

## DOCUMENT RESUME

ED 107 954

95

CE 004 167

AUTHOR Six, Joseph E., Jr.  
TITLE An Analysis of the Billing and Bookkeeping Machine Operator Occupation.  
INSTITUTION Ohio State Dept. of Education, Columbus. Div. of Vocational Education.; Ohio State Univ., Columbus. Trade and Industrial Education Instructional Materials Lab.  
SPONS AGENCY Office of Education (DHEW), Washington, D.C.  
PUB DATE [75]  
NOTE 109p.; For related documents, see CE 004 160-166, CE 004 168-206, CE 004 263-268, and CE 004 425-427  
EDRS PRICE MF-\$0.76 HC-\$5.70 PLUS POSTAGE  
DESCRIPTORS \*Bookkeeping; Business Skills; Communication Skills. \*Job Analysis; Knowledge Level; \*Occupational Information; \*Office Machines; Office Occupations; Safety; Skill Analysis; Skill Development; \*Task Analysis; Task Performance; Work Attitudes

## ABSTRACT

The general purpose of the occupational analysis is to provide workable, basic information dealing with the many and varied duties performed in the billing and bookkeeping machine operating occupation. The analysis was written in general terms due to the diversity in bookkeeping machines on the market, increasing number and variation of the tasks performed by the machines, and the varied program goals of schools teaching bookkeeping machines operation. The document opens with a brief introduction followed by a job description. The bulk of the document is presented in table form. Eight duties are broken down into a number of tasks and for each task a two-page table is presented, showing on the first page: tools, equipment, materials, objects acted upon; performance knowledge (related also to decisions, cues and errors); safety--hazard; and on the second page: science; math--number systems; and communications (performance modes, examples, and skills and concepts). The duties include: preparation, operation, and maintenance of the machines and machine area; preparation and maintenance of documents, files, and records; and operating various related office machines. A list of mental and physical attitudes needed for maximum functioning is appended. (BP)

\*\*\*\*\*  
\* Documents acquired by ERIC include many informal unpublished \*  
\* materials not available from other sources. ERIC makes every effort \*  
\* to obtain the best copy available. nevertheless, items of marginal \*  
\* reproducibility are often encountered and this affects the quality \*  
\* of the microfiche and hardcopy reproductions ERIC makes available \*  
\* via the ERIC Document Reproduction Service (EDRS). EDRS is not \*  
\* responsible for the quality of the original document. Reproductions \*  
\* supplied by EDRS are the best that can be made from the original. \*  
\*\*\*\*\*

## Occupational Analysis

CECC4167

ED107954

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION  
THIS DOCUMENT HAS BEEN REPRO-  
DUCED EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIGIN-  
ATING IT. POINTS OF VIEW OR OPINIONS  
STATED DO NOT NECESSARILY REPRESENT  
OFFICIAL NATIONAL INSTITUTE OF  
EDUCATION POSITION OR POLICY

*BILLING AND BOOKKEEPING  
MACHINE OPERATOR*

**Instructional Materials Laboratory  
Trade and Industrial Education  
The Ohio State University**

5233

AN ANALYSIS OF THE BILLING AND BOOKKEEPING MACHINE OPERATING OCCUPATION

Developed By

Joseph E. Six, Jr.  
Instructor, Accounting-IOE  
South High School  
Columbus, Ohio

Occupational Analysis  
E.P.D.A. Sub Project 73402  
June 1, 1973 to December 30, 1974  
Director: Tom L. Hindes  
Coordinator: William L. Ashley

2  
The Instructional Materials Laboratory  
Trade and Industrial Education  
The Ohio State University

“The activity which is the subject of this report was supported in whole or in part by the U.S. Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.”



## TABLE OF CONTENTS

Foreword. . . . .	v
Preface . . . . .	vii
Acknowledgment. . . . .	ix
Job Description . . . . .	xi
Duties . . . . .	
A Maintaining the Machine in Proper Working Order. . . . .	1
B Preparing Source Documents for Processing/Operations . . . . .	9
C Preparing the Machine Area for Operations. . . . .	17
D Prepare the Machine for Operations . . . . .	27
E Operating the Bookkeeping-Machine . . . . .	41
F Closing the Machine and the Area After Operations . . . . .	79
G Maintaining Files of Bookkeeping Related Records in Correct Order, - with Accurate Balances . . . . .	87
H Operating Various Related Office Machines. . . . .	97
Index. . . . .	107

5

## FOREWORD

The occupational analysis project was conducted by The Instructional Materials Laboratory, Trade and Industrial Education, The Ohio State University in conjunction with the State Department of Education, Division of Vocational Education pursuant to a grant from the U.S. Office of Education.

The Occupational Analysis project was proposed and conducted to train vocational educators in the techniques of making a comprehensive occupational analysis. Instructors were selected from Agriculture, Business, Distributive, Home Economics and Trade and Industrial Education to gain experience in developing analysis documents for sixty-one different occupations. Representatives from Business, Industry, Medicine, and Education were involved with the vocational instructors in conducting the analysis process.

The project was conducted in three phases. Phase one involved the planning and development of the project strategies. The analysis process was based on sound principles of learning and behavior. Phase two was the identification, selection and orientation of all participants. The training and workshop sessions constituted the third phase. Two-week workshops were held during which teams of vocational instructors conducted an analysis of the occupations in which they had employment experience. The instructors were assisted by both occupational consultants and subject matter specialists.

The project resulted in producing one hundred two trained vocational instructors capable of conducting and assisting in a comprehensive analysis of various occupations. Occupational analysis data were generated for sixty-one occupations. The analysis included a statement of the various tasks performed in each occupation. For each task the following items were identified: tools and equipment; procedural knowledge; safety knowledge; concepts and skills of mathematics, science and communication needed for successful performance in the occupation. The analysis data provided a basis for generating instructional materials, course outlines, student performance objectives, criterion measures as well as identifying specific supporting skills and knowledge in the academic subject areas.

## PREFACE

In writing an occupational analysis for the bookkeeping-machine operator, the following variables were considered:

- \*There is much diversity in bookkeeping-machines on the market with machines ranging from a relatively simple, mechanically programmed type to highly sophisticated machines as the Burroughs L 4000-Accounting Computer, the MCR 299 Electronic Accounting System, and the Singer 5800 Visible Record Accounting System. Prices for various machines may range from a modest \$1,000 to \$25,000 (or more) depending on what function the machine is designed to perform; and/or the number of its components or modules.
- \*There has been an increasing number of accounting tasks being performed by the various machines and there is considerable variation in the detail and clarity to which any given machine may perform.
- \*Schools teaching bookkeeping-machine operations have varied program goals. Some may train highly qualified operators able to work in payroll purchasing, sales, sales analysis, aging, and other accounting functions. Other schools may teach that machines do the same work manual systems do, only neater, faster, and more accurately.

In light of the above considerations it became increasingly difficult to write a highly definitive task analysis. It was decided that the analysis would be written in general terms if it was to be written within the time limit and in light of the many variables listed.

Every effort was made to limit all considerations to those tasks closely related to the operation of the bookkeeping-machine. It is sincerely hoped that this analysis will serve as a starting point from which programs unique to different schools and budgets may be developed.

## ACKNOWLEDGMENT

We wish to acknowledge the valuable assistance rendered by the following subject matter specialists. They provided input to the vocational instructors in identifying related skills and concepts of each respective subject matter area and served as training assistants in the analysis process during the two-week workshops.

