

2.1 Lesson plan 4 Outline

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Lesson plan 4 topic	Initial Flight Planning
Lesson plan 4 objectives	Students will be able to determine True Course and magnetic course for a planned, no wind flight using an aviation Plotter
Anticipatory set or lesson opening (to activate students` prior learning or draw student interest or involvement)	In your journal, explain the difference between Magnetic North and True North. Use these terms: <ul style="list-style-type: none"> • North Pole • Magnetic North Pole • Isogonic Lines
Direct Instruction	The lesson will begin with passing out aviation plotters. Students will retrieve their New York Sectional Chart for use in this lesson. Next, the teacher will show and explain a PowerPoint presentation on the use of technical layout and use of the Plotter. Students will then watch two videos on the practical use of the Plotter.
Guided Practice	Direct instruction with the use of an Elmo will be used to go through step-by-step instruction for a planned flight from Norwood airport to Turner`s Fall airport.
Independent Practice/Differentiated Activities	Each student will need a large desk area to work on the flight plan plot. The teacher will circulate for independent help, as well as use advanced students to help with differentiated instruction
Reflection on employability skills	Flight planning is the essential first step in aerial navigation. Air Traffic Controllers and professional pilots need to master these skills in order to continue their career pursuit.
Lesson Closure	In your journal, explain why you chose certain check point over other possible check points.
Summative/end of lesson assessment	Tomorrow`s lesson will be to create a “no wind” flight plan. Students will need to use today`s lesson as the basis for tomorrow`s work product
References / Resources / Teacher Preparation	You Tube links: https://www.youtube.com/watch?v=pRJau0y5RHY https://www.youtube.com/watch?v=9eJUioUWkPc Attached Powerpoint, plotters, pencils and Sectional Charts

Using the Plotter

1. What are the three main uses of a Plotter?
2. How long is a Statute Mile?
3. How long is a Nautical Mile?

Plotting your course from Norwood Municipal Airport to Turner's Falls Airport

1. Using your plotter as a straight edge, draw a line with a pencil from Norwood to Turner's Falls.
2. Align the small circle in the middle of the plotter to the nearest line of longitude.
3. Record the westerly course. The number must be between 181 and 359.
4. Find the Magnetic Variation by reading it on the nearest Isogonic line. It will be a dashed line at an angle to the line of longitude. There are four of these on your chart. Which of the four will you use? Hint – it will be a number followed by the degrees symbol (°).

5. Now let's do some calculations:

True Course _____

Magnetic Variation _____

Magnetic Course _____

6. Choose two different airports and plot your course.

Departure Airport _____ Destination Airport _____

True Course _____

Magnetic Variation _____

Magnetic Course _____

Departure Airport _____ Destination Airport _____

True Course _____

Magnetic Variation _____

Magnetic Course _____