QUADRANT
ENGINEERING PLASTIC PRODUCTS
insideBerksBusiness provides educators with the opportunity to learn about local businesses.

After spending four days at an internship site, all of the educators meet on a fifth day to share experiences and learn about the variety of community workplaces.

Educators bring back information to their students so there is a closer tie between education and jobs in the real world.
Hosted by Quadrant Engineering Plastic Products
2120 Fairmont Avenue, Reading PA 19605

Heide Kalbach  Quadrant Human Resources Manager
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Arranged through inside Berks business,
sponsored by
Berks Business Education Coalition
and Berks County Intermediate Unit
QUADRANT IN READING IS THE NORTH AMERICAN HEADQUARTERS FOR A GLOBAL COMPANY WITH A LONG LOCAL HISTORY NOW PART OF MITSUBISHI CHEMICAL

- Scranton, PA
- Delmont, PA
- Fort Wayne, Indiana
- Whitfield, Virginia
- Mexico
- Europe
- Japan
SUMMARY OF EXPERIENCE AT QUADRANT

• I met with 27 people from different areas in the company as well as college and high school interns.

• I observed 3 different methods of production operations as well as maintenance, data analysis, and quality control.

• They even let me sit in on an interview!

• All the people I met with had one thing in common; they appreciated working at Quadrant.
QUADRANT MANUFACTURES
SPECIALTY PLASTICS USING THREE PROCESSES

• Compression Molding
  • Made from a powdered mix
  • Heat, pressure and time create the object being molded

• Extrusion
  • Made from resin pellets with additives
  • A screw pushes through a die to create the object

• Cast Molding
  • A liquid made of molomer, catalyst and colors
  • Heated liquids are baked into the correct shape
THESE ARE FORMED INTO RODS, TUBES AND PLATES
WHAT MAKES QUADRANT WORLD LEADERS IN ENGINEERING PLASTICS?

• Quadrant works with product manufacturers to solve the needs of each company by engineering specially designed materials.

• Each material created at Quadrant has various applications and different properties depending on the process and materials used.
WHERE ARE QUADRANT ENGINEERED MATERIALS USED?

- Aerospace & Defense
- Alternative Energy
- Automotive
- Building & Construction
- Chemical Processing - Oil & Gas
- Food & Beverage
- Medical & Life Science
- Semiconductor & Electronics
- Recreational Vehicles
  Bodywork Construction
EXAMPLE OF QUADRANT INFORMATION

NEXGEN SOCKET MATERIALS

QUALITY. CONSISTENCY. PURITY.

Plastic & Polymer Solutions for the semiconductor industry.
DEPARTMENTS I LEARNED ABOUT AT QUADRANT

• Warehouse
• Maintenance
• Inside Sales
• Marketing
• Health and Safety
• Engineering
• Human Resources
• Information Technology
• Quality Control

• Training and Development
• Controls engineering
• Data analysis (Ignition Project)
• Production
  - Casting
  - Extrusion
  - Compression Molding
• Operations
• College Internships
• High school internships
EXAMPLE OF JOB TITLE: PRODUCTION OPERATORS

• They set up and run the machines that make the plastic, check on progress and record data, do quality checks. They need a high school diploma and will train on the job. Working conditions can be hot, loud and shift work and overtime are common.

**Production Operator characteristics:**

• Safety-conscious
• Patient
• Detail-oriented
• Responsible
• Able to keep good records
• Can work well with others

• Production Operators can move up to Lead Operators when an opening becomes available, based on attendance, interview, and performance reviews.
PROGRESSION OF SALARIES FROM ENTRY LEVEL TO EXPERIENCED

• Example: Production Operator

• -$17.65/hr to start
• -$18.45/hr after 3 months
• -$20.86/hr after 1 year
• -$26.17/hr after several years
BENEFITS:

- Tuition assistance
- Q University continuing education
- Overtime
- Team atmosphere
- Travel in some departments
- Advancement through company
HOW IS TECHNOLOGY USED?