Rollin M. Barber, Psychology  
The Ohio State University  
Columbus, Ohio

Jodi Beittel, Communications  
Columbus, Ohio

Diana L. Buckeye, Mathematics  
University of Michigan  
Avon Lake, Ohio

Rick Fien, Chemistry  
The Ohio State University  
Beachwood, Ohio

N.S. Gidwani, Chemistry  
Columbus Technical Institute  
Columbus, Ohio

Bruce A. Hull, Biology  
The Ohio State University  
Columbus, Ohio

Donald L. Hyatt, Physics  
Worthington High School  
Worthington, Ohio

Glenn Mann, Communications  
Columbus, Ohio

Jerry McDonald, Physical Sciences  
Columbus Technical Institute  
Reynoldsburg, Ohio

Colleen Osinski, Psychology  
Columbus Technical Institute  
Columbus, Ohio

David Porteous, Communications  
University of Connecticut  
Colchester, Connecticut

James A. Sherlock, Communications  
Columbus Technical Institute  
Columbus, Ohio

Jim VanArsdall, Mathematics  
Worthington High School  
Worthington, Ohio

Lillian Yontz, Biology  
The Ohio State University  
Caldwell, Ohio

Acknowledgment is extended to the following I.M.L. staff members for their role in conducting the workshops; editing, revising, proofing and typing the analyses.

Faith Justice	Research Associate
Sheila Nelson	Administrative Assistant
Marsha Opritza	Editorial Consultant
Rita Buccilla	Typist
Peg Bushelman	Typist
Carol Fausnaugh	Typist
Mindy Fausnaugh	Typist
Rita Hastings	Typist
Carol Hicks	Typist
Sue Holsinger	Typist
Barbara Hughes	Typist
Carol Marvin	Typist
Patti Nye	Typist
Kathy Roediger	Typist
Mary Salay	Typist

## JOB DESCRIPTION

A bookkeeping-machine operator performs the following duties: prepares for processing, various business papers that are generated by a firm; operates various peripheral machines such as adding and calculating machines; cleans the machine and performs minor preventive maintenance functions. The operator also maintains accurate files of business documents and bookkeeping related records such as ledgers, journals, individual earnings record; and furnishes information and/or reports to authorized persons in verbal or written form. The operator assists in the performance of various related clerical and bookkeeping functions in an office.

Duty A Maintaining the Machine in Proper Working Order

- 1 Read section (s) of machine's manual related to maintaining the machine
- 2 Maintain proper machine environment (humidity, temperature, power source)
- 3 Perform preventive maintenance

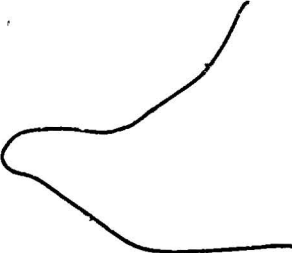
//

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Machine's manual Firm's policies	Read section (s) of machine's manual related to maintaining the machine Follow all directions consistent with firm's policies on machine maintenance Monitor service agreement/contract	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>  Damage to machine and/or modular components Loss of service agreement/contract Loss of employment

12



## TASK STATEMENT) READ SECTION(S) OF MACHINE'S MANUAL RELATED TO MAINTAINING THE MACHINE

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading  Speaking  	Machine's manual  Asking questions about task	Comprehension, detail/inference, elaboration, terminology Technology/general vocabulary, appropriate diction, enunciation, clarity of expression, logic, usage	

## (TASK STATEMENT) MAINTAIN PROPER MACHINE ENVIRONMENT (HUMIDITY, TEMPERATURE, POWER SOURCE)

14

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
<p>Auxiliary power source may be necessary from some machines</p> <p>Hygrometer may be necessary</p> <p>Thermometer may be necessary</p> <p>Alarms <b>connected</b> to the hygrometer, thermometer and power sources may be necessary</p>	<p>Read section(s) of machine's manual related to the environment necessary for the machine's safety and its proper functioning</p> <p>Monitor humidity and temperature factors, and availability of auxiliary powers, in the machine's environment, if appropriate; report variance</p> <p>Adjust environment in accord with predetermined policies, if appropriate</p> <p>Unplug machine after turning it off, if required</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Determine if environment is satisfactory for maintaining the machine's safety and proper functioning</p> <p>Determine if auxiliary power and/or environmental assistance is functioning properly</p> <p>Determine if variances should be reported</p>	<p>Machine's environment will vary from normal; and alarm equipped environment controls will sound alarm(s)</p>	<p>Loss of revenue</p> <p>Damage to machine and "down time"</p> <p>Loss of machine</p> <p>Loss of valuable records</p>

14

ASK STATEMENT) MAINTAIN PROPER MACHINE ENVIRONMENT (HUMIDITY, TEMPERATURE, POWER SOURCE)

SCIENCE		MATH – NUMBER SYSTEMS	
Temperature and humidity critical to machines effectiveness A constant power source may be necessary for the continuous efficient operation of some machines Behavioral science (see index)		Coding - must understand how to recognize unacceptable reading on charts and/or gauges related to maintaining proper machine environment: hygrometer, thermometer and availability of auxiliary power	
COMMUNICATIONS			
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS	
Viewing	Interpreting gauges related to environmental factors	Visual analysis, memory, describing, logic, detail/inference, color discrimination, recognition of symbols codes and emblems	
Speaking	Reporting environmental problem	Terminology/general vocabulary, appropriate diction, implying, enunciation, clarity of expression, logic, usage	
Reading	Machine's manual	Comprehension, detail/inference, description of mechanism, definition, terminology	
Listening	Emerging instruction	Auditory discrimination, discrimination facts from non-facts, concentration, logic, work definition, noise discrimination	

## (TASK STATEMENT) PERFORM PREVENTIVE MAINTENANCE

16

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
<p>Tools (all must be nonmagnetizeable, if available) Set of screwdrivers, rubber handled Set of small wrenches - metric may be necessary Small tray to hold small tools and or parts Proper oil Material Ribbon</p>	<p>Read section(s) in machine's manual related to preventive maintenance. Follow directions- Understand firm's policies related to handling preventive maintenance. Follow directions Understand manufacturer's service agreement/contract Turn machine off Unplug the machine Perform examination and preventive maintenance on the machine Report usual and necessary findings to proper person Clean the machine according to directions Change the ribbon, if appropriate Cover and/or protect the machine when not in use</p>	<p>Turn the machine off Unplug the machine. Be sure area is dry Use proper tools for purposes they are designed  Results of unsafe performance: injury and electrical shock</p>
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Determine if machine is scheduled for preventive maintenance and/or may need it Determine if machine should be turned off and/or disconnected from power source</p>	<p>Schedule time arrives for preventive maintenance Suspect that a potential problem exists</p>	<p>Machine "down time" may result Loss of machine</p>

## TASK STATEMENT) PERFORM PREVENTI'VE MAINTENANCE

SCIENCE		MATH - NUMBER SYSTEMS	
Behavioral Science (see index)		Positive rational numbers Property of comparison ( =, <, > ) Linear (screw and nut size)	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Speaking	Asking question about task	Terminology/general vocabulary, appropriate diction, enunciation, clarity of expression, logic, usage Comprehension, detail/inference, definition, terminology Penmanship, spelling, memo format, clarity of expression, usage, reports-progress	
Reading	Machine's manual on task		
Writing	Report on having done task		

