

## PROGRAM MENENGAH VOKASIONAL

### 1. PREFACE

Program Menengah Vokasional (PMV) for lower secondary will be introduced commencing January 2008. This programme is aimed at equipping students with the necessary knowledge, skills and training that is required in their daily life as well as to gain employment in the private and government sectors.

The Program Menengah Vokasional will be initially implemented in a number of secondary schools. This new programme is intended for students who have not met the full requirement for main stream academic stream after passing their PSR examination. This program is appropriate to their level and previous achievement.

### 2. RATIONALE

The introduction of Program Menengah Vokasional are:

- in accordance to the National Education Policy which requires every child to be provided with 12 years of compulsory education;
- to develop a culture for life-long learning;
- to provide opportunity for PMV students to further their studies in the vocational field and as a preliminary step towards better opportunity for employment;
- to minimise the number of dropouts and reduce social problems;
- to offer a curricular programme based on the ability and performance of individual students; and
- to give greater opportunity for them to find better jobs related to IT.

### 3. AIMS

The aims of the Program Menengah Vokasional are:

- to extend and increase the literacy and numeracy skills of students;
- to offer students with practical subjects that provide 'hands on experience' according to their level of ability;
- to equip students with basic computer skills compatible with the needs of vocational and technical education;
- and
- to enable students to gain skills and experience for work in industry and other related services.

PROGRAM MENENGAH VOKASIONAL  
COMPUTER APPLICATIONS

INTRODUCTION This curriculum framework for the PMV is to be fully implemented beginning 2008.

The principal aim is to provide more practical and career-oriented education for students taking the PMV. Computer Applications can make significant and important contributions for these students and for after-school life. The increasing impact of ICT fits in well with the broader evolution towards a knowledge-based society. Professional environments are already largely ICT-oriented. Being able to handle text processing, data collection and manipulation and e-mail is self-evident in the professional world. ICT also offers many perspectives for the services provision to the citizen by the government. E-government or electronic public services are increasingly adapted at various levels of management, works and services. All citizens are increasingly confronted with these technologies and challenges. Students too must learn as quickly and as efficiently as possible to use computers. The labor market is strongly influenced to adapt policy to recruit intakes with education in ICT.

ABOUT THIS FRAMEWORK This Framework gives practical advice on meeting the curriculum requirements for Computer Applications capability.

The purposes of this Computer Applications Framework are:

- i. to clarify the aims of the Computer Applications curriculum; and
- ii. to set out teaching objectives and course guidelines that will empower teaching and enhance learning, through:
  - § what pupils learned in previous levels (PLE – previous learning experience) and develop their knowledge, skills and understanding in the subsequent levels; and
  - § integration with and taught alongside knowledge and understanding in a range of contexts, particularly to enhance and improve literacy and numeracy.

AIMS The main aims are:

§ to develop understanding and skills and the applications of real-life and career experiences through relevant classroom and school activities with the use of computers and application packages;

§ to apply understanding and skills of computing in other learning areas; and

§ to apply computing competency to improve literacy and numeracy.

## SYLLABUS

The syllabus is developed based on the fact that this cohort of students would fare better through hand-on activities that they can relate in their life and would be ultimately useful and purposeful in their career. They will use, apply and develop skills through the applications of 'models' such as produce storybooks, advertisements, digital editing, etc.

The syllabus contains two main components. The first component will be taught in the first six months of the first and second year and comprises the following chapters:

First Year	Second Year
§ Basic Computing	§ Multimedia developing
§ Introduction to computer	§ Graphic editing
§ Security and safety rules	§ Sound editing
§ Operating system	§ Video editing
§ Document Processing	§ Storyboarding
§ Word processing	§ Multimedia Authoring Tool
§ Spreadsheet	§ Web building
§ Presentation	§ Communicating
§ Publishing	§ Internet
§ Database	§ Electronic Mail

## ASSESSMENTS

There is no formal written assessment. However, continuous assessment (school based assessment) in the form of observations, portfolio and checklist will be carries out, recorded and compiled systemically.

COMPUTER APPLICATIONS  
PROGRAM MENENGAH VOKASIONAL  
PROGRAMME SYLLABUS

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## 1. INTRODUCTION TO COMPUTER

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- i. A computer
- ii. Parts of a computer
- iii. Hardware and software
- iv. Types of computer
- v. Input, Output and Storage Devices

### LEARNING OBJECTIVES

1. Be able to state the meaning of computer.
2. Be able to name the different components of a computer system.
3. Be able to differentiate the difference between hardware and software.
4. Be able to list different types of a computer.
5. Be able to identify and state the functions of input devices, output devices and storage devices.