- Quadrant uses technology in every aspect of business:
  - Automated in many phases of production
  - Data collection and analysis
  - Quality control
  - Health and safety testing
  - Communication globally
  - Using IT in creative ways for checks and balances
  - Maintain all web presence and social media
WORKPLACE LEADERSHIP ENVIRONMENT

• “Turn this ship around” concept by David Marquet inspires managers and all employees to develop leadership
• All employees have responsibility for their own areas
• Employees tell supervisors what they plan to do and ask for advice
• Supervisors oversee team members’ choices and coordinate team working for individual and group goals
• Leadership meetings regularly
• Teams create own goals for safety, production and innovation, or sales
SAFETY IS A TOP PRIORITY

• Safety is important to everyone at Quadrant.
• They are trained in the “Safe Start” way of living
• People seem to be concerned with being secure at work, trusting co-workers to do the right thing
• Work-life balance is an important part of safety, where habits of safety and well-being are practiced at home and at work to become part of the personal and group culture
• My impression is that male/female cooperation is comfortable, with women in engineering, data analysis and production roles as well as sales
• They look to hire a diverse group of people who are all expected to take responsibility for teams and to get along well together
KAITEKI— is defined as “a sustainable condition which is comfortable for people, society and the Earth, transcending time and generations.” In the Japanese language, KAITEKI stands for ‘comfort’.
SKILLS STUDENTS NEED IN THE WORKPLACE

• Initiative
• Responsibility for own actions and for welfare of others
• Communication skills in person, writing and documentation, E-mail etiquette
• Working well in a team
• Taking advantage of opportunities to learn
GREATEST CHALLENGE: FINDING ENOUGH QUALIFIED EMPLOYEES

• **Solutions:**
  - Internship programs for college students from Bloomsburg, Penn College of Technology, Weidner
  - Providing housing for interns as well
  - Working with RACC
  - Open House hiring fairs
  - High school internship program
  - Finding grants for training
GREATEST ASSET—PEOPLE

THANKS TO QUADRANT, BBEC AND BCIU

I appreciate all of the people who organized this opportunity for me and for all the Berks County educators who participated.

I am especially grateful to all of the Quadrant people who took their time to share so much with me! I will use this experience in many ways.

Regina Barletta
School Counselor
Wyomissing Area Jr-Sr High School
LESSON PLAN #1

Regina Bartlett

Personality and Careers

Guidance class

Grade 7

PA Academic Standards Addressed:
13.2.B.E: Explain the importance of workplace skills and knowledge

Content Academic Standards Addressed:
- Students will be able to identify personal characteristics that reflect their own traits
- Students will understand that different jobs require different personal characteristics
- Given a job title and description, students will be able to discuss why that particular trait is necessary in that job
- Students will learn more about the variety of positions available in one company and how they relate with each other

Activity:
1. The teacher will read each personal characteristic and ask students to define it in whole group discussion.
2. After each characteristic is defined, students will circle that trait on their worksheets if they feel it applies to them.
3. After students are finished with all 6 groups of characteristics, in a group discussion, students will make educated guesses about which job is represented by each group of traits. They will need to explain why they think those traits are needed by employees in those careers.
4. The teacher will respond to each career suggested to explain which traits fit and which does not fit.
5. The teacher will reveal the job and explain about why those traits are necessary while describing the job.
6. Class will repeat steps 3-5 for each job.
7. The teacher will explain how different jobs work together to achieve the goals of the company.
LESSON PLAN #2

Regina Barletta

Peer Mediation Advanced Training

Peer Mediation

Grades 9-12

PA Academic Standards Addressed:
13.3.8: Determine attitudes and work habits that support career advancement and retention

Content Academic Standards Addressed:
- Students will learn the importance of work ethic and leadership in the workplace
- Students will understand the characteristics employers are seeking in someone they are hiring
- Students will evaluate themselves to determine how they fit on a variety of workplace habits
- Students will understand their role as peer mediators and practice techniques of leadership among peers

1. Students who are trained as peer mediators have a yearly refresher training to practice techniques and learn new skills. This unit will be used to help them understand their role as a leader with peers. We will have 72 mediators participating this year.

2. Students will watch the "Turn this Ship Around" YouTube video by David Marquet.

3. I will ask students if they notice similarities in their role as mediators to the submarine shipmates. We will discuss elements of the concept of being a leader among peers.

4. Points to be made include allowing others to innovate and take responsibility for their own areas correlates with disputants in mediation solving their own problems with the mediators as a guide.

5. We will discuss how practicing this skill as a mediator can help them take ownership and be a leader in a workplace. I will use the example of what they are doing at Quadrant as an example to relate the skills they are learning in mediation to career skills.

6. Students will be given scenarios to role play in 4-person groups to practice this technique, including disputants that are both passive so they want the mediator to solve their problems, who don't understand so the mediator has to be a stronger guide to allow them to work on their issues, and those who are emotionally expressive so they need to de-escalate before they can focus on problem-solving.

7. Students will return to the big group and discuss how the role plays went and how they can see this working in a real mediation.

8. We will discuss plans for Wyoming Peer Mediators this year using this model and break up into 8-person groups to have them discuss ways we can improve services for the school year.

9. Whole group student-led discussion making action plan from small group ideas.