Duty B Preparing Source Documents for Processing/Operations

- 1 Gather and sort source documents by types
- 2 Inspect source documents for completeness and/or validity
- 3 Add source documents by type and compare totals with such other totals,  
where possible to insure accuracy and/or balancing

18

## (TASK STATEMENT) GATHER AND SORT SOURCE DOCUMENTS BY TYPES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
<p>Source documents necessary for the operations to be performed, such as:</p> <ul style="list-style-type: none"><li>Payroll records</li><li>Invoices</li><li>Checks received as accounts</li><li>Bills</li><li>Purchase orders</li><li>Deposit slips (Banking)</li></ul> <p>Sorter</p>	<p>Locate source documents</p> <p>Bring source documents to sorting area</p> <p>Sort source documents into logically appropriate divisions and order necessary for processing</p> <p>Dispose, appropriately, of source documents not needed for the current operations</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Determine type of work to be done and which source documents are needed</p> <p>Determine divisions and order of items to be sorted</p>	<p>The schedule of work to be performed by the machine</p> <p>Content and nature of source documents</p>	<p>Loss of revenue</p> <p>Errors in firm's books</p> <p>Legal problems</p> <p>Loss of time</p>

TASK STATEMENT) GATHER AND SORT SOURCE DOCUMENTS BY TYPES

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral science (see index)		Use of numbers without calculations-ordering [source documents]	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading  Viewing	Determining type of source documents sorted Hand sorting checks (banking) by color, shape, size as well as detail	Comprehension, definition, terminology detail/inference Visual analysis, memory, description, logic, detail/inference, color discrimination, recognition of symbols, codes, and emblems	



TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
<p>Firm's policies on inspection of source documents</p> <p>Adding listing machine or calculator</p>	<p>Read firm's policies related to task</p> <p>Examine source documents, while sorting them</p> <p>Compare source documents to firm's standards for completeness</p> <p>Dispose of source document that does not meet firm's standards</p>	
<p><u>DECISIONS</u></p> <p>Decide if source document is to be questioned as to its completeness and/or validity</p> <p>Decide if source document meets firm's standards</p> <p>Decide to dispose of source document in accord with firm's policies or to allow it to continue on in the bookkeeping/accounting process</p>	<p><u>CUES</u></p> <p>Items have parts missing and/or are completed incorrectly</p> <p>Completed source document may be forged</p>	<p><u>ERRORS</u></p> <p>Loss in revenue</p> <p>Error in firm's books</p> <p>Loss of employment</p> <p>Legal problems</p>

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Estimation - Comparison Compare various amounts [dollars, numbers on items, weights, etc.] on source documents with reasonable amounts in light of experience and/or firm's policies Fundamental operations (calculations) Addition Subtraction Multiplication Basic arithmetic skills and concepts [finding a percent of a number and what percent one number is of another] Use of computing devices and mechanical aids	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading  Viewing	Examining source documents  Comparison of appearance of source document with standards	Comprehension, detail/inference, definition, terminology Visual analysis, memory, description, logic, detail/inference, color discrimination, recognition of symbols, codes and emblems	

ADD SOURCE DOCUMENTS BY TYPE AND COMPARE TOTALS WITH SUCH OTHER TOTALS, WHERE POSSIBLE, TO  
(TASK STATEMENT) INSURE ACCURACY AND/OR BALANCING

23

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
- Adding - listing machine or calculator	Run totals ("run tapes") on source documents, by types or sub-division Compare totals with other totals where possible to insure accuracy. Find any errors that result from this comparison and correct them Throw out task, continue inspection of source documents	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
Decide the order totals on source documents should be run Decide if errors(s) exist; and how it or they may be corrected Decide if errors have been corrected	Total(s) of tape(s) ran on divisions and/or types of source documents equal related totals	Loss of time Error in firm's books Loss of revenue

ADD SOURCE DOCUMENTS BY TYPE AND COMPARE TOTALS WITH SUCH OTHER TOTALS, WHERE POSSIBLE, TO  
 TASK STATEMENT) INSURE ACCURACY AND/OR BALANCING

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Fundamental operations (calculations) Addition Subtraction Division and multiplication (for locating and testing for transpositions) Use of computing devices and mechanical aids	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading  Viewing	Amounts and monitoring the validity of the sorting process Visual verification of validity of sorting process	Comprehension, detail/inference, definition, terminology Visual analysis, memory, describing, logic, detail/inference, color discrimination, recognition of symbols, codes, and emblems	

Duty C    Preparing the Machine Area for Operations

- 1    Read section (s) of machine's manual related to preparing the machine area for operations
- 2    Level the machine before starting it
- 3    Bring files ("cans") of records (ledgers, journals, etc.) to the work area for posting, journalizing, and/or other processing
- 4    Bring source documents (invoices, checks, etc.) to the work area for use in posting, journalizing, and/or other processing

25

(TASK STATEMENT) READ SECTION(S) OF MACHINE'S MANUAL RELATED TO PREPARING THE MACHINE AREA FOR OPERATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Machine's manual	Read section(s), of machine's manual related to preparing the machine's area for operations Prepare machine area for operations, in accord with machine's manual	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
Determine what needs to be done to machine's area to prepare it for operations	Machine's manual Machine has not been run before by the operator	Improper operation of machine Errors in firm's books Machine "down time"

TASK STATEMENT) READ SECTION(S) OF MACHINE'S MANUAL RELATED TO PREPARING THE MACHINE AREA FOR OPERATIONS

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading	Sections of machine's manual related to preparing machine for operations	Comprehension, detail/inference, description of mechanism, definition terminology	

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Machine's manual	Read section(s) in machine's manual related to task Level the machine	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
Decide if machine needs to be leveled	Instructions for leveling the machine The machine is, or is not, level	Accuracy of operations are jeopardized Damage to machine "down time"



(TASK STATEMENT) LEVEL THE MACHINE BEFORE STARTING IT

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS	
Reading	Manual	Comprehension, detail/inference, de scription of mechanism and definition, terminology Visual analysis, logic, detail/inference	
Viewing	Machine		

(TASK STATEMENT) BRING FILES ("CANS") OF RECORDS (LEDGERS, JOURNALS, ETC.) TO THE WORK AREA FOR POSTING, JOURNALIZING, AND/OR OTHER PROCESSING

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Necessary files ("can") of records needed for operations	Locate proper files Transport files to work area	
<u>DECISIONS</u>  Decide which files of ledgers, for example, are needed	<u>CUES</u>  Type of processing scheduled	<u>ERRORS</u>  Errors in firm's books Loss of time Loss of revenue

**TASK STATEMENT)** BRING FILES ("CAN") OF RECORDS (LEDGERS, JOURNALS, ETC.) TO THE WORK AREA FOR POSTING, JOURNALIZING, AND/OR OTHER PROCESSING

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Viewing	Files	Visual analysis, logic, detail/inference	

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Source documents which have been prepared for operations by the bookkeeping machine	Locate source document items ready for processing Take items to area of machine	
<u>DECISIONS</u> Determine which source document items are needed at the machine Determine that source documents items needed are at machines	<u>CUES</u> Schedule of work to be performed is being followed Operator understands the nature of the operations to be performed	<u>ERRORS</u> Generation of erroneous information by the operator Loss of time and increased errors