### LEARNING OUTCOMES

At the end of the lessons, students will be able to ...

1. state the meaning of computer.
2. advantages and disadvantages of using computer.
3. name the different component of computer systems.
4. list the differences between hardware and software.
5. name the different types of computers according to the size, power and purposes : microcomputer, minicomputer and mainframe computer.
6. list some examples of input, output and storage devices.

### SUGGESTED LEARNING ACTIVITIES / METHODS

1. Task: a [survey form](#) where students can fill in some information about computers in front of them.  
(Appendix 1)
2. Group Work: Discuss benefits of using computers and simple characteristics of a computer.
3. Demonstration: Shows different components of a computer system.

4. Task: Search for pictures of different input, output storage devices and I/O units from the internet and state the uses of each device.
5. Task: Search different types of computers from the internet, copy and label the pictures.

#### RESOURCES

- B1. Paul McFedries , 2007, Teach Yourself Visually COMPUTERS(5<sup>th</sup> edition), Wiley Publishing, Inc (ISBN: 978-0-470-16878-3)
- B2. Jonathan Chan, 2007, Computer Applications Secondary 1, Pearson Longman.  
(ISBN: 978-981-247-524-4)
- B3. Jonathan Chan, 2007, Computer Applications Secondary 1 (Workbook), Pearson Longman.  
(ISBN: 978-981-247-525-1)

#### ASSESSMENT

1. Suggested Exercises: B3 (Page 1-10)

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## 2. SECURITY AND SAFETY RULES

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- i. Rules and procedures in computer lab

### LEARNING OBJECTIVES

- 1. Be able to practice basic safety rules in the computer lab.

### LEARNING OUTCOME

At the end of the lessons, students will be able to ...

- 1. state the Computer Lab Safety Rules.

### SUGGESTED LEARNING ACTIVITIES / METHODS

- 1. Group Work: Discuss rules for computer lab

### RESOURCES

- B2. Jonathan Chan, 2007, Computer Applications Secondary 1, Pearson Longman.  
(ISBN: 978-981-247-524-4)
- B3. Jonathan Chan, 2007, Computer Applications Secondary 1 (Workbook), Pearson Longman.  
(ISBN: 978-981-247-525-1)

### ASSESSMENT

- 1. Suggested Exercises: B3 (Page 21)

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### 3. OPERATING SYSTEM

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- i. Controlling Hardware
- ii. Running Software
- iii. Playing educational games
- iv. Using Windows Explorer and Managing Files
- v. Recycle Bin

#### LEARNING OBJECTIVES

1. Be able to practice on and off computer in the proper way.
2. Be able to explain the functions of the various keys on the computer keyboard.
3. Be able to list four basic operations with a mouse.
4. Be able to list some common game applications software. (Refer to B5)
5. Be able to use windows explorer features: My computer etc
6. Be able to organise the files and folders: Copy, Move, Rename and Delete a file.
7. Be able to describe the functions of recycle bin.

#### LEARNING OUTCOMES

At the end of the lessons, students will be able to ...

1. state proper way of turning on and off the computer.
2. check the drive space on the computer.
3. state the functions of the various keys on the computer keyboard.
4. list four basic operations with a mouse.
5. list three tips of using keyboard.
6. identify the functions of window features: My Computer, Recycle Bin etc.
7. copy, move, delete and rename files and folders.

#### SUGGESTED LEARNING ACTIVITIES / METHODS

1. Demonstration: Show Windows desktop and Windows Explorer screen.
2. Hands-on:
  - Create folders and sub-folders. Copy, move, delete and rename files.
  - Playing education games: Typing Tutor, Bookworm etc

## RESOURCES

- B2. Jonathan Chan, 2007, Computer Applications Secondary 1, Pearson Longman.  
(ISBN: 978-981-247-524-4)
- B3. Jonathan Chan, 2007, Computer Applications Secondary 1 (Workbook), Pearson Longman.  
(ISBN: 978-981-247-525-1)
- B4. G.S.Rao and A.K.Rao, 2001, An introduction to Information Technology (Workbook 1),  
Marshall Cavendish Education.
- B5. Suhaili, 2008, Direktori Permainan Internet Untuk Kanak-kanan(Online Games For  
Children), CDD

