

## **Occupational Versatility:**

# **KEY to careers**

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**J**EFF RAYMOND, an eighth grade student, enters the industrial arts shop at Chinook Junior High School in the Highline District. Jeff takes red notebook #12 from the bookcase. The notebooks are color-coded by period, with the color "red" signifying first period, and "12" being Jeff's student number. Today is the second day of the fall term, and of Jeff's first full year in shop after a nine-week session as a seventh grader.

In his notebook are the record sheets which Jeff will maintain during the term. Jeff knows he is responsible for selecting the area in which he wishes to work and for electing or designing the project he wishes to make. Jeff also knows he is to manage all his activities in the shop. These management responsibilities include his attendance record, his material purchases record, his planning records, his power equipment usage record, and his performance record.

The shop is a large single room with a team of three teachers available to the students. Eleven activity areas are available for Jeff to explore: woods, plastics, general industries, graphics, electricity/electronics, drafting, power, foundry, welding, cold metals, and career guidance. Notebook in hand, he wanders about looking at the brightly colored tool panels and the many

project ideas displayed throughout the shop.

A 16-gauge sheet metal candlestick holder catches his eye. "My mother would like one of those, but I think she would like it a little taller," Jeff tells a girl looking at the same project. "I think I'll redesign it and make her one."

On his plan sheet, Jeff draws a sketch of the holder 12 inches high instead of the 10-inch height indicated on the shop plan. He then determines the procedural steps which he will follow, and he also calculates the total price of his project from the metals price list. Jeff asks Mr. Fowler to check his planning and then selects the material he is going to use.

After cutting and rolling the three pieces of metal to the desired shape, Jeff checks his plan. The next step is to cut an oval-shaped hole in each piece, which will require the use of an oxyacetylene torch. After using self-instructional materials for learning how to use the shears and forming rolls, Jeff knows he also must prepare himself to use the torch. He goes to the book on torch operation and reads the safety rules and operating pro-

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cedures. He looks at the loop films on how to light the torch and on how to cut metal with it. From the chart posted by the torch, he determines the pressures required. A ninth grader using the torch gives him some helpful advice. When Jeff believes he is ready, he fills in his power equipment record, indicating where he received his instructions, and asks Mr. Boe to check him out on the torch.

After his demonstration has been approved, Jeff then uses the torch to cut the three oval holes. When he is ready to weld his project, he goes through a similar self-instructional process.

Upon completion of his project, Jeff fills in the blanks on his performance record indicating the processes he used and the machines he operated. Jeff also completes a satisfaction index form on which he expresses how he felt about the work he did. Jeff knows that he is not working for a grade, but for the experience and the pride of accomplishment. The students in the program work independently or team together, without peer competition. The experience



*Each student should learn to identify goals and to evaluate his own progress.*

itself is the reward, and satisfaction comes from a job well done.

## **Choice of a Career**

Looking back on his experience, Jeff thinks that he rather liked operating the oxyacetylene torch. It was hot and smoky, but he felt like an artist flowing the metal together with the flame. The burning was interesting too, but it surely took a steady hand. "What type of education is needed to be a welder," Jeff wonders, "and what kind of life does a welder live?"

Jeff looks at the two large boards in the career guidance area of the shop and he finds that the career of welding is colored green. The color-coding instructions tell him that "green" means post-high school training in the form of apprenticeship or technical school is necessary for this career. The directory also indicates there is a film he can watch on the welding profession, and a taped interview with a welder to which he can listen. After the film and tape are played, Jeff checks the apprenticeship requirements and the available technical programs in the Seattle area. This information, plus the experience of operating a torch, gives Jeff much of the background that he needs to analyze the welding profession.

This type of brief episode in Jeff's exploration of the industrial arts area at Chinook Junior High is repeated many, many times in the shop program. Jeff is learning how to function in the shop environment; he is learning to be responsible for all of his activities and to solve his problems himself. As the director of his own learning, there are many decisions he must make and be accountable for.

Many times, after completing his candlestick holder, Jeff selects the area in which he desires to work, chooses a problem he wishes to solve, develops a plan and a procedure for the solution, teaches himself the processes he needs, manufactures the project, and evaluates the results. Jeff has found his identity in the industrial arts environment and has developed the abilities to be self-sufficient, productive, and adaptable. He



*Through career experiences, pupils become self-sufficient, productive, and adaptable.*

has developed his own mode of operation and has become "Occupationally Versatile." He is ready for advanced or specialized training.

This is true career guidance at the exploratory level. The problems and questions are very real to the student as he initiates them. The solutions come about through student involvement in relevant situations. The degree of thinking often extends to, and sometimes beyond, the analysis level defined in Bloom's taxonomy. The key to such learning is the establishment of an environment where the student will be naturally motivated to learn—and responsible for his learning.

At the awareness and preparatory level, the following considerations must also receive attention. The learning method—where the student is responsible—should be consistent, but the content (what the stu-

dent is involved in) should be different and varied. The awareness level of career development should be integrated into the regular program and not be treated as a special program of study; it should be a natural aspect of all activities.

Goal must replace role at the preparatory level as the major emphasis. Skills, in terms of both quality and quantity, become significant. Each student should be able to identify what his own goals are and should also be able to evaluate how well he is doing in reaching these goals. This self-evaluation is the final aspect of career analysis which the student needs—"How well can I do what I want to do?" A student who has had worthwhile awareness, exploratory, and preparatory career experiences will likely know what he can do—and will do it well. □

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