32

BRING SOURCE DOCUMENTS (INVOICE'S, CHECKS, ETC.) TO THE WORK AREA FOR USE IN POSTING, JOURNALIZING,  
AND/OR OTHER PROCESSING

ASK STATEMENT)

SCIENCE

Behavioral Science (see index)

MATH - NUMBER SYSTEMS

COMMUNICATIONS

PERFORMANCE MODES

Viewing

EXAMPLES

Source documents

SKILLS/CONCEPTS

Visual analysis, logic, detail/  
inference

Duty D Prepare the Machine for Operations

- 1 Read section (s) of machine's manual related to preparing the machine for operations
- 2 Clear any figures in item/posting counter, if needed
- 3 Load the machine with proper form (s)
- 4 Clear the machine of any totals, or other information, not needed on the current operations
- 5 Place proper date in the machine
- 6 Verify and insure that the operational mode of the machine is consistent with current

## (TASK STATEMENT) READ SECTION(S) OF MACHINE'S MANUAL RELATED TO PREPARING THE MACHINE FOR OPERATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS. ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Machine's manual	Read section(s) of machine's manual related to preparing the machine for operations Prepare the machine for operations in accord with machine's manual i.e., uncover machine, plug machine in- to power source, turn on machine	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
Decide what needs to be done to prepare the machine for operations	Manual instructions	Machine "down time" Errors in firm's books

TASK STATEMENT) READ SECTION(S) OF MACHINE'S MANUAL RELATED TO PREPARING THE MACHINE FOR OPERATIONS

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Use of computing devices and mechanical aids	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading	Section (s) of machine's manual related to preparing machine for operations	Comprehension, detail/inference, description of mechanism, definition, terminology	



TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
<p>Machine's manual Tools necessary to clear any figures in item/posting counter</p>	<p>Read section(s) in machine's manual related to counting items processed during and/or by operations Set machine to count</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide if pending operations necessi- tates the counting of any items Decide if machine is capable of count- ing items Decide how to set machine for count- ing</p>	<p>Firm requires a count of items Machine is designed to count</p>	<p>Error in and/or an incomplete, count of items Loss of time Error in operations</p>

TASK STATEMENT) CLEAR ANY FIGURES IN ITEM/POSTING COUNTER, IF NEEDED

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Use of computing devices or mechanical aids	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading	Manual	Comprehension, detail/inference, description of mechanism, definition, terminology	

(TASK STATEMENT) LOAD THE MACHINE WITH PROPER FORM(S)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
<p>Forms necessary for pending operations such forms as Journals (of a given type) Checks Invoices Payroll register</p>	<p>Read section(s) in machine's manual related to loading the machine Load the machine</p>	<p>Keep clothing, hair, etc., trim openings and exposed moving parts of the machine Results of unsafe performance-shock and injury</p>
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide which operation(s) is/are to be performed Decide which form(s) is/are to be loaded (or fed) in the machine, if any</p>	<p>Machine's manual</p>	<p>Machine may not operate with no or wrong form Loss of time Errors in firm's books Errors in operations</p>

## SCIENCE

Behavioral Science (see index)

## MATH - NUMBER SYSTEMS

Use of computing devices or mechanical aids

## COMMUNICATIONS

PERFORMANCE MODES

Reading

EXAMPLES

Manual

SKILLS/CONCEPTSComprehension, detail/inference,  
description of mechanism, definition  
terminology

## (TASK STATEMENT)

CLEAR THE MACHINE OF ANY TOTALS, OR OTHER INFORMATION, NOT NEEDED ON THE CURRENT OPERATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Machine manual	Read section(s) in machine's manual on clearing the machine of totals, or other information not needed for current operations Clear the machine according to instruc- tions in the manual	
<u>DECISIONS</u>  Decide if machine needs to be cleared Decide how to clear the machine	<u>CUES</u>  Machine was not cleared at end of previous operations Machine's manual calls for clearing the machine	<u>ERRORS</u>  Errors in firm's books Loss of time Errors in operations

ASK STATEMENT) CLEAR THE MACHINE OF ANY TOTALS, OR OTHER INFORMATION, NOT NEEDED FOR THE CURRENT OPERATION

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Use of computing devices or mechanical aids	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading	Manual	Comprehension, detail/inference, description of mechanism, terminology, definition	

(TASK STATEMENT) PLACE PROPER DATE IN THE MACHINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Whatever device, if any, prescribed by the manufacturer to change the date and/or in-put other necessary information	Set whatever dials, etc., that need to be adjusted to place the correct date and/or other necessary in-put into the operations	
<u>DECISION</u>  Decide if any changes in dates, etc. need to be made Decide if changes are correct	<u>CUES</u>  Wrong date, etc., is revealed to be in the machine's potential operations	<u>ERRORS</u>  Loss of revenue Errors in operations Errors in firm's books Loss of time Legal problems

## SCIENCE

Behavioral Science (see index)

## MATH - NUMBER SYSTEMS

Use of computing devices or mechanical aids

## COMMUNICATIONS

PERFORMANCE MODES

Reading

EXAMPLES

Necessary in-put information

SKILLS/CONCEPTSComprehension, detail/inference,  
definition, terminology



(TASK STATEMENT) VERIFY AND INSURE THAT THE OPERATIONAL MODE OF THE MACHINE IS CONSISTENT WITH CURRENT OPERATIONS

45

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
<p>Programing tape(s) and/or Programing card(s)</p>	<p>Verify type of operations to be performed Examine program(s) and/or operational mode(s) that are needed for the operations to be performed. Make sure these are used and others have been removed and/or erased Place appropriate program(s) and/or mode(s) in machine</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide which operations is to be performed Decide which program(s) and/or mode(s) are needed Decide if correct program(s) and/or mode(s) are in machine</p>	<p>Machine may not function Machine operations are confused and/or inaccurate</p>	<p>Lost revenue and time Firm's books are in error Machine may be damaged Firm's records may be damaged</p>

TASK STATEMENT) VERIFY AND INSURE THAT THE OPERATIONAL MODE OF THE MACHINE IS CONSISTENT WITH CURRENT OPERATIONS

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Math necessary to program a given machine Use of computing devices or mechanical aids	
COMMUNICATIONS			
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS	
Reading Viewing	Reading necessary to insure proper verification of program Examining evidence of proper program	Comprehension, detail/inference, definition, terminology Visual analysis, memory, logic, detail/inference, color discrimination, recognition of symbols, codes, emblem	

## Duty E Operating the Bookkeeping-Machine

- 1 Read the section(s) of the machine's manual related to operating the machine
- 2 Select the proper record (for example: ledger) from the files ("can")
- 3 Place the machine into proper alignment(s)/sub-mode(s) to receive the ledger on other items
- 4 Insert the appropriate ledger (or other item) into the machine, anually in-put data from the ledger (or other items) by using the machine(s) keyboard
- 5 Select the proper source document necessary for a given operation
- 6 Depress proper keys on the machine's keyboard, according to the figures shown on the source document(s) and the operation to be performed
- 7 Activate the machine to function according to its mode(s) and/or sub-mode(s); or, allow the machine to function, processing the in-put data
- 8 Remove the processed ledger (or other item) from the machine
- 9 Return the processed ledger (or other item) to its proper place in the file ("can")
- 10 Place the source document aside in an appropriate place
- 11 Monitor all procedures and documents for errors; and, correct errors according to established procedures and policies
- 12 Correctly suspend operation of the machine when temporarily necessary
- 13 Total, or "clear," the machine when last posting, journalizing and/or other operation is completed
- 14 Verify total(s)-resulting from "clearing" the machine-with total(s) on the type of source document. Verify accuracy of posting, journalizing and/or other completed operations
- 15 Record all figures and totals necessary, as directed
- 16 Use, appropriately, the count made by the counter of items/postings
- 17 Bundle source documents by type
- 18 React to safety emergencies according to established procedures

