TUCSON UNIFIED SCHOOL DISTRICT

Winter, 2005

Lesson Planning Issue

t-mail

Career and Technical Education Excellence

Inside this issue:

Tsunami Victims Walk-a-thon Pueblo High Magnet School . . .

Career and Technical Education teachers Maria Bicknell and Steven Reff hosted a Tsunami Victims Walk-a-thon at Pueblo High School on Saturday, January 22, from 7 a.m. - 2 p.m. The Interact & Octagon Clubs (high school Rotary and Optimist clubs) along with the Future Business Leaders of America and Cooperative Business Experience members played an integral part in the planning and facilitating of this event. Approximately 100 participants walked the two miles around the track to raise $1000 for the Tsunami victims.

Career and Technical Education Advisory Councils in TUSD . . .

The primary purpose of advisory councils is to help TUSD high schools improve the quality of instruction in Career and Technical Education programs. Membership is voluntary and includes business and community members as well as high school teachers and administrators. The roles of the Advisory Councils are to advise, assist, support and advocate for Career and Technical Education. Career and Technical Education in TUSD has nine Advisory Councils facilitated by CTE teachers. Check the CTE website for information about membership.

Career and Technical Education Advisory Councils

- Allied Health Services, Beth Francis, Catalina High Magnet School
- Business Systems, Claudette Welch, Sahuaro High School
- Digital Arts / Media / Communications, Jerry Halfmann, Tucson High Magnet School
- Construction and Design, Chuck Gallagher, Santa Rita High School
- Education and Training, Karen Schneider, Rincon High School
- Human Services, Mary Perry, Rincon High School
- Information Technology, Nathan Raper, Cholla High Magnet School
- Manufacturing, Ray Wiggins, Tucson High Magnet School
- Transportation, Bill Yandell, Rincon High School

Career and Technical Education Week
February 13-19, 2005

From the Assistant Director

As technology continues to evolve and change the workplace, our students will need the ability to acquire new knowledge and analyze and apply existing knowledge to new situations. CTE students can acquire these skills through high-quality, challenging lessons based on relevant real-world problems in an environment that integrates the academic and technical realms. CTE lessons can provide students with real-world applications of the skills and knowledge taught in the academic curriculum. Use lesson planning as an opportunity to create multiple pathways to rigor and relevance based upon students' interests, learning styles, aptitudes and needs. . . . *Kathy Prather*

"Teaching is only as good as the learning that takes place."

International Center for Leadership in Education

Planning Lessons with Rigor and Relevance

The International Center for Leadership in Education has developed a framework to help teachers plan for rigor and relevance in their lessons by selecting appropriate instructional strategies to meet learner needs and higher achievement goals. Teachers should plan lessons that progress from A—acquisition to D—adaptation.

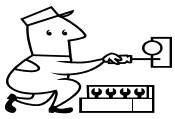
KNOWLEDGE		
	Evaluation	6
	Synthesis	5
	Analysis	4
	Application	3
	Comprehension	2
	Knowledge	1

C Assimilation—students extend and refine acquired knowledge to analyze and solve problems and create unique solutions.	**D Adaptation**—students think in complex ways and apply acquired knowledge and skills.
A Acquisition—students gather, remember and understand acquired knowledge and information.	**B Application**—students use acquired knowledge to solve problems, design solutions and complete work.

1	2	3	4	5
Knowledge in one discipline	Apply in discipline	Apply across disciplines	Apply to real-world predictable situations	Apply to real-world unpredictable situations

APPLICATION MODEL

Student Work for Real World Instruction—advertisement, audiotape, brochure, chart, community service, construction, contract, correspondence, debate, demonstration, design, diagram, discussion, display, dramatization, drawing, editorial, exhibit, experiment, graph, interview, invention, journal, letter, log machine, magazine, manufacturing process, map, model, mural, news report, newspaper, oral report, painting, petition, photo album, play, poster, production process, proposal, questionnaire, rap, research report, resume, script, sculpture, sketch, slide show, software application, song, speech, story, survey, videotape.



All Career and Technical Education programs have a work-based learning component.

Instructional Strategies for Rigor and Relevance

These strategies can be used to develop rigorous and relevant lessons that will motivate students to achieve at higher levels. Match the instructional strategy to the expected level of student performance. Following each strategy is the quadrant in the framework in which it is best suited.

- Brainstorming C
- Cooperative Learning B
- Demonstrations B
- Guided Practice A
- Inquiry C/D
- Instructional Technology B/C/D
- Lecture A
- Memorization A
- Note-taking/graphic organizers A/B/C/D
- Presentations/exhibitions D
- Problem-based Learning B/D
- Project Design B/D
- Research C/D
- Simulation/role-playing B/D
- Socratic Seminar C/D
- Teacher Questions C/D
- Work-based Learning B/D
- Writing A/B/C/D

"Career and Technical Education teachers have a unique opportunity to teach the essential English language arts, mathematics, and science skills while equipping students with the knowledge and skills needed for success in the workplace.

No other curricular area lends itself more to real-world application than Career and Technical Education."

International Center for Leadership in Education.