## ASSESSMENT

- 1. Suggested Exercises: B4(Page 52-57)

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## 4. WORD PROCESSING

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- i. Introduction to word processor
- ii. Customising documents
- iii. Entering and editing texts
- iv. Formatting texts and pages
- v. Working with tables
- vi. Inserting graphics
- vii. Previewing and printing document

### LEARNING OBJECTIVES

1. Be able to identify the features of word processor
2. Be able to create a document
3. Be able to show ability to format text, paragraphs and documents, including make use of automatic formatting tools.
4. Be able to insert, edit and format tables in a document.
5. Be able to insert graphics
6. Be able to preview and print the document

### LEARNING OUTCOMES

At the end of the lessons, students will be able to ...

1. identify the different part of word processor.
2. create, open and close documents.
3. save documents with different names and in a different folder.
4. type and edit and format text.
5. use character formatting and paragraph formatting task on the document.
6. insert graphics.
7. create, edit and format tables.
8. preview and print the document. (Appendix 2)

### SUGGESTED LEARNING ACTIVITIES / METHODS

1. Hands-on:

#### Basic

- Exercise 1: My Favourite Fruits.
- Exercise 2: Kenapa Perlu Tidur.

### Intermediate

- Type a letter and save it.
- Open, edit and save the letter again with the same name and with different names.
- Produce a brochure / flyer about computers.
- Design a letter head of your class newsletter.
- Design a catalogue of products (e.g. mobile phone, dresses...)
- Produce a report (include other formatting features).
- Creating a class time table

### RESOURCES

B6. Suhaili, 2008, Step By Step Word 2003, CDD

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## 4. SPREADSHEET

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- i. Introduction to spreadsheet
- ii. Entering data and selecting cell
- iii. Editing a Worksheet
- iv. Using Formulas and Functions
- v. Formatting Worksheet
- vi. Working with charts
- vii. Previewing and printing worksheet

### LEARNING OBJECTIVES

1. Be able to identify the features of spreadsheet
2. Be able to create a worksheet
3. Be able to show ability to format data in cells, including using automatic formatting and setting tools.
4. Be able to practice and handle formulas and functions for calculations and comparisons
5. Be able to create, edit and format every feature in a chart.
6. Be able to prepare outputs or hard copies

### LEARNING OUTCOMES

At the end of the lessons, students will be able to ...

1. identify the different part of presentation
2. open, create, save and close workbooks
3. enter text and numbers
4. format text and numbers
5. apply borders and shading
6. handle worksheets: create, rename & delete worksheets
7. range of cells manipulation (Appendix 4)
8. insert and modify arithmetic formula
9. insert and modify functions
10. recognize common errors made when using formulas and functions.
11. create, insert, modify, label and format charts in a worksheet
12. duplicate, move charts within a worksheet, between open spreadsheets.
13. apply proper formatting and page setup features.
14. preview a worksheet
15. print a worksheet (Appendix 5)

## SUGGESTED LEARNING ACTIVITIES / METHODS

### 1. Hands-on:

#### Basic

- Exercise 1: Types of cars used in schools
- Exercise 2: Geography marks for Form One

#### Intermediate

- Exercise 3: Produce an expenditure list with borders and shading and save it. Open the saved list, edit it and save it again with the same name and with different names (in different folders).
- Produce a class mark sheet and save it. (Include Attendance & Ranking) OR Produce a budget for an educational visit to a neighbouring country
- Produce a chart on population growth of Brunei Darussalam OR Produce a chart showing the ratio on school club members.
- Retrieve some files created earlier then do formatting tasks. Apply page setup properties. Print the files.

## RESOURCES

B7. Suhalli, 2008, Step By Step Excel 2003, CDD

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## 5. PRESENTATION

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- i. Introduction to presentation application program
- ii. Creating a presentation
- iii. Editing Slides
- iv. Adding objects to slides
- v. Enhancing a presentation
- vi. Fine-Tuning a presentation
- vii. Previewing and printing a presentation

### LEARNING OBJECTIVES

1. Be able to identify the features of presentation application program
2. Be able to develop and format simple presentations
3. Be able to identify the general features and make use them for a multimedia applications

### LEARNING OUTCOMES

At the end of the lessons, students will be able to ...

