LIVERPOOL JOHN MOORES UNIVERSITY

PGCE Secondary

Student Teacher Lesson Plan

2026/27

Student Teacher	Mike Sweeney	**Observer**	Daniel Dennis	
Topic / Unit	Pythagoras' Theorem		**Date**	21/10/26
Class / Key Stage	Year 9		**Room**	2.07

My related targets this week are:

To plan key questions and who to direct them to

After discussions about my progress, I have identified the following focus for my observer:

Consider if who I choose to ask particular questions to is appropriate

What do I want the students to learn? What are the objectives of this lesson?

Finding the hypotenuse in right angled triangles using pythagoras' theorem

What is this lesson building on, and building towards?

Prior knowledge of squares and roots, rearranging equations, identifying right angles and hypotenuse. Building towards finding short side and into trigonometry

What might the pupils find difficult, or what misconceptions might they already have?

Identifying the hypotenuse and using as 'c' in theorem, multiplying and dividing by 2 when squaring or square rooting

What key / new terminology am I introducing?

Hypotenuse, Pythagoras' Theorem

What resources do I need?

n/a

What health and safety considerations do I need to make?

n/a

Lesson Parts

How will the pupils enter the classroom?	
Who is doing what?	What adaptations are needed?
Stand at the door and welcome pupils, prompt them to engage with the do now task on whiteboards, repeat these messages whilst keeping an eye in the classroom and scanning the corridor.	Check in with JB on entry, they let me know how they are to help settle into the lesson or if they need some time

Part 1 Key Learning		
Who is doing what?	What adaptations are needed?	How do I check understanding?
Review of the entrance task, I will ask to see mini whiteboards to review which questions are worth skipping	Not asking JB direct questions if not spoke with him about it during task	Use whiteboard responses to see strong questions and not waste time reviewing. Some cold calling to probe on questions to be reviewed
How will I transition to the next part?		
Directly ask all pupils to put whiteboards away, use a countdown to get attention after this		

Part 2 Key Learning		
Who is doing what?	What adaptations are needed?	How do I check understanding?
Introduce that the lesson is on pythagoras, a brief background of what it is and the mathematician. Next introduce the theorem and probe the meaning	N/A	Use cold calling to lead pupils to try and explain the squares and links 2 short sides to hypotenuse
How will I transition to the next phase?		
Move into examples		

Part 3 Key Learning		
Who is doing what?	What adaptations are needed?	How do I check understanding?
Demonstrate how the theorem proves that a triangle is right angled, then show a non-example, ask them to use whiteboards to do 3 questions Yes or No 'is this triangle right angled' showing the method	Go to JB at the start of whiteboard task to check understanding and not choose his whiteboard if I want to show responses	Use whiteboards to check they can use the theorem to prove is a triangle right angled, insist on workings and a response Y/N
How will I transition to the next phase?		
Put whiteboards away, use countdown to ensure all away and attention on me		

Part 4 Key Learning		
Who is doing what?	What adaptations are needed?	How do I check understanding?
Show an example of the hypotenuse missing and probe to lead into method if possible before demonstrating to all how that works, do another with cold calling for responses, copy this as a model into books, before then trying some more on whiteboards	Not ask JB in cold calling, go to him first in whiteboard task to check understanding	Whiteboards and insist on method to see success and understanding. Final question identify anyone who isn't quite there and support for independent task next.
How will I transition to the next phase?		
Whiteboards away, use countdown to get attention before explaining the task next		

Part 5 Key Learning		
Who is doing what?	What adaptations are needed?	How do I check understanding?
Give clear instruction of independent task, show workings in book in style of the models, glue sheet in book	Go to JB at the start of the task to check understanding	Go to pupils identified in previous whiteboard who need support, then circulate, checking some responses. Present the first couple of answers after a short while to ensure pupils to know they need support
How will I transition to the next phase?		
Give time warnings, a few minutes, 1 minute, finish question you're on, countdown for full attention		

Part 6 Key Learning		
Who is doing what?	What adaptations are needed?	How do I check understanding?
Present answers, pupils will mark their own work, ask if there are any they'd like me to go over otherwise choose 1 early and 1 problem solving question to go through with everyone, no cold calling here. One final plenary question on whiteboards before packing away	N/A	Show on whiteboards 'how many you got right out of how many you attempted'. Plenary question on a whiteboard, identify students who haven't grasped the topic to pick up next lesson

How will the pupils leave the classroom?	
Who is doing what?	What adaptations are needed?
Pack whiteboards, books away, stand behind chairs ready to drop off on the way out, give 10 seconds to have this done and stood in silence	N/A

Reflections

What feedback did you receive / reflections do you have on this lesson?
What impact did your adaptations have on pupils? How do you know this?
What discussion points / questions will you take to your next mentor meeting?