Steps in Lesson Planning

Consider these questions to help ensure rigor as you follow the steps in the lesson planning process:

1. *Create Clear Learning Objectives*

What type of lesson might support the content standards and vocational competencies?
How does this lesson address the learning styles and needs of your students?
What review of prerequisite skills and knowledge is necessary?
Will your students be motivated by this lesson?
Will students see the value and relevance of this lesson?

2. *Design the Lesson*

How well is the lesson aligned with content standards and vocational competencies?
How does the lesson encourage students to take responsibility for their own learning?
How will your students use their knowledge to solve authentic problems related to an identified real-world problem or issue?
How do instructional strategies promote higher level thinking?
How does the lesson provide ways for students to demonstrate their learning?

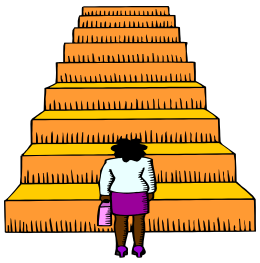
3. *Implement the Lesson*

How do resources used accommodate different strategies for different learners?
Are resources accessible for students with physical or learning disabilities?
Do they work?
Do they fit into the time frame, both for development and within class schedule?
How do they add value to the lesson?
How does the method of instruction in the lesson support content to be covered and teaching style?
How is the learning environment enriched with information, guidance and support?
How did the lesson support students in pursuing goals that they feel are relevant?

4. *Evaluate the Lesson*

Did all students learn something related to the content standards/vocational competencies?
How do you know?
Did new learning goals emerge during instruction?
Can students' learning process be evaluated as well as the products they created?
What instructional strategies were the most effective?
How can the lesson be more effective?
What changes can be made to the lesson next time it is used?

. . . RMC Resource Corporation

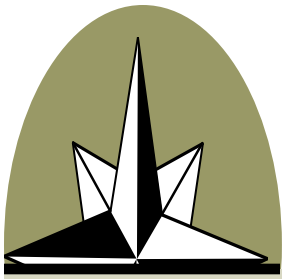


Designing the Lesson

Follow these steps in designing a lesson (the second step in lesson planning).

- Determine the curriculum: what will the students be able to do upon completing the activities or work of the lesson.
- Determine what the students already know before beginning the lesson.
- Determine at least one way to assist the students in learning the new curriculum.
- Determine at least one way to evaluate the learning outcomes of the students.

. . . Dr. Sandra Kizlik



Bloom's Taxonomy
Use these verbs when writing objectives. . .

Knowledge—list, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, find, group, match, name

Comprehension—summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, calculate, define, extend

Application—apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover

Analysis—analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, include, inspect, infer

Synthesis—combine, integrate, modify, rearrange, substitute, plan, create, design, invent, compose, formulate, prepare, generalize, rewrite

Evaluation—assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, summarize

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Sheltered Instruction (SIOP) Lesson Plan

Preparation—Write content and language objectives, choose content concepts and materials appropriate for age and educational background, then adapt content and plan for meaningful activities.

Building Background—Link concepts to students' background and experiences, link past learning and new concepts, emphasize vocabulary.

Comprehensible Input—Use appropriate speech for students' proficiency level, explain tasks clearly, use a variety of techniques.

Strategies—Use scaffolding techniques and a variety of question types.

Interaction—Provide opportunities for interaction, use group configurations.

Practice/Application—Provide hand-on materials and activities that provide application and integration of content and language skills.

Lesson Delivery—Engage students, pace lesson appropriately.

Review/Assessment—Review key vocabulary, concepts, provide feedback, conduct assessments.

Research indicates that up to 70% of what a student learns is dependent on his/her possessing the appropriate prerequisites.

There are numerous formats available for writing daily lesson plans. Formats that are most useful are **simple to follow and well structured**. Check the Intranet under Teacher Resources for TUSD's lesson plan format.

Lesson Plan Formats

Lesson Plan Format (Dr. Bob Kizlik)

1. **Content**—predetermined by curriculum (includes skill and/or concept).
2. **Prerequisites**—what the student must already know or be able to do in order to be successful with this lesson.
3. **Instructional Objective**—what is to be learned by an individual student. Use one verb per objective.
4. **Instructional Procedures**—what teacher will do in teaching the lesson including introduction, instructional techniques and closure. (Include what students will do.)
5. **Materials and Equipment**—used by teacher and students.
6. **Assessment/Evaluation**—determine extent to which students have attained the instructional objective.
7. **Follow-up Activities**—how other activities/materials will be used to reinforce and extend this lesson (homework, assignments, and projects).
8. **Self-assessment**—strengths and areas for improvement. (Analyze the difference between the objective and results of the assessment.)

The Madeline Hunter Lesson Design Model

1. **Anticipatory Set** (focus)—a short activity or prompt that focuses the students' attention before the actual lesson begins.
2. **Purpose** (objective)—a statement about what the students will be able to do and how they will show learning.
3. **Instructional Input**—vocabulary, skills and concepts the teacher will impart to students.
4. **Modeling**—the teacher shows what the finished product looks like.
5. **Guided Practice**—the teacher leads the students through the steps necessary to perform the skill using the trimodal approach—hear/see/do.
6. **Check for Understanding**—the teacher uses a variety of questioning strategies to determine understanding and to pace the lesson.
7. **Independent Practice**—the teacher releases students to practice on their own.
8. **Closure**—a review or wrap-up of the lesson.