

Manufacturing a Drill Drift

Unit Outline

1. Project Team Members: Matt DeGolier, Sam Heyler, and Steve Eisenhauer
2. Title of Course: Machine technology
3. Title of Unit or Project: Manufacturing of a Drill Drift
4. Approximate length of Unit or Project: 2 weeks
5. Brief description of the Unit or Project with an expected final outcome.

Students will work in pairs to manufacture a product for a potential customer.

6. Major Goals of Unit:
 - Students will develop a customer interview profile.
 - Students will interview potential customer and collect data.
 - Students will manufacture part to customer's specifications and time constraints.
 - Students will present finished project to customer for approval.
7. Sequence of balanced and integrated activities for students:

Students will complete the following activities:

Customer interview profile – Using small group discussions students will develop a customer profile interview, which will include at least the following information (number of parts, materials to be used, dimensions, lead time for sample, time frame for completion of order).

Customer interview and data collection – Students will use customer interview profile to collect necessary data for manufacturing of customer's part.

Produce a product – Students will manufacture a drill drift to customer's specifications defined in the interview process.

Product presentation – Students will present and discuss product prototype.

8. Checklist or rubric for each assessment component:

RUBRIC ONE

Customer Profile Checklist

- | | |
|-------------------------|-------|
| 1. Team work | _____ |
| 2. Time on task | _____ |
| 3. Quality of questions | _____ |

Rating Scale will read 1-4

1 unacceptable

2 needs improvement

3 acceptable

4 outstanding

RUBRIC TWO

Personal Interview Skills

- | | | |
|-------------------------|----|-------|
| 1. Customer interaction | 20 | _____ |
| 2. Language skills | 20 | _____ |
| 3. Information gathered | 20 | _____ |
| 4. Final report | 40 | _____ |

RUBRIC THREE

Performance/ Product Checklist

- | | | |
|------------------------------|----|-------|
| 1. Safety procedures | 20 | _____ |
| 2. Layout | 20 | _____ |
| 3. Machine operations | 15 | _____ |
| 4. Hand tool operations | 15 | _____ |
| 5. Inspection tool selection | 15 | _____ |
| 6. Part appearance | 15 | _____ |

RUBRIC FOUR

Final Presentation

- | | | |
|---|----|-------|
| 1. Personal appearance | 25 | _____ |
| 2. Organization of presentation | 25 | _____ |
| 3. Response to customer | 25 | _____ |
| 4. Collection of additional information | 25 | _____ |
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9. Specific Standards addressed in this Unit or Project:

GOAL ONE

<i>Ref.#</i>	<i>Name of Standard</i>	<i>Title of Individual Standard</i>
1.1.11 E, F	PA-RWLS	Reading Independently
1.4.11 D	PA-RWLS	Types of Writing
1.5.11 F	PA-RWLS	Quality of Writing
1.6.11 A, D, E	PA-RWLS	Speaking and Listening
3.2.12 D	PA-ST	Inquiry and Design

GOAL TWO

1.1.11 E, F	PA-RWLS	Reading Independently
1.4.11 D	PA-RWLS	Types of Writing
1.5.11 F	PA-RWLS	Quality of Writing
1.6.11 A, C, D, E	PA-RWLS	Speaking and Listening
2.2.11 E	PA-M	Computation and Estimation
2.3.11 A, C	PA-M	Measurement and Estimation

GOAL THREE

1.4.11 D	PA-RWLS	Types of Writing
2.2.11 A, B, E	PA-M	Computation and Estimation
2.3.11 A, C	PA-M	Measurement and Estimation
3.2.12 D	PA-ST	Inquiry and Design
3.7.12 A	PA-ST	Technological and Devices

GOAL FOUR

1.4.11 D	PA-RWLS	Types of Writing
1.5.11 F	PA-RWLS	Quality of Writing
1.6.11 A, C, D	PA-RWLS	Speaking and listening
2.2.11 A, B, E, F	PA-M	Computation and Estimation