

Instructional materials (text; kit) TP Rolls, Metric Rulers, Scissors, Graph Paper

Grade Level 7th

Lesson: Inquiry into surface area model for cylinders.

Big Idea: Geometry. Washington Standard 7.3.A: Determine the surface area and volume of cylinders using the appropriate formulas and explain why the formulas work.	
Learning Target: I could figure out the surface area of a cylinder even if I forgot the formula.	Common Misconceptions: <ul style="list-style-type: none"> • Forgetting the top and bottom areas • Failing to identify the use of circumference in the formula.
Success Criteria: I'm able to... <ul style="list-style-type: none"> • Construct a net for a cylinder. • Transfer dimensions from the cylinder to my net. • Understand what surface area is. 	Vocabulary: <ul style="list-style-type: none"> • Surface area • Circumference • Radius • Diameter • Net • Lateral area • Base
Elicitation Activity*: Working in small groups, students will try to figure out the surface area of TP tube cylinders.	Talk structures/Discourse techniques: 2) The instructor will ask students to think about why this learning target might be important. Share-Restate-Add On. 4) Students will be given individual time to think of their plan, then time to share it with their small groups. The groups will share out their ideas. 6) Teacher will select groups to share out problems, plans, or results while monitoring class during Step 5. 7) 30 sec/15 sec: In pairs, students will share how they felt about the learning target and what they learned while the other student listens to restate.
Topic introduction/lesson Activities: <ol style="list-style-type: none"> 1) Students come into room and work on entry task involving areas and circumferences of circles, with a brief discussion afterwards (10 MIN) 2) Learning Target discussion (3 MIN) 3) Assignment and materials are distributed while activity is explain (4 MIN) 4) Students have planning discussion, share out ideas (10 MIN) 5) Students work in small groups to determine surface area of cylinder as described in handout. (10 MIN) 6) Student groups share out plans, problems, and results. (8 MIN) 7) LT debrief. How did we do? How are you feeling? (5 MIN) 8) Extension if there is time 9) Exit Task (5 MIN) 	

<p>Embedded Formative Assessment/s: Students will be assess informally when they discuss their plans for how they are going to tackle the problem. The teacher will also monitor the group work for evidence of understanding. The learning target debrief will serve as another indicator of the overall group's understanding. Finally, the exit task will assess individual understanding.</p>	
<p>Adjustment Trigger <i>What level of student performance will necessitate an instructional adjustment?</i></p>	
<p>Instructional Adjustment (if needed):</p>	
<p>Lesson Closure*:</p>	

* Opportunity for formative assessment