoid. 	 I can find the length of the midsegment of a trapezoid. 	 I can find the length of the midsegment of a trapezoid. 	 I can use similarity statements. I can find corresponding 	problems and to justify relationships in geometric figures.

Adapted from TDOE Unit and Lesson Preparation Guides

	I can explain the hierarchy of quadrilaterals.	 I can explain the hierarchy of quadrilaterals. 	I can explain the hierarchy of quadrilaterals.	 lengths in similar polygons. I can find perimeters and areas of similar polygons. I can decide whether polygons are similar. 	I can use similarity statements. I can find corresponding lengths in similar polygons. I can find perimeters and areas of similar polygons. I can decide whether polygons are similar.
2. How will this learning prepare students for success on the unit assessment? How does it coherently connect to previous lessons and build to future ones?	This section focuses on the student's ability to understand the properties of Trapezoids and Kites which the future lessons build upon.	This section focuses on the student's ability to understand the properties of Trapezoids and Kites which the future lessons build upon.	This section focuses on the student's ability to understand the properties of Trapezoids and Kites which the future lessons build upon.	This section focuses on the student ability to understand similar which lessons 5-5.8 build upon.	This section focuses on the student ability to understand similar which lessons 5-5.8 build upon.
 3. Complete all tasks included in the lesson and review the sample/anticipated student responses. For each task consider: What are the multiple solution paths 	Students will work together on activities displayed on the smart board from the Big Ideas Geometry lessons. Students might take several approaches to	Students will work together on activities displayed on the smart board from the Big Ideas Geometry lessons. Students might take several approaches to	Students will work together on activities displayed on the smart board from the Big Ideas Geometry lessons. Students might take several approaches to solve problems related to trapezoids and kites:	Students will work together on activities displayed on the smart board from the Big Ideas Geometry lessons. Students may approach this using multiple methods: Geometric Properties	Students will work together on Activities displayed on the smart board from the Big Ideas Geometry lesson

	students might	solve problems related to	solve problems related to	1.	Using	Path: This approach	Geometric
	take to solve	trapezoids and kites:	trapezoids and kites:		Coordinate	primarily focuses on	Properties Path:
	this problem?				Geometry:	conceptual	This approach
•	What is the	• Using	• Using		Students could	understanding and	primarily
	purpose of this	Coordinate	Coordinate		place the	procedural fluency,	focuses on
	task?	Geometry:	Geometry:		trapezoid or kite	as students need to	conceptual
	Specifically,	Students could	Students could		on a coordinate	recognize the	understanding a
	of rigor are	place the	place the		plane and apply	geometric properties of	procedural
	being	trapezoid or kite	trapezoid or kite		geometric	congruence and	fluency, as
	addressed	on a coordinate	on a coordinate		formulas (e.g.,	similarity and apply	students need to
	(conceptual	plane and apply	plane and apply		distance formula)	these to find unknown	recognize the
	understanding,	formulas (o. g	formulas (o.g.		to identify the	values. There is less	geometric
	procedural	distance formula)	distance formula)		properties of the	emphasis on algebraic	properties of
	fluency, and/or	to identify the	to identify the		shape and find	manipulation, and	congruence and
	application)?	properties of the	properties of the		the length of the	more focus on	similarity and
	How does this	shape and find the	shape and find the		midsegment.	understanding how	apply these to
	the solution	length of the	length of the	2.	Using Properties	properties of the	find unknown
	nath	midsegment.	midsegment.		of Trapezoids: By	figures relate to each	values. There is
•	Given this	Using Properties	• Using Properties		leveraging the	other.	less emphasis
	purpose, what	of Trapezoids:	of Trapezoids:		definition of the	Proportions Path: This	on algebraic
	key concepts	By leveraging the	By leveraging the		midsegment of a	path emphasizes	manipulation,
	and vocabulary	definition of the	definition of the		trapezoid (the	procedural fluency by	and more focus
	might students	midsegment of a	midsegment of a		average of the	applying proportional	on understandin
	need to	trapezoid (the	trapezoid (the		lengths of the two	relationships between	how properties
	understand to	average of the	average of the		parallel sides),	corresponding sides of	of the figures
	access the	lengths of the two	lengths of the two		students can	similar polygons. It	relate to each
	task?	parallel sides),	parallel sides),		calculate it	also requires	other.
		students can	students can		directly without	conceptual	Proportions
		directly without	directly without		using	understanding of how	Path: This path
		using coordinates	using coordinates		coordinates. This	scale factors affect the	emphasizes
		This path	This path		path emphasizes	figures' dimensions.	procedural
		emphasizes	emphasizes		understanding	This solution path is	fluency by applyi
		understanding the	understanding the		the relationship	often more algebraic,	proportional
		relationship	relationship		between the	requiring students to	relationships
		· •	•			•	•