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Machine's manual	Read section(s) of machine's manual related to the operation of the machine	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
Decide to read those related sections of the machine's manual	Needing to operate a machine whose manual has not been read	Damage to machine - "down time" Loss of machine Damage to and/or loss of records of firm Loss of job


TASK STATEMENT)

READ THE SECTION(S) OF THE MACHINE'S MANUAL RELATED TO OPERATING THE MACHINE

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading	Reading sections of manual related to machine's operations	Comprehension, detail/inference, description of mechanism, definition terminology	

(TASK STATEMENT) SELECT THE PROPER RECORD (FOR EXAMPLE: LEDGER) FROM THE FILE ("CAN")

50

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
<p>Ledgers and/or other items to be used in current operations</p>	<p>Select the proper ledger</p>	
<p><u>DECISIONS</u></p> <p>Decide if proper ledger has been selected</p>	<p><u>CUES</u></p> <p>The item is next in the file/can, etc. The source document is related to item</p>	<p><u>ERRORS</u></p> <p>Errors in firm's books Errors in operations Loss of revenue Legal problems Public relations problem</p> 

50

ASK STATEMENT) SELECT THE PROPER RECORD (FOR EXAMPLE: LEDGER) FROM THE FILE ("CAN")

## SCIENCE

Behavioral Science (see index)

## MATH - NUMBER SYSTEMS

Use of numbers without calculation-coding [maybe necessary to recognize various accounts numbers]

## COMMUNICATIONS

PERFORMANCE MODES

Reading

EXAMPLES

To select proper ledger

SKILLS/CONCEPTSComprehension, detail/inference,  
definition, terminology

(TASK STATEMENT) PLACE THE MACHINE INTO PROPER ALIGNMENT(S)/SUB-MODE(S) TO RECEIVE THE LEDGER OR OTHER ITEMS

52

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
	Activate the machine so as to place it in an alignment that will receive necessary forms for the pending operations	
<u>DECISIONS</u>  Decide if machine must be placed into an alignment necessary to receive a ledger or other item	<u>CUES</u>  Ledger and/or other item, and/or source documents related to the current alignment of the machine	<u>ERRORS</u>  Errors in machine's operations Errors in firm's books Loss of time Damage to forms



(TASK STATEMENT) PLACE THE MACHINE INTO PROPER ALIGNMENT(S)/SUB-MODE(S) TO RECEIVE THE LEDGER OR OTHER ITEM

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Use calculating devices or mechanical aids	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Viewing	Machine	Visual analysis, detail/inference, logic, recognize symbols, codes and emblems	

(TASK STATEMENT)

INSERT THE APPROPRIATE LEDGER (OR OTHER ITEM) INTO THE MACHINE, ANUALLY IN-PUT DATA FROM THE LEDGER (OR OTHER ITEMS) BY USING THE MACHINE'S KEYBOARD

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Ledger and/or proper form to be inserted in machine prior to operations	Insert properly selected item into machine Dryness necessary and/or appropriate keys on the machine's keyboard(s) to in-put figures on the ledger and/or proper form	Keep clothing, hair etc., from openings and exposed moving parts of the machine Results of unsafe performance, injury and shock
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
Decide where and how item is to be inserted Decide if item has been inserted properly	Machine reacts properly	Errors in firm's books Damage to records Error in operations Machine may not function

54

54

ASK STATEMENT) INSERT THE APPROPRIATE LEDGER (OR OTHER ITEM) INTO THE MACHINE, ANUALLY IN-PUT DATA FROM THE LEDGER (OR OTHER ITEM) BY USING THE MACHINE'S KEYBOARD

SCIENCE	MATH - NUMBER SYSTEMS
Behavioral Science (see index)	Ability to read numbers accurately so as to be able to in-put manually, those figures necessary for operations Use computing devices or mechanical aids

COMMUNICATIONS

<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>
Reading	Machine's in-put mechanism	Comprehension, detail/inference, definition, terminology

(TASK STATEMENT) SELECT THE PROPER SOURCE DOCUMENT NECESSARY FOR A GIVEN OPERATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Source documents i.e., Payroll records Invoices Purchase orders Checks to be paid and/or deposits to be credited (banking)	Select from the source documents at hand a given source document for an operations	
<u>DECISIONS</u>  Decide if proper source document has been selected	<u>CUES</u>  The type of operations to be performed related to the source document	<u>ERRORS</u>  Errors in firm's books Loss of revenue Misplaced records

56

(TASK STATEMENT) SELECT THE PROPER SOURCE DOCUMENT NECESSARY FOR A GIVEN OPERATION

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science(see index)		Use of numbers without calculation-coding [recognize various account numbers]	
COMMUNICATIONS			
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS	
Reading	Selecting proper source document	Comprehension, detail/inference, definition, terminology	

(TASK STATEMENT)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
<p>Source document(s) Machine keyboard</p>	<p>Depress necessary and/or appropriate keys on the machine's keyboard(s) to in-put figures on source document(s)</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide if necessary keys have been depressed</p>	<p>Necessary source document is ready for processing Machine receives depressing of keys, or machine reacts properly</p>	<p>Errors in firm's books Errors in operations Loss of revenue Public relations problems Machine may not function</p>

58

## (TASK STATEMENT)

DEPRESS PROPER KEYS ON THE MACHINE'S KEYBOARD, ACCORDING TO THE FIGURES SHOWN ON THE SOURCE DOCUMENT(S) AND THE OPERATION TO BE PERFORMED

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Ability to read numbers accurately so as to depress proper keys on machine to in-put information from source documents Use of numbers without calculations Use of computing devices and mechanical aids	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading	Machine's in-put mechanism	Comprehension, detail/inference, definition, terminology	

(TASK STATEMENT)

ACTIVATE THE MACHINE TO FUNCTION ACCORDING TO ITS MODE(S) AND/OR SUB-MODE(S); OR, ALLOW THE MACHINE TO FUNCTION, PROCESSING THE IN-PUT DATA

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD 60
Machine	Activate the machine Allow the machine to operate or function	Keep clothing, hair, etc., from openings and exposed moving parts of the machine Results of unsafe performance - injury
<u>DECISIONS</u>  Decide if machine is really to be activated Decide if machine is reacting properly to in-put	<u>CUES</u>  Machine is functioning properly in light of type of operations being performed	<u>ERRORS</u>  Machine may not operate Loss of time

60



ACTIVATE THE MACHINE TO FUNCTION ACCORDING TO ITS MODE(S) AND/OR SUB-MODES; OR, ALLOW THE MACHINE TO FUNCTION, PROCESSING THE IN-PUT DATA

## SCIENCE

Behavioral Science (see index)

## MATH - NUMBER SYSTEMS

## COMMUNICATIONS

PERFORMANCE MODES

Reading

EXAMPLES

Machine's activating mechanism

SKILLS/CONCEPTSComprehension, detail/inference,  
definition, terminology

61

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Ledger and/or proper form that is currently within the machine	Grasp and remove ejected, or partially ejected, ledger or proper form from the machine	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
Decide if machine has completed its use of, or need for, the ledger and/ or proper form it has had within it	Machine pauses Machine stops Ledger and/or proper form is ejected, or partially ejected, from the machine	Ledger and/or proper form may not be ejected properly Loss of time Damage to firm's records

