

## Components of an Effective Secondary Science Lesson

Before presenting a lesson, refer to the assessment blueprint on the unit. Gray areas can take place at various points during a lesson.

### Introduction

- Set the stage for today's lesson (brief overview of day's class, activity leading into lesson concepts, etc..)

### Daily Reviews

- Provide review for short-term memory over recently taught material
- When correcting homework: provide immediate and meaningful feedback and hold students accountable
- Keep reviews and homework checks brief

### Daily Objective

- State and write before introducing the day's main lesson and have students record this in their notebook

### Concept and Skill Development and Application

- Provide the "why" for rules and algorithms, theories, and laws.
- Present a variety of techniques: students need to see it, hear it, say it, and do it as well as take notes

### Guided / Independent/ Group Practice

- Can be done at different times throughout the lesson to help students process information
- Students need time to think, analyze, work on problems, discuss their solutions and become problem solvers instead of watching the teacher do all the work
- Can be done as an entire lesson that enhances conceptual understanding and/or application of concepts through inquiry, investigation, discovery, lab or problem-solving activities

### When assigning homework

- Assignments should consist of what teachers value and include a variety of assessment items, including definitions, computations, explanations, applications, etc. (see the assessment blueprint for the unit)

### Closure

- Have students explain what they have learned and apply it

### Long-Term Memory Review

- Maintain skills, address deficiencies, and stress important ideas of the year

## Secondary Science Teacher Expectancies

### A Good Faith Effort to Teach the Curriculum

#### Lessons

- are based upon course syllabi,
- are aligned with course benchmarks, and
- use an adopted text/program.

### A Balanced Delivery of Instruction

#### Lessons incorporate instruction in

- concept development and linkage,
- problem solving,
- notation and vocabulary,
- basic facts and procedures, and
- appropriate use of technology.

### Instructional strategies to facilitate student learning

#### Lessons include

- the *Components of an Effective Lesson*,
- reading and writing (not the same as note-taking),
- visual, auditory, and tactile presentation techniques,
- oral recitation, oral drill, and memory aids,
- over-teach and over-learn (provide concentration time and teach students how to study);
- effective questioning, and
- note-taking.

### Other considerations that impact student achievement

- Instructional time is used effectively by working bell-to-bell.
- Assessment is based on the *Backward Assessment Model*.
- Professional communication takes place between and within grade levels/courses.
- The "My Kid" standard: Is this how I would want *my kid* to be taught?
- Positive student/teacher relationships.
- Build success upon success.