1. identify the different part of presentation
2. create, save, open and close a presentation.
3. enter text and numbers.
4. format slides.
5. switch between open presentation.
6. make use some interesting elements or features in a multimedia presentation: video, sound and animation.
7. hyperlink slides to other slides, other presentation files or different format files and a website. (Appendix 6)

### SUGGESTED LEARNING ACTIVITIES / METHODS

1. Hands-on:

#### Basic

- Exercise 1: Create a presentation slides (How to reduce stress).

#### Intermediate

- Exercise 2: Open a presentation file and
  - § incorporate sound or video and animated images.
  - § incorporate a recorded voice into a presentation file.
  - § hyperlink slides.

## RESOURCES

B8. Suhaili, 2008, Step By Step Power Point 2003, CDD

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## 5. PUBLISHER

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- i. Introduction to publisher application program
- ii. Using its templates
- iii. Producing and manipulating data
- iv. Previewing and manipulating data
- v. Previewing and printing document

### LEARNING OBJECTIVES

1. Be able to identify the features of publisher application program.
2. Be able to create a publication using pre-designed layout.
3. Be able to import images from Clip-art or file and incorporate them into the design.

### LEARNING OUTCOMES

At the end of the lessons, students will be able to ...

1. identify the different part of publications design list.
2. create, save, open and close any publishing application. (e.g. MS Publisher)
3. save file with a different name, type and in a different folder.
4. import pictures from Clip-art or file.
5. create different designs using the pre-designed layouts and graphics. (Appendix 7)

### SUGGESTED LEARNING ACTIVITIES / METHODS

1. Hands-on:

#### Basic

- Exercise 1: To create a Business Card.

#### Intermediate

- Exercise 2 : To produce a birthday card, award certificate, banner, brochure etc.

### RESOURCES

B9. Suhaili, 2008, Step By Step Publisher 2003, CDD

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## 5. DATABASE

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- i. Introduction to database application program
- ii. Creating table
- iii. Entering and editing data
- iv. Changing data
- v. Changing column
- vi. Adding and deleting a record and field
- vii. Rearranging fields and sorting records
- viii. Filtering data
- ix. Creating a form
- x. Changing view of table

### LEARNING OBJECTIVES

1. Be able to identify the features of database application program.
2. Be able to create a simple database.
3. Be able to edit and format a database structure and setting up a primary key.
4. Be able to show ability to edit data and column width.
5. Be able to design a form and a report using wizard features. (Appendix 8)

### LEARNING OUTCOMES

At the end of the lessons, students will be able to ...

1. create, save, open and close database file.
2. type, edit and format the database structure.
3. print out the form and report.

### SUGGESTED LEARNING ACTIVITIES / METHODS

1. Hands-on: To produce a form  
Basic
  - Exercise 1: Motor Vehicle Clients
  - Exercise 2: Astro Clients

### RESOURCES

B10. Suhaili, 2008, Step By Step Access 2003, CDD

APPENDIX 1  
Survey Form

1. What is the brand name of your computer?

- Acer
- Compaq
- Sony

Dell  
Toshiba  
Others, please specify \_\_\_\_\_

2. What is the window used?

- Windows 98
- Windows ME
- Windows XP Home Edition
- Windows XP Professional Edition

Windows Vista  
MAC OS  
Others, please specify \_\_\_\_\_

3. Are the following devices available in your computer?

- Floppy disk Drive
- CDRM drive
- DVDROM drive

Card reader  
Others, please specify \_\_\_\_\_

4. Have you ever used the following applications?

(you may tick more than one)

- Paint
- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint

Microsoft Publisher  
Print Artist  
Others, please specify \_\_\_\_\_

5. How many bytes does the computer have?

\_\_\_\_\_ Gigabytes / Terabytes

6. What is the size of the RAM?

\_\_\_\_\_ Megabytes / Gigabytes

7. Have you heard and use the following computer accessories/peripherals?

- Scanner
- Microphone
- Speaker
- Digital camera
- Printer
- Others, please specify \_\_\_\_\_

APPENDIX 2

SUGGESTED CHECK LIST ON MICROSOFT WORD USAGE:

