

Lesson Plan Format

(an optional resource)

In the context of the *PPAT*® Assessment, this lesson plan format is a template provided for teacher candidates to use as they develop well-planned and structured lessons. This resource also can help a teacher candidate better understand and design meaningful daily lessons that will positively enhance instructional practice and student learning. It is intended for use in conjunction with Tasks 2, 3, and 4. You have the option of using your own lesson plan format.

Standards/Performance Indicators/Skills

Identify the state and national standards, performance indicators, and skills addressed by the lesson.

5.GM.3.4 Apply the relationship between millimeters, centimeters, and meters to measure, convert, and compare objects to solve problems

Activity 18.9 Crooked Paths

Learning Objectives/Goals

Describe the lesson's objectives and the learning outcomes that are appropriate for meeting curricular/classroom needs.

Students will convert millimeters, centimeters, and inches.

Students will be able to measure lines using various standards of measurement.

Suggested learning goal: Students will demonstrate measuring lines using various standards of measurement.

Assessment (the type[s] of assessment used throughout the lesson)

Identify the assessment that occurred before, during, and after the lesson.

Pre-test on Google Forms

Informal formative assessment

https://docs.google.com/drawings/d/1DHjmlzDXcZ-iE4997UTfGsceiiccRP1DgCUGQc2_9S00/edit?usp=sharing

Observation Checklist

Post-test Google forms

Pretest question suggestion:

1. What is a standard unit measurement?
2. What tool do you use to measure?
3. What is the formula for converting inches to centimeters?
4. What is the formula for converting inches to millimeters?
5. Convert 2 inches into centimeters.
6. Convert 2 inches into millimeters.
7. What is the relationship between inches and centimeters?
8. Which of the following are standard units of measurement?
9. Which of the following units of measurement would appropriate to use in London?
10. Which form of measurement do you prefer to use?

Lesson Structure and Procedures

Describe the sequence of events of the lesson elements, including the before, during, and after of the lesson (i.e., the engagement/opening, the procedures used, the activities for guided practice, and the conclusion).

Before (Engage) First, The class will take a pre-assessment. This is to determine prior knowledge before moving forward with the lesson. Next, students will be introduced to the idea of both the standard and the metric system. We will discuss the primary metrics of measurement we will be implementing and demonstrate through guided practice how to convert these.

During (Explain) Each student will be given our learning activity worksheet. We will ask them what types of measuring tools we could use to determine the lengths. At this time we will introduce the measuring app on the iPads. The students will then work together in groups of two and measure the individual lengths of the “paths” and then convert these measurements into each of the required types of measurement. Ex. standard or metric

After (Evaluate) Once the activity is completed we will conduct a group discussion in which we discuss the real-world uses of the measurement tool. In addition, we will discuss the pros and cons of the national use of the standard measurement system we use, and if it would make more sense to transition to the metric system.

Instructional Strategies (Teaching Strategy – what teachers do)

Describe the teacher's approach to achieving the learning objectives and meeting the student's needs.

The teacher will explain the learning activity of unit conversions by using explicit teaching. Once explained, the students will work through their graphic organizers measuring the lines and converting them from inches to centimeters. The teacher will observe the student's progress by using a checklist to measure knowledge.

Learning Activities

Describe the opportunities provided for the students to develop the skills of the objective.

Students will implement the conversion process for centimeters, millimeters, and inches by using the measurement tool on their iPads. For each individual line, they will measure the length and convert this distance for all three examples.

Resources and Materials

List the materials used to plan and deliver the lesson.

Conversion Chart:

iPad

<https://www.math-salamanders.com/image-files/metric-to-standard-conversion-chart-le ngth.gif>

Rubric for assignment

<http://rubistar.4teachers.org/index.php?ts=1668102060>

Category Score of 3 Score of 2 Score of 1 Mathematical

reasoning	Uses complex and refined mathematical reasoning.	Uses effective mathematical reasoning.	Some evidence of mathematical
Strategies/procedures	Typically, uses an efficient and effective strategy to	Typically, uses an effective strategy to solve the	Sometimes uses an effective strategy to solve

	solve the problem(s).	problem(s). problems, but does not do it consistently.
Accuracy 95% or more of the	94-85% of the	Less than 85% of
assigned	assigned	the assigned
structures are	structures are	structures are
measured	measured	measured
accurately and are	accurately and are	
recognizable.	recognizable.	

Technology

Describe the instructional and/or assistive technology that was incorporated into the lesson to enhance instruction and student learning.

Apple Measure app

Differentiation/Accommodations/Modifications/Increases in Rigor

Describe the modifications made to meet the needs of all learners and to accommodate differences in students' learning, culture, language, etc.

Students who need differentiation on the low end will only convert inches to centimeters.

Students who are on level will complete the lesson as planned.

Students on the high level will be encouraged to observe the other forms of the metric system and determine the relationship between the measurements.

Focus Student #1: Watch a video <https://www.youtube.com/watch?v=2wUsdsae0ro> or [How to Convert Inches and Centimeters - YouTube](#) over measurements and/or play an educational game online, <https://www.abcya.com/games/measuring>

Focus Student #2: Watch this video [CONVERSIÓN DE PULGADAS A CENTÍMETROS Super facil - Para principiantes - YouTube](#) over measurement and conversion as well as play this educational game <https://www.abcya.com/games/measuring>.

Classroom Management

Identify the strategies used that are consistent with the learning objectives of the lesson and that also met student behavior needs to help keep the students on task and actively engaged.

Extensions

Describe the activities for early finishers that extended the students' understanding of and thinking about the learning objectives/goals by having them apply their new knowledge in a different way.

Students who finish early will take their time to discuss with their partners the scenarios where they have observed metric measurements in their hometown. These students will be encouraged to share with the class.

Follow-Up Activity to the Lesson

Describe a quick activity for review or for building on the lesson that will deepen student understanding and interconnect concepts. (The activity may be incorporated in class the next day or throughout the unit.)

Additional Information

Identify any area or lesson component that was not covered by this lesson plan format but that you feel is vital to include in a description of the lesson.