between the	between the	parallel sides and	solve for unknown	between
parallel sides and	parallel sides and	the midsegment.	values using ratios.	corresponding
the midsegment.	the midsegment.	3. Using	Coordinate Geometry	sides of similar
• Using	• Using	Transformations:	Path: This path	polygons. It also
Transformations :	Transformations:	Students could	encourages	requires
Students could	Students could	apply	conceptual	conceptual
apply	apply	transformations	understanding	understanding o
transformations	transformations	like reflection or	through the use of	how scale
like reflection or	like reflection or	translation to	coordinate geometry,	factors affect the
translation to help	translation to help	help visualize or	where students apply	figures'
visualize or	visualize or	manipulate the	geometric principles in	dimensions.
manipulate the	manipulate the	trapezoid or kite	the context of	This solution path
trapezoid or kite	trapezoid or kite	into a more	coordinates It also	often more
into a more	into a more	convenient	develops procedural	algebraic
convenient	convenient	position for	fluency by requiring	requiring student
position for	position for	measurement or	students to apply	to solve for
measurement of	measurement or	problem solving	formulas for distance	
problem-sorving.	problem-solving.	problem-solving.	along and	
• In groups,	• In groups,	•	stope, and	
students could	students could	• In groups,		Coordinate
discuss and write	discuss and write	students could	determine congruency	Geometry Path:
definitions based	definitions based	discuss and write	or similarity.	inis path
on collaborative	on collaborative	definitions based	 In groups, 	encourages
problem-solving.	problem-solving.	on collaborative	students could	conceptual
They might share	They might share	problem-solving.	discuss and	understanding
their methods of	their methods of	They might share	write definitions	through the
visualizing or	visualizing or	their methods of	based on	use of coordinate
conceptualizing	conceptualizing	visualizing or	collaborative	geometry, where
the properties of	the properties of	conceptualizing	problem-	students apply
Trapezoid and	Trapezoid and	the properties of	solving. They	geometric
Kite.	Kite.	Trapezoid and	might share	principles in the
		Kite.	their methods	context of
 Students will 	 Students will 		of visualizing or	coordinates.
reflect on their	reflect on their		conceptualizing	It also develops
understanding of	understanding of			procedural
5	5			

the various forms of transformations and summarize the skills and strategies they use. Vocabulary Trapezoid Bases Base Angles Legs Isosceles Trapezoid Midsegment of a Trapezoid Kite	the various forms of transformations and summarize the skills and strategies they use. Vocabulary • Trapezoid • Bases • Base Angles • Legs • Isosceles Trapezoid • Midsegment of a Trapezoid • Kite	 Students will reflect on their understanding of the various forms of transformations and summarize the skills and strategies they use. Vocabulary Trapezoid Bases Base Angles Legs Isosceles Trapezoid Midsegment of a Trapezoid Kite 	the similar polygons. • Students will reflect on their understanding transformations and similarity and summarize the skills and strategies they use. Vocabulary • Congruent Figures • Scale Factor • Similar Polygons	fluency by requiring student to apply formulas for distance, slope, and transformations to determine congruency or similarity. In groups, studen could discuss and write definitions based collaborative problem-solving. They might share their methods of visualizing or conceptualizing the similar polygons.
				Students will reflect on their understanding transformation s and similarity and summarize the skills and strategies they use.

4.	What specific tasks/problems will you use to reveal understanding of	Using Do Now and Practice problems in the lesson plan and Exit Ticket.	Using Do Now and Practice problems in the lesson plan and Exit Ticket.	Using Do Now and Practice problems in the lesson plan and Exit Ticket.	Using Do Now and Practice problems in the lesson plan and Exit Ticket.	Vocabulary Congruent Figures Scale Factor Similar Polygons Using Do Now an Practice problem in the lesson pla and Exit Ticket.
	the grade-level standard(s)? (refer to the <u>Instructional</u> <u>Focus Document</u> Evidence of Learning Statements)					
5.	In what ways will students use the <u>Standards for</u> <u>Mathematical</u> <u>Practice</u> to develop mathematical understandings?	Completing the lessons students will be able to make sense of the problem after understanding the key features, in turn being able to look for and make use of structures. They should be able to differentiate translations, reflections and find real-world examples of them.	Completing the lessons students will be able to make sense of the problem after understanding the key features, in turn being able to look for and make use of structures. They should be able to differentiate translations, reflections and find real-world examples of them.	Completing the lessons students will be able to make sense of the problem after understanding the key features, in turn being able to look for and make use of structures. They should be able to differentiate translations, reflections and find real-world examples of them.	Completing the lessons students will be able to make sense of the problem after understanding the key features, in turn being able to look for and make use of structures. They should be able to differentiate translations, reflections and find real-world examples of them.	Completing the lessons students will be able to ma sense of the problem after understanding the key features, in turn being able to look for and mak use of structures. They should be able to differentia translations, reflections and fin real-world examples of them

