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ABSTRACT

This guide contains materials for a course in mathematical applications used by garment workers at the Apparel Group, Ltd. (ENRO). The course is designed to help employees understand the meaning of mathematical concepts, symbols, and functions; to acquire better mathematical skills, including fractions, percentages, and decimals; to develop problem-solving skills; to understand basic concepts about computers; and to read charts and graphs. The curriculum guide includes course goals, objectives, and lesson activities correlated with skills to be acquired and materials needed. (KC)

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# MATH CURRICULUM FOR THE APPAREL GROUP LTD.(ENRO)

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**E N R O                      M A T H**

**C U R R I C U L U M**

**WORKPLACE EDUCATION PROGRAM**

**COURSE GOALS:**

To enumerate:

- understand the meaning of mathematical concepts, symbols and functions
- acquire better math skills which include fractions, percentages and decimals
- develop problem- solving skills
- understand basic concepts about computers
- read charts and graphs.

## **OBJECTIVES:**

Depending on the kinds of jobs they perform at Enro, employees will be able to use the following math skills as and when they learn them well:

### **OBJECTIVES FOR COURSE GOALS:**

1. Read numbers and alphanumeric codes.
2. Add, subtract, multiply and divide whole numbers.
3. Identify multiples of numbers.
4. Add, subtract, multiply and divide using fractions and decimals.
5. Solve problems using percentages.
6. Practice conversions between fractions and percentages, decimals and percentages and fractions and decimals.
7. Read charts and graphs.
8. Read and solve word problems related to workplace situations and learner generated scenarios using various mathematical operations.
9. Demonstrate basic computer usage to set up Gerber cutter.
10. Start pre-algebra.

**Course Goal:** To enable employees do work effectively using math skills for specific tasks at work, by identifying mathematical concepts, symbols and functions.

| <u>Skill/Objective</u>                              | <u>Lesson Activities</u>   | <u>Materials</u>  |
|---|--|---|
| 1. Read numbers, alphanumeric codes                 | review numbers using ID tags, codes on machines, reading and listening activities; learning place value, digits , odd and even numbers | NP* 1; tags and sheets with numbers from workplace; BCM** pp. 1-3.          |
| 2. Add, subtract, multiply and divide whole numbers | worksheets from different books; flashcard practice especially for multiplication; interactive exercises                               | NP 1 pp.4-99, beans, flashcards, BCM pp.3-11.                               |
| 3. Identify multiples of numbers                    | review of multiplication; to identify multiples using packing in multiples at work   | NP 1 pp.43-66, boxes, supplies from work, Bingo, multiplication flashcards. |

**Course goal:** Acquire better math skills which include fractions, decimals and percentages.

| <u>Skill/Objective</u>   | <u>Lesson Activities</u>   | <u>Materials</u>  |
|--|--|---|
| 4. Add, subtract, multiply and divide using fractions and decimals   | pair/group work using different materials to understand concepts, drills, interactive exercises  | graph paper, colored paper, BCM pp.29-60, NP 2 pp.2-70.   |
| 5. Solve problems using percentages  | pair/group work using various visual aids, drills, interactive exercises concentrating on pay checks, mortgages tax forms, insurance (intro. level only) | graph paper, pay check stubs, tax forms, real estate forms, insurance forms, BCM pp.60-170 NP 2 pp.73-93. |
| 6. Practice conversions between fractions and decimals, percentages and fractions and percentages and decimals | interactive exercises using pair/group work and visual aids; drills  | graph/colored paper, NP 2 pp.73-80, BCM pp.47-59.   |

**Course goal:** Read charts and graphs.

| <u>Skill/Objective</u>    | <u>Lesson Activities</u>  | <u>Materials</u>  |
|---------------------------|---|---|
| 7. Read charts and graphs | interactive exercises using visual aids; familiarity with vocab., drills using comprehension questions on charts/graphs | work-forms, news-paper graphics, pie/line/bar graphs, and various charts/graphs<br>NP 5 pp.1-86 |

**Course goal:** Develop problem solving skills.

| <u>Skill/Objective</u>  | <u>Lesson Activities</u>  | <u>Materials</u>  |
|---|---|---|
| 8. Read and solve word problems related to workplace situations and learner generated scenarios using various mathematical operations | group discussions about workplace related math problems; problem solving; | word problems<br>BCM dealing with all above issues, word problems-student generated and work related, NP 6. |

Course goal: understand basic concepts about computers.

| <u>Skills/objectives</u>                                    | <u>Lesson plans</u>  | <u>Materials</u>   |
|---|--|--------------------|
| 9. Demonstrate basic computer usage to set up Gerber cutter | learn basic keyboard functions to set up Gerber cutter   | computer, printer. |
| 10. Start pre-algebra                                       | practice multiples, exponents, factors, averages, prime and composite numbers, negative numbers. | Pre-Algebra***.    |

**Bibliography:**

- \*NP -"Number Power" (Contemporary Books, Numbers 1,2,5,6.)
- \*\*BCM -"Business and Computer Mathematics" by Lange/Rousos (Irwin)
- \*\*\*Pre-Algebra -"Pre-Algebra" (Scott, Foresman).



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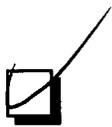


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