(TASK STATEMENT) REMOVE THE PROCESSED LEDGER (OR OTHER ITEM) FROM THE MACHINE

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Viewing	Machine, ledger	Visual analysis, logic, detail/inference	

(TASK STATEMENT) RETURN THE PROCESSED LEDGER (OR OTHER ITEM) TO ITS PROPER PLACE IN THE FILE ("CAN")

64

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Processed ledger and/or proper form that has been removed from the machine	Place processed ledger and/or form into its correct place in the file	
<u>DECISIONS</u>  Decide if processed ledger and/or form has been returned correctly to its place in the file	<u>CUES</u>  Item returned is related to items near its place in the file	<u>ERRORS</u>  Loss of time Public relations problem

SCIENCE		MATH -- NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Viewing	Ledger and files	Visual analysis, logic, detail/inference	

PLACE THE SOURCE DOCUMENT ASIDE IN AN APPROPRIATE PLACE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Source document	Place processed source document in appropriate place	
<u>DECISIONS</u> Decide if all necessary information on the given source document has been processed Decide where and in what order to place the item	<u>CUES</u> All information has been used in the current operation	<u>ERRORS</u> Errors in firm's operation Loss of time

ASK STATEMENT)

PLACE THE SOURCE DOCUMENT ASIDE IN AN APPROPRIATE PLACE

## SCIENCE

Behavioral Science (see index)

## MATH – NUMBER SYSTEMS

## COMMUNICATIONS

PERFORMANCE MODES

Viewing

EXAMPLES

Source document

SKILLS/CONCEPTS

Visual analysis, logic, detail/inference

67

## (TASK STATEMENT)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
	Observe all procedures involved in processing Correct errors	
<u>DECISIONS</u>  Determine if operations are proceeding accurately toward completion	<u>CUES</u>  Balances of accounts seem reasonable in light of current input and operations	<u>ERRORS</u>  Loss of time and revenue Legal problems Public relations problems Errors in firm's books



SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Must understand transpositions and their corrections Perform fundamental operations Addition Subtraction Multiplication Division	
COMMUNICATIONS			
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS	
Reading  Writing	Reading documents for errors  Correcting errors	Comprehension, detail/inference, definition, terminology Penmanship, classification, spelling, description, clarity of expression, usage	

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY — HAZARD
<p>Ruler (s) and/or other item (s) that may serve as appropriate markers</p>	<p>Turn off machine, if appropriate Leave proper marker (s) in source documents as reminder (s) as to where to resume operations</p>	<p>Bookkeeping machine must be turned off Results of unsafe performance - injury</p>
<p><u>DECISIONS</u></p> <p>Decide if operations are to be interrupted Decide when/how to mark place in work Decide if it is necessary to turn machine off, temporarily</p>	<p><u>CUES</u></p> <p>Work is interrupted Break time Short term problems, or considerations, demanding the operator's attention away from the machine</p>	<p><u>ERRORS</u></p> <p>Loss of time and revenue Errors in firm's books Damage to records and/or machine</p>

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Viewing	Machine's control	Visual analysis, logic, detail/inference	

(TASK STATEMENT) TOTAL, OR "CLEAR," THE MACHINE WHEN LAST POSTING, JOURNALIZING AND/OR OTHER OPERATION IS COMPLETED

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD 72
Machine's manual	Read section(s) of machine's manual related to clearing the machine at end of operations Clear machine of last ledger and/or form that has been inserted for processing Activate the machine so as to cause it to total-out or clear itself of the results of operations	
<u>DECISIONS</u>  Decide if operations have been completed	<u>CUES</u>  Information from last source document, involved in current operations, has been used as in-put	<u>ERRORS</u>  Loss of revenue Loss of information Error in firm's book

TASK STATEMENT) TOTAL, OR "CLEAR," THE MACHINE WHEN LAST POSTING, JOURNALIZING AND/OR OTHER OPERATIONS IS COMPLETED

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Use of computing devices and mechanical aids	
COMMUNICATIONS			
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS	
Reading	Machine manual	Comprehension, detail/inference, description of mechanism, definition terminology	
Viewing	Machine	Visual analysis, logic, detail/inference	

VERIFY TOTAL(S) - RESULTING FROM "CLEARING" THE MACHINE - WITH TOTAL(S) ON THE TYPE OF SOURCE DOCUMENT. VERIFY ACCURACY OF POSTING, JOURNALIZING, AND/OR OTHER COMPLETED OPERATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD 74
Tapes that show totals of source documents being processed	Compare totals resulting from the clearing operation with totals available on source documents Seek help if figures cannot be balanced	
<u>DECISIONS</u>  Decide if clearing figures balance with totals of source document Decide if assistance is needed in balancing at the end of operation	<u>CUES</u>  Figures for clearing are the same as those on tapes of source documents	<u>ERRORS</u>  Errors in operations Errors in firm's books Loss of time

74

VERIFY TOTALS - RESULTING FROM "CLEARING" THE MACHINE - WITH TOTALS ON THE TYPE OF SOURCE DOCUMENT. VERIFY ACCURACY OF POSTING, JOURNALIZING, AND/OR OTHER COMPLETED OPERATIONS

SCIENCE		MATH – NUMBER SYSTEMS	
		Understand transpositions and their correction Perform fundamental operations Addition Subtraction Multiplication Division	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading Writing	Totals resulting from clearing the machine Recording such totals as are necessary	Comprehension, detail/inference Penmanship, classification, logic	

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
<p>Pen and/or pencil Firm's policies and procedures on recording results of operations Forms necessary for reports</p>	<p>Read firm's policies and procedures related to task Place results of operations on report form Report to department</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide which figures and/or totals resulting from operations need to be recorded and/or reported, in light of firm's policies and procedures</p>	<p>Other departments need a result of operations Other operators are making reports</p>	<p>Errors in firm's books Loss of revenue Loss of time, by other departments Loss of job</p>



## TASK STATEMENT) RECORD ALL FIGURES AND TOTALS NECESSARY, AS DIRECTED

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Capacity to record numerals correctly in and/or on correct report forms	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Writing	Placing totals on reports	Penmanship, spelling, classification, description, reports-information, clarity of expression, logic Comprehension, logic, detail/inference, terminology	
Reading	Policies and procedures		

(TASK STATEMENT) USE, APPROPRIATELY, THE COUNT MADE BY THE COUNTER OF ITEMS/POSTINGS

78

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
<p>Pen and pencils Forms necessary for report Firm's policies and procedures on recording results of item/posting count</p>	<p>Read firm's policies and procedures related to task Place necessary information in and/or on necessary reports</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide which count information needs to be reported, in light of firm's policies</p>	<p>Other departments need the results of the count Other operators are making count report</p>	<p>Loss of time by other departments</p>

78

SCIENCE		MATH - NUMBER SYSTEMS	
Behavioral Science (see index)		Capacity to record numerals correctly in and/or report forms	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Writing	Placing totals on reports	Penmanship, spelling, classification, description, reports - information, clarity of expression, logic	
Reading	Policies and procedures	Comprehension, detail/inference, logic, terminology	