Suggested tasks for hands-on activities:		Tick here	
		Able	Unable
Create a new document			
	open a word processing application		
	save documents with a different name and in a different folder		
	blocking text: cut, copy and paste command		
Character formatting tasks			
	font size & types		
	font styles : bold, italic, underline, subscript & superscript		
	Font colour		
Paragraph formatting tasks			
	text alignment : left, right, justified and centered		
	line spacing: single, double and multiple spacing		
Editing tools			
	Page breaks		
	Page numbering		
	Headers and footers		
Language tools			
	Spell check		
Insert pictures			
	Insert pictures from the clip arts		
	Insert pictures from files		
Printing hard copies			
	document orientation: landscape and portrait		
Designing a table			
	specify the rows and columns		
	enter data in the table		
	insert new row or column		
	merge a range of cells		
	delete extra column and row.		
	modify column width and row height		

APPENDIX 3

SUGGESTED CHECK LIST ON SPREADSHEET PACKAGE USAGE:

Suggested check list for hands-on activities:		Tick here	
		Able	Unable
Open, create, save and close workbooks			
	open a spreadsheet application.		
	entering data items: text; numeric values; formulas / function and date/time.		
	save a workbook to a location on a drive.		
	save a workbook using a different name or file type.		
Enter text and numbers			
	select cells and enter data		
	change, copy, move and delete cell entry		
	enter numbers as labels or value		
	Autofill		
Select appropriate range of cells manipulation			
	select a cell, row and column		
	select entire worksheet.		
Cell Formatting tasks			
	Adjust standard column width and row height		
	Adjust text alignment and orientation		
	Use font type : bold, underline and italic		
	Auto-formatting		
Insert and modify arithmetic formulas			
	addition, subtraction, multiplication and division		
	SUM, AVERAGE, MINIMUM, MAXIMUM, COUNTS AND AUTOSUM		
Create and handle charts			
	create a bar chart		
	create a different types of charts		
	change and add a title, legend, axis(x,y) and value		
Page settings and printing hard copies.			
	print a worksheet		
	print a chart		
	worksheet orientation (portrait and landscape)		
	creating headers and footers		
	Print area : selection, active sheet, entire workbook, selected chart		

APPENDIX 4

SUGGESTED CHECKLIST ON PRESENTATION APPLICATION PACKAGES.

Suggested check list for hands-on activities		Tick Here	
		Able	Unable
Start creating			
	open, editing, close and save a presentation application.		
	create a presentation by using slides.		
	save a file		
Formatting text			
	use bold, underline, italic text		
	text alignments: left, right and centre		
Format the paragraph and slides			
	use bulleted and numbered point		
Using slide designs			
	design templates		
	color scheme		
	animation scheme		
Other features / elements to be incorporated			
	clip arts and word art and animation or animated clip art		
	sound or music		

APPENDIX 5

SUGGESTED CHECK LIST ON MICROSOFT PUBLISHER USAGE:

Suggested check list for hands-on activities		Tick here	
		Able	Unable
Creating a new file:			
	open an application		
	save graphics with a different name and in a different folder		
Inserting Pictures			
Designing and formatting			
	create borders		
	font scheme		
	color scheme		
	format text		
	import pictures		
Printing the design:			
	specifying page setup e.g. Publication type, paper orientation, paper size		
	number of copies		

APPENDIX 6

**SUGGESTED CHECK LIST ON CREATING A DATABASE:**

TASKS	SUGGESTED TASKS AND DIRECTION OF ACTIVITIES	Tick here	
		Able	Unable
Create database	Open and close database		
	Save it		
	Close the database		
Creating A Table Using Database View	Create a table		
	Enter data		
	Change column width		
	Edit data		
	Find data		
	Add and delete a record		
	Add and delete a field		
	Rearrange fields		
	Sort Records		
	Filter data by selection		
Change a field's data type			
Creating A Form Using Form View	Create a form		
	Find data in the form		

## REFERENCES

- B1. Paul McFedries , 2007, Teach Yourself Visually COMPUTERS(5<sup>th</sup> edition), Wiley Publishing, Inc (ISBN: 978-0-470-16878-3)
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- B5. Suhaili, 2008, Direktori Permainan Internet Untul Kanak-kanan(Online Games For Children), CDD
- B6. Suhaili, 2008, Step By Step Word 2003, CDD
- B7. Suhaili, 2008, Step By Step Excel 2003, CDD
- B8. Suhaili, 2008, Step By Step Power Point 2003, CDD
- B9. Suhaili, 2008, Step By Step Publisher 2003, CDD
- B10. Suhaili, 2008, Step By Step Access 2003, CDD