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## Student Success \ Math & Physics and Biology

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# Biology Learning: Experts vs. Novices

### VOCABULARY SKILLS

#### Knowledge of Greek & Latin roots of words:

- Greatly reduce study time required for understanding terminology.

#### Mnemonic techniques:

- These can help in recall of terms and terminology.

### CONCEPTUAL UNDERSTANDING

#### Experts:

- Work to understand concepts – helps in learning of terminology and definitions.
- Work to see the bigger picture (literally): especially in diagrams or illustrations.

#### Novices:

- Try to memorize without seeing the big picture.

### REVIEW STRATEGIES FOR TEST- PREPARATION

#### Experts:

- Engage in routine (timed) short quizzes to test their understanding and recall.
- Use flash cards.
- Draw mind maps or diagrams.
- Focus on identifying weak points of their knowledge and work on strengthening them.