

Got Math?

Southern Nevada
Regional Professional
Development Program

VOLUME 1, ISSUE 5
FEBRUARY 2009

A Newsletter from the Secondary Mathematics Team

LONG TERM MEMORY REVIEW

Mathematics concepts and skills can soon be forgotten, even to the extent that students claim they were never taught the skills. There may be students entering middle school and high school with deficiencies in basic skills. To assist in this area, two daily reviews should be employed. These reviews should be brief but consistent.

The review at the beginning of the class is usually called *Daily Review*. It should cover recently learned material and may be used as an introduction to the lesson. This review helps place material into short-term memory and links previous learning to the new concepts that will be taught.

The review at the end of the period should address basic skills, important formulas, facts, algorithms, definitions, strategies, and deficiencies. This review is called *Long Term Memory Review* because it is designed to place into long-term memory those items that all students should know at the completion of the school year. These reviews are important because they require students to revisit information from memory or notes. Keep this review brief.

Teachers can encourage students to develop memory skills by teaching highly structured and carefully sequenced lessons using frequent reinforcement and review. These memory skills are required for all kinds of cognitive activity, including comprehending analogies, understanding metaphors, and engaging in problem solving. Teaching students to recognize that they already use memory skills and transferring these existing skills to school assignments and assessments will aid them in their efforts to learn.

While there is more to learning than just memorization, memorization is an

important component of learning mathematics. Knowing “how” we remember is important if we are going to help students. Teachers should teach their students to review using different strategies such as mnemonics, linking, developing relationships, learning in context, and utilizing audio and visual cues.

“... review and maintain mastery of basic facts and algorithms from past course work.”

Some of the benefits of *Long Term Memory Review* are: 1) to provide opportunities to refresh long-term memory, 2) to maintain skills, address deficiencies, and stress important ideas of the year, 3) to review those concepts and skills that all students should know at the end of the year, and 4) to review and maintain mastery of basic facts and algorithms from past course work.

The High School LTMR’s that are posted on www.rpdp.net have a new look. They provide four days of short reviews and then a quiz. Days one through four are reviews and day five is a quiz over the material from the previous four days. Each LTMR builds on the previous review for repetition and spiral learning.

RPDP personnel suggest that instructional time include focus on cognitive strategies for learning and memorizing information that students should know. An important part of a teacher’s work should be devoted to teaching the strategies that facilitate learning.

Sample screens from www.rpdp.net

Geometry: Similarity, Ratio and Proportion
Long-Term Memory Review
Day 1 – Review

- Provide a complete response to each of the following:
 - A ratio compares two _____.
 - A proportion sets two ratios _____ to each other.
 - What are similar figures?
 - Draw two similar figures.
- Use Figure One: The triangles in the figure above are similar.
 - _____ and _____ are one pair of corresponding sides.

Geometry: Similarity, Ratio and Proportion
Long-Term Memory Review
Day 5 – Quiz

- Provide a complete response to each of the following:
 - A ratio compares two _____.
 - A proportion sets two ratios _____ to each other.
 - What are similar figures?
 - Draw two similar triangles and two similar quadrilaterals.
- USE Figure One: The rectangles at the right are similar.
 - _____ and _____ are measures of corresponding sides



Math Resources

www.rpdp.net

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