## (TASK STATEMENT) BUNDLE SOURCE DOCUMENTS BY TYPE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Rubber bands Source documents in area of operation	Bundle and secure source documents no longer needed in operations, those ready for returning to files and/or other departments	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
Decide if source documents are needed any longer at place of operations	All source documents needed for a given operation have been processed	Errors in firm's books Loss of revenue Misfiled records/source documents

DECISIONS

Decide if source documents are needed any longer at place of operations

CUES

All source documents needed for a given operation have been processed

ERRORS

Errors in firm's books  
Loss of revenue  
Misfiled records/source documents

## SCIENCE

Behavioral Science (see index)

## MATH – NUMBER SYSTEMS

## COMMUNICATIONS

PERFORMANCE MODES

Reading

EXAMPLES

Separating source documents into  
bundles for return to files and/or  
delivered to other departments

SKILLS/CONCEPTS

Comprehension, detail/inference,  
Definition, terminology

## (TASK STATEMENT) REACT TO SAFETY EMERGENCIES ACCORDING TO ESTABLISHED PROCEDURES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
<p>See sections of machine's manual related to the task</p> <p>Firm's safety and emergency policies</p> <p>Equipment necessary and proper to meet peculiar safety and emergency needs of the firm, including proper alarms systems</p>	<p>Read sections of machine's manual related to task</p> <p>Read firm's policies related to task</p> <p>Follow, where possible, established procedures for handling safety emergencies</p> <p>Sound proper alarms</p>	<p>Safety rules established by the firm in light of its peculiar safety and emergency problems</p> <p>Use proper equipment to meet the peculiar problems in a given situation</p> <p>Sound proper alarms</p> <p>Results of unsafe performance</p> <p>Injuring, shock and/or death</p>
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide if a given occurrence warrants</p> <p>Decide if there is a danger in working with the machine</p> <p>Decide on steps to lessen possibilities of injury and danger</p>	<p>Strange aromas</p> <p>Flames and/or sparks in operations area or in a machine</p> <p>Cry of pain, or call for help</p>	<p>Injury, shock and/or death to an operator</p> <p>Damage to machines and/or "down time"</p> <p>Loss of revenue, records, and building</p> <p>Loss of job</p>

## TASK STATEMENT)

REACT TO SAFETY EMERGENCIES ACCORDING TO THE ESTABLISHED PROCEDURE

SCIENCE		MATH - NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading	Safety, policies	Comprehension, detail/inference, definition, terminology	

Duty F Closing the Machine and the Area After Operations

- 1 Close the machine
- 2 Remove processed source documents to their proper storage or file locations
- 3 Remove the files ("cans") of posted/processed records (for example: ledgers) to their proper storage locations



(TASK STATEMENT) CLOSE THE MACHINE

85

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
	Turn off machine Disconnect from power source Cover machine	Area of machine should be dry Unplug machine by holding wire, not plug Results of unsafe performance- shock
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
Decide if machine should be turned off and/or disconnected	Work is completed	Machine may generate unnecessary heat Damage to machine--"downtime" Loss of job

85

ASK STATEMENT) CLOSE THE MACHINE

## SCIENCE

Behavioral Science (see index)

## MATH - NUMBER SYSTEMS

## COMMUNICATIONS

PERFORMANCE MODESEXAMPLESSKILLS/CONCEPTS

## (TASK STATEMENT)

REMOVE PROCESSED SOURCE DOCUMENTS TO THEIR PROPER STORAGE OR FILE LOCATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
<p>Firm's policies and procedures relating to processed material Processed source documents</p>	<p>Read firm's policies to task Processed materials such as journals, and/or other source documents must be placed in their file and/or storage</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide if processed materials such as journals, etc., are needed further Decide where items are to be delivered</p>	<p>Processed items are not needed for further processing</p>	<p>Loss of revenue and time in and/or by other departments Loss of records Errors in firm's books</p>

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	

REMOVE THE FILES ("CANS") OF POSTED/PROCESSED RECORDS (FOR EXAMPLE: LEDGERS) TO THEIR  
PROPER STORAGE LOCATIONS

(TASK STATEMENT)

89

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
See firm's policies relating to posted (or processed) ledgers	Read firm's policies related to task Return processed (or posted) ledgers to their normal storage location	
<u>DECISIONS</u>  Decide if processed ledgers are needed further	<u>CUES</u>  Processed ledgers are not needed for further processing	<u>ERRORS</u>  Loss of revenue and time and and/or by other departments

89

## TASK STATEMENT)

REMOVE THE FILES ("CANS") OF POSTED/PROCESSED RECORDS (FOR EXAMPLE: LEDGERS) TO THEIR  
PROPER STORAGE LOCATIONS

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	

Duty G    **Maintaining Files of Bookkeeping Related Records in Correct Order, with  
Accurate Balances**

- 1    File and secure all material according to firm's policies
- 2    Report any unusual-questionable and/or potentially illegal-items of  
     information found in the files to at least two persons
- 3    Re-file, correctly, material found to have been misfiled
- 4    Run a trial balance on ledger (s) when required and/or advisable

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
<p>File system common to the firm Firm's policies related to task as stated</p>	<p>Read firm's methods and/c policies of filing material File items according to firm's methods and/or policies Secure items according to policies</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide if item is to be filed Decide where item is to be filed Decide if item has been filed correctly Decide if there is another item to be filed Decide if firm's need for file, for the operation, is finished Determine where to place file Decide if files are safe</p>	<p>Material (ledgers, journals, etc.) is not needed for processing by the machine at time Work/operations are finished</p>	<p>Lost business material Errors in information generated by operations Files stolen, destroyed, tampered with</p>



## SCIENCE

Behavioral Science (see index)

## MATH - NUMBER SYSTEMS

For filing by a numerical system, ordering, indexing,  
and/or coding may be necessary

## COMMUNICATIONS

PERFORMANCE MODES

Reading

Speaking

Listening

Viewing

EXAMPLES

Material type to be filed

Asking advice on filing problems

Answers to advice on filing

Item to be filed

SKILLS/CONCEPTSComprehension, detail inference,  
definitionTerminology/general vocabulary,  
appropriate diction, enunciation,  
clarity of expression, logic,  
usageAuditory discrimination, concen-  
tration, logic, word definitionVisual analysis, memory, describing,  
logic, detail and inference, color  
discrimination, recognition of  
symbols, codes

## (TASK STATEMENT)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
<p>Firm's policies on how to handle unusual and/or sensitive information</p>	<p>Read firm's security policies (on handling and mishandling) for potentially sensitive information and materials</p> <p>Follow the firm's policies, report what may warrant reporting to at least two persons of authority</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide if material or information needs to be reported</p> <p>Decide which persons should be informed</p> <p>Decide if information has been communicated to the proper persons</p>	<p>More than one record/ledger on a given account</p> <p>Items which reveal potential loss or compromise of the firm's sensitive/classified information</p>	<p>Conviction for a felony-public relations problems</p> <p>Loss of employment</p>

TASK STATEMENT)

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS	
Listening	Instructions on sources of action to this task	Auditory discrimination, discriminate facts from non-facts, recognize-opinions, word definition	
Viewing	Does item in question warrant reporting	Visual analysis, memory, describing, logic, detail and inference, color discrimination, recognition of codes symbols, and emblems	
Speaking	Informing firm's management of unusual find	Terminology/general vocabulary, logic, appropriate diction, implying, enunciation, clarity of expression, usage	
Reading	Firm's policies related to this task	Comprehension, detail/inference, definition, terminology	
Writing	Report on an unusual item found	Penmanship, spelling, memo format, description, reports-informational, clarity of expression, logic, usage	

