

Activity: Careers in Computer Engineering
Time: 3¼ hours
Description: A guest speaker is invited to share information about his/her job/career with the students. Students expand on their computer industry knowledge. Students look at degrees and certifications available and opportunities they have at the high school level and beyond to move them toward careers in the computer industry.
Level: II (Grades 9-10)
Topic: 10—students will gain a conceptual understanding of the identification of different careers in computing and their connection with the subjects studied in this course (e.g. information technology specialist, Web page designer, systems analyst, programmer, CIO).

...continued on next page

Prior Knowledge: Word-processing skills

Planning Notes:

- Guest speakers may include the school sysop, board technician, or someone from the local community.
- Collect information from a local university or community college, including school course calendars and college/university catalogues.
- Gather copies of recent computer trade magazines.
- Arrange ahead of time for a student to introduce guest speakers and another student to thank them.
- Collect newspaper advertisements for jobs in the computer industry.
- Distribute a sample certification worksheet

Teaching/Learning Strategies:

- Teachers introduce the expectations of the activity.
- Teachers review with students (ahead of time) questioning techniques for the guest speaker.
- One student may introduce the guest speaker. Students take brief notes in order to ask relevant and interesting questions. One student may thank the guest speaker.
- Discuss the speaker information with the students, after which they write their personal views on the information.
- Students look through trade magazines to see advances in the computer industry. Each student picks one article from a magazine to summarize or review using a word processor.
- Finally, students look at opportunities for different computer designations ranging from MCSE (Microsoft Certified Engineer) to computer engineering at the university level. Students use newspaper advertisements to explore what skills and designations are requested by potential employers.
- Students retrieve the certification chart file (either electronically or via handout) and, using designations discovered in the advertisement exercise above, they complete the chart and add it to their portfolio.
- Students create a plan on how to pursue a computer career, beginning with the completion of this course, and save the information in their portfolio (long-term goal).

Assessment and Evaluation:

- Review of student portfolio to provide written/oral feedback on completion and comprehension of tasks given.
- Evaluate the article review using the rubric provided.

Accommodations:

- Allow flexible timelines for due date of report.
- Use career center videos if available.
- Invite the Student Services resource personnel into the classroom.
- Videotape the guest speaker(s) presentation to allow students an opportunity to watch it again.

Resources: Course Profile: Computer Engineering Technology, Grade 10, Unit 3:
Networking (page 93), Ontario Ministry of Education
(www.acse.net/resources.htm)