6.	What mathematical mistakes or misconceptions do you anticipate? What supports will you build into the lesson to ensure all students have the opportunity to experience success in this grade level work? (refer to the Instructional Focus Document's)	Students may struggle to understand some of the vocabulary and how to use them in solving a problem related to the vocabulary.	Students may struggle to understand some of the vocabulary and how to use them in solving a problem related to the vocabulary.	Students may struggle to understand some of the vocabulary and how to use them in solving a problem related to the vocabulary.	Students may struggle to understand some of the vocabulary and how to use them in solving a problem related to the vocabulary.	Students may struggle to understand some of the vocabulary and how to use them in solving a problem related to the vocabulary.
7.	What probing questions might you ask to encourage perseverance or push students to new understanding? What questions might you ask to elicit prior content knowledge, connect to students' experiences, and set up the task to ensure students understand the task without over- scaffolding or funneling?	What properties of trapezoid and kite do you know?	What properties trapezoid and kite do you know?	What properties of trapezoid and kite do you know?	What are similar polygons and how can you differentiate?	What are similar polygons and how can you differentiate?

8. What technology tools, mathematical and/or concrete manipulatives will be necessary to support mathematical understanding?	Rulers, pencils, highlighters, student companion, graph paper. Teacher will have dry erase marker in hands with examples of graphs, pen and clipboard to check off what students are doing during the CFU's Students will have the student companion, pencil, practice work, graph paper	Rulers, pencils, highlighters, student companion, graph paper. Teacher will have dry erase marker in hands with examples of graphs, pen and clipboard to check off what students are doing during the CFU's Students will have the student companion, pencil, practice work, graph paper	Rulers, pencils, highlighters, student companion, graph paper. Teacher will have dry erase marker in hands with examples of graphs, pen and clipboard to check off what students are doing during the CFU's Students will have the student companion, pencil, practice work, graph paper	Rulers, pencils, highlighters, student companion, graph paper. Teacher will have dry erase marker in hands with examples of graphs, pen and clipboard to check off what students are doing during the CFU's Students will have the student companion, pencil, practice work, graph paper	Rulers, pencils, highlighters, Student companion, graph paper. Teacher will have dry erase marker hands with examples of graphs, pen and clipboard to check off what student are doing during the CFU's Students will have the student companion , pencil, practice work,
					granh naner
Additional Considerations					
If your lesson contains homework, how will you utilize the work? Will you need to send scaffolding notes home? Is there a strategy you can use to maximize homework?	Student homework (if assigned) is in the student companion book. Students will have scaffolded examples from taking notes in the Big Ideas Geometry Student companion. If companions are not	Student homework (if assigned) is in the student companion book. Students will have scaffolded examples from taking notes in the Big Ideas Geometry Student companion. If companions are not	Student homework (if assigned) is in the student companion book. Students will have scaffolded examples from taking notes in the Big Ideas Geometry Student companion. If companions are not	Student homework (if assigned) is in the student companion book. Students will have scaffolded examples from taking notes in the Big Ideas Geometry Student companion. If	Student homework (if assigned) is in the student companion book Students will have scaffolded examples from taking notes
	available students will	available students will	available students will	companions are not	

be asked to sketch and	be asked to sketch and	be asked to sketch and	available students will	in the Big Ideas
example of each of the	example of each of the	example of each of the	be asked to sketch and	Geometry Studer
graph characteristics	graph characteristics	graph characteristics	example of each of the	companion. If
that were covered in the	that were covered in the	that were covered in the	graph characteristics	companions are
lessons. If students	lessons. If students	lessons. If students have	that were covered in	not available
have access to the 1 to	have access to the 1 to	access to the 1 to 1	the lessons. If students	students will be
1 device, problems will	1 device, problems will	device, problems will be	have access to the 1 to	asked to sketch
be assigned to students	be assigned to students	assigned to students	1 device, problems will	and example of
through the online book	through the online book	through the online book	be assigned to	each of the graph
portal and problems will	portal and problems will	portal and problems will	students through the	characteristics
be scaffolded. Students	be scaffolded. Students	be scaffolded. Students	online book portal and	that were covere
should have Student	should have Student	should have Student	problems will be	in the lessons. If
companions/notes to	companions/notes to	companions/notes to	scaffolded. Students	students have
use as examples as well	use as examples as well	use as examples as well	should have Student	access to the
as the online book (if	as the online book (if	as the online book (if	companions/notes to	1 to 1 device,
assessable.)	assessable.)	assessable.)	use as examples as	problems will be
			well as the online book	assigned to
			(if assessable.)	students through
				the online book
				portal and
				problems will be
				scaffolded.
				Students should
				have
				Student
				companions
				/notes
				to use as
				examples
				as well as the
				online
				4 book
				(if assessable.)

Adapted from TDOE Unit and Lesson Preparation Guides Click <u>here</u> to access 2023 Revised Math Standards Resources: <u>https://bestforall.tnedu.gov/</u> September 2024

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