(TASK STATEMENT)

RE-FILE, CORRECTLY, MATERIAL FOUND TO HAVE BEEN MISFILED

86

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
File system common to the firm	Read firm's methods and/or policies of filing material Locate misfiled item Locate correct place in file for the item Place misfiled item in correct position in file	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
Decide if item has been misfiled Decide correct place for item in filing system Decide if item has been correctly re-filed	Item that may be misfiled does not resemble other items near its location (size, shape, color, etc.)	Lost business material Errors in information generated by operations

ASK STATEMENT) RE-FILE, CORRECTLY, MATERIAL FOUND TO HAVE BEEN MISFILED

SCIENCE		MATH - NUMBER SYSTEMS
Behavioral Science (see index)		For filing by a numerical system, ordering, indexing and/or coding may be necessary
COMMUNICATIONS		
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>
Reading	Determining type of source documents sorted	Comprehension, definition, detail and inference, terminology
Viewing	Hand sorting checks (banking) by color, shape, size as well as detail	Visual analysis, memory, description logic, detail and inference, color discrimination, recognition of symbols, codes, and emblems
	File all material according to policy	

## (TASK STATEMENT)

RUN A TRIAL BALANCE ON LEDGER(S) WHEN REQUIRED AND/OR ADVISABLE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
<p>Adding listing machine or calculator Firm's policies related to task</p>	<p>Read firm's policies related to task Acquire ledgers that are to have a trial balance made Add ledgers Compare the total of the trial balance with the total of the control account If totals do not balance, run the trial balance a second time; compare the two tapes and locate the error Correct the error Report the balancing, if necessary and/or advisable</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Determine if trial balance is to be run Determine if trial balance equals control account Determine nature of error, if any Determine how to correct error Determine if new trial balance is necessary Determine if comparison of trial balances are in agreement Determine if error has been corrected</p>	<p>Control account and trial balance are not in agreement</p>	<p>Firm's books will be out of balance Error in trial balance may compound errors later in accounting cycle</p>

TASK STATEMENT) RUN A TRIAL BALANCE ON LEDGER(S) WHEN REQUIRED AND/OR ADVISABLE

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Fundamental Operations Addition Subtraction Division (location of transpositions)  Use of computing devices and mechanical aids	
COMMUNICATIONS			
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS	
Speaking	Getting assistance with task	Terminology/general vocabulary, appropriate diction, enunciation, clarity of expression, logic, usage	
Reading	Firm's policies on trial balances	Comprehension, detail inference, Penmanship, logic, clarity of expression	
Writing	Finding errors	Auditory discrimination, discriminate facts from non-facts, concentration	
Listening	Assistance with task	logic	
Viewing	Looking for error	Visual analysis, memory, logic, detail and inference	

Duty H    Operating Various Related Office Machines

- 1    Operate a "10 key" adding-listing machine and/or calculator
- 2    Operate a "full key" adding-listing machine
- 3    Operate an alphabetic (and/or numerical) sorter
- 4    Operate a telephone



(TASK STATEMENT) OPERATE A "10 KEY" ADDING-LISTING MACHINE AND/OR CALCULATOR

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
10 key adding-listing machine and/or calculator Manuals for given machines	Read manuals for machines Follow directions given in manuals Practice with the machine(s)	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
Decide if machine's operations are understood	New machines are often not under- stood completely as to what operations may be performed on/by it	Loss of time and revenue Damage to machine Errors in firm's books

## TASK STATEMENT) OPERATE A "10 KEY" ADDING-LISTING MACHINE AND/OR CALCULATOR

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Ability to read numbers correctly  Use of computing devices and mechanical aids	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Touching	Running 10-key adding machine	Visual analysis, memory, logic, recognition of symbols, codes, and emblems  Comprehension, detail inference, description of mechanism, definition, terminology	
Viewing	Material to be added		
Reading	The manual of a new calculator		

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
<p>Full key adding-listing machine Manual(s) for a given machine(s)</p>	<p>Read manuals for machines Follow directions in manuals Practice with the machine(s)</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide if machine(s) operations are understood</p>	<p>New machines operations are not understood completely as to what operations may be performed on/by it</p>	<p>Loss of time and revenue Damage to machine Errors in firm's books</p>

## [TASK STATEMENT] OPERATE A "FULL KEY" ADDING-LISTING MACHINE

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Ability to read numbers correctly Use of computing devices and mechanical aids	
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Touching	Run a full key adding machine	Visual analysis, memory, logic, recognition of symbols, codes, and emblems  Comprehension, detail/inference, description of mechanism, definition, terminology	
Viewing	Material to be added		
Reading	The manual of a new calculator		

## (TASK STATEMENT) OPERATE AN ALPHABETIC (AND/OR NUMERICAL) SORTER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
<p>Alphabetic (and/or numerical) sorter Materials to be sorted alphabetically and/or numerically</p>	<p>Place sorter on appropriate work surface such as a table From the material to be sorted take item by item and place each within appropriate tabs on the sorter</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide behind which tab a given item is to be sorted</p>	<p>Materials are not in the order necessary for processing at the bookkeeping machine</p>	<p>Loss of revenue-loss of time Error in firm's books</p>

105

(TASK STATEMENT). OPERATE AN ALPHABETIC (AND/OR NUMERICAL) SORTER

SCIENCE		MATH — NUMBER SYSTEMS	
Behavioral Science (see index)			
COMMUNICATIONS			
<u>PERFORMANCE MODES</u>	<u>EXAMPLES</u>	<u>SKILLS/CONCEPTS</u>	
Reading	Items to be sorted alphabetically and/or numerically	Comprehension, detail inference, definition, terminology	

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
<p>Telephone Telephone book Various educational materials available from the phone company and/or the firm</p>	<p>Read educational material available from firm and/or telephone company Apply understandings gained Ask questions of experienced persons</p>	
<u>DECISIONS</u>	<u>CUES</u>	<u>ERRORS</u>
<p>Decide if telephone is to be more effectively and efficiently used</p>	<p>Communications are known to be not as productive as they might be</p>	<p>Loss of revenue-loss of time Errors in firm's books Legal problems Public relations problems</p>

107

SCIENCE		MATH – NUMBER SYSTEMS	
Behavioral Science (see index)		Ability to recognize and dial phone numbers	
COMMUNICATIONS			
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS	
Reading	Material related and necessary to operating a telephone more effectively and efficiently	Comprehension, detail/inference, description of mechanism, definition, terminology	
Speaking	To person on telephone	Terminology/general vocabulary, appropriate diction, implying, enunciation, clarity of expression usage	



## INDEX

### Attributes of maximum functioning capacity

Conscious awareness of the need for a balance (both mental and physical) between tension and relaxation. Relates to:

1. comfort
2. caution
3. safety
4. physical, emotional, and intellectual health

Conscious awareness of physical expressions basic to peak physical performance:

1. body rhythm
2. breathing coordinated with body movement
3. body balance and posture
4. movement from tension to relaxation and vice versa

Conscious awareness of qualities basic to optimal mental performance:

1. attention
2. observation
3. concentration
4. mental alertness
5. mental quietude
6. mental clarity
7. organization