

21st Century Lesson Cycle Template

Grade: 10

Subject: Math 10 PreIB

Textbook: Mathematics for the International Student Pre-Diploma SL and HL (second edition) by Haese & Harris

Topic 1: Distance between 2 Points

Driving Question:

Can we develop a method to determine the distance between any two coordinate points on a Cartesian plane?

Specific Curriculum Outcome:

RF08 Students will be expected to solve problems that involve the distance between two points and the midpoint of a line segment.

Prior Knowledge:

- Basic knowledge of how to plot points on a Cartesian Plane
- Pythagorean Theorem

Screencast Link(s):

1. Prior knowledge - <https://youtu.be/Rue5DII4igk>
2. Deriving the Distance Formula – https://youtu.be/X6hAzaSm4_8
3. Distance Formula Examples - https://youtu.be/Cf7GyA_N0aw

Link for Distance Formula Practice Sheet (from Kuta Software):

<http://cdn.kutasoftware.com/Worksheets/Geo/3-The%20Distance%20Formula.pdf>

Expected Time: One Class (75 minutes)

Resources:
(Tools & Tech)

Lesson Procedure

<p><u>Distance Formula Practice Worksheet</u></p>	<p><i>We do:</i></p> <p>Working in groups of 2-3, students will be given time to practice some basic problems involving the distance formula. This will provide them with the opportunity to ensure they understand how to use the formula and to ask for clarification if they need it.</p>								
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	<p><i>We share:</i></p> <p>After students have had the chance to try the questions, volunteers will be asked to write their solutions on the board. This will give the class a chance to provide each other with constructive criticism. As well, this will serve as an informal way for the teacher to assess students' understanding of the topic so far.</p>								
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<p>WRAP UP/REMINDERS:</p> <p>Students will be asked to review all of today's material for homework in preparation for tomorrow's work period.</p>									
<p style="text-align: center;">Differentiation:</p>									
<p>Modification:</p> <p>Allowing students to watch the video on their own devices allows them to work at their own pace. If students need to re-watch a step they have the ability to do so.</p>	<p>Enrichment:</p> <p>Students who have a strong grasp of how to work with the distance formula can assist their classmates who may be having difficulty.</p>								
<p>Evaluation:</p> <p>During the first class, as students are working, the teacher should be circulating and assisting students where necessary. This will provide the teacher with the opportunity to see how students are progressing in this lesson. At the end of the class, the teacher will be able to assess students' understanding of the topic when they are given the opportunity to share their answers with the class.</p>									

As well, any discussion that takes place while answers are being presented will serve as a way to check in on students' progress.

Teacher Reflection:

On-Line Resources:

[Distance Formula Worksheet](#) provided free by Kuta Software