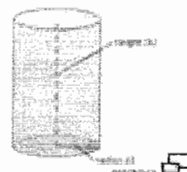


## Volume of Cylinders

---

### Big Picture:

Cylinder, three-dimensional surface or solid object bounded by a curved surface and two parallel circles of equal size at the ends. The curved surface is formed by all the line segments joining corresponding points of the two parallel circles.



### cylinder

The equation for determining the volume (V) of a cylinder is

$$V = \pi r^2 h.$$

**Objective:** The learner will be able to find the volume of a cylinder.

### Language Objective:

- ✓ The student will read a word problem contain a cylinder.
- ✓ The student will fill out the concept map KWC.
- ✓ The student will actively listen to peers.
- ✓ The student will speak aloud giving feedback.

### Standards: Standard 4: Concepts and Principles of Geometry

- ✓ 8.M.1.4.1: Apply concepts of size, shapes and spatial relationship
- ✓ 8.M.4.1.1: Describe and classify relationships among types of one-, two-, and three- dimensional geometric figures, using their defining properties.

### Lesson Sequence:

- 1) Read word problems, selecting one.
- 2) Introduce new concept map and it's relation to the KWL chart.
- 3) Guided practice #2
- 4) Assign problem #10.
- 5) Share KWC charts.
- 6) Give feedback.

### Assessment:

- ✓ Read final chart
- ✓ Elaborate on understanding, how did this help?



# LIMSST Project Literacy Lesson Reflection Form

Date of Lesson: 4/30/08

**Lesson Title/Topic Areas:** Graphic Organizer, KWC (Knowledge, Want, Conditions)

## Literacy Strategies Used:

(Please discuss what literacy strategies you embedded in this lesson. What were your goals in using these strategies?)

In this lesson I added a new graphic organizer KWC. I wanted a new approach in students' engagement in understanding word problems. This graphic organizer had the conditions column, which offered consideration for formulas and spatial relationships. I also appreciated the solution space, which summarized the organizer into a solution.

## Student Response to the Lesson:

(Was the strategy effective? Were students able to read/write as needed in this lesson? What attitudes were displayed? How did specific Students and/or the class do? How did the literacy strategy aid in developing student understanding of the topic? Cite specific evidence from the samples of student work)

This is a great tool and I will continue using with all my grade levels. The students proved that the organizer is a valuable tool that assisted them with desegregation of information in a word problem. The uniform completion of the charts showed that low and high students were capable.

This strategy aided in the retrieval of important information from the word problem. Breaking a word problem down to students' understanding served very valuable. If you notice that students were able to fill out the chart using their own words. The solutions, diagrams and formulas were consistent.

## Lesson Reflection:

(What worked well with this lesson? What challenges did you encounter in this lesson? Would you change certain aspects of the lesson or the questions that you asked? How does this influence future lesson planning?)

Overall this lesson worked very well. I envision that the students will be able to transfer this concept map to memory, assisting them with word problem, and the DMA problems. The challenge was weaning them off the KWL chart which is similar, but this KWC required more thought about rules, formulas, and condition that they needed to be aware of.

This gives me an additional tool to use with word problems.

## Relationship to Previous Instruction:

(Have you taught this lesson/topic prior to the LIMSST project? If so, how did your teaching of this lesson differ from what you taught before? How did students' reactions to this lesson differ?)

I have taught the KWL graphic organizer before. This KWC graphic organizer is more suited for word problems.

The students seem to understand better the information and have conditions affect the solution i.e. that radius is half the diameter. I believe that the students' comprehension was promoted and demonstrated.