AiTLE + HKACE : Announcement of “Through-trained Teaching Schedule of Computer Subject for Primary & Junior Secondary"

Drafting of

Through-Trained Teaching Schedule

for

Computer Subject

of

Primary & Junior Secondary

Background

- Overlapping of content in Primary & Junior Sec
  - Waste learning time
  - Decrease learning motivation
- Great difference in content amony Primary Schools
  - Great Learning Diversities

Background (Cont'd)

- Content "seems easy" from Management point of view
  - Making serious "Part-Time" teaching
    - Lack of Professional development need
    - Lower the teaching quality

Understand

- EDB Curriculum
  - Provision of framework
  - Define learning targets
  - Will not and should not down to teaching schedule level
  - Related to resources provision to school
  - Need time & a series of procedure to follow for every update

Our action

- Draft
- A **Through-trained**
  - P.1 to S.3
- **Teaching Schedule**
  - Under EDB existing curriculum requirement and framework
- For **Computer Subject**
- Of **Primary & Junior Secondary**

Our works

- Steps
  - Define “learning objects”
  - Allocate “learning objects”

Define “learning objects”

- Firstly
  - Define we should have “ASK” involved in the Teaching Schedule
    - A = Attitude
    - S = Skill
    - K = Knowledge

Drafting Through-trained Teaching Schedule for Primary & Junior Sec Computer Subject

[[[click on the link, and press ALT-ENTER]]]

A. Attitude
B. Skill
C. Knowledge

Define “learning objects”

- Then
  - For @ domain, we define the topics within that domain

Attitude

[[[click on the link, and press ALT-ENTER]]]

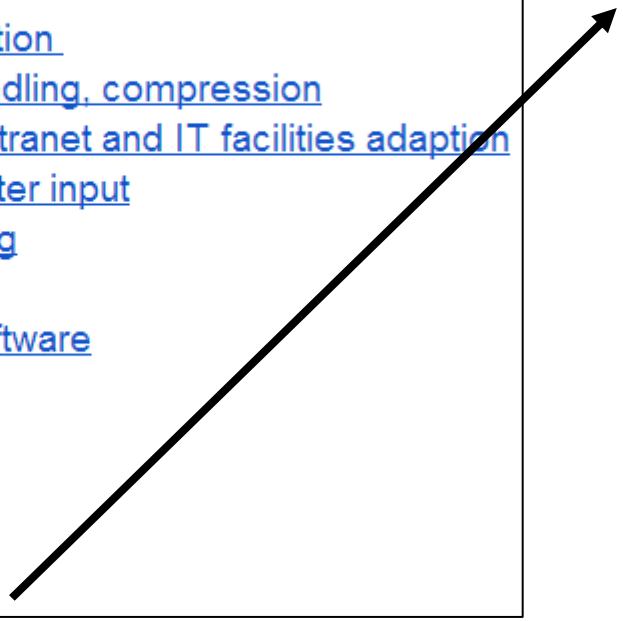
- Social networking website
- Copyright, CC, plagiarism
- Cyberbullying
- Internet addict
- Privacy
- Work & Health issue
- Netiquette
- Green IT
- Digital Divide → ICT
- Application of IT to your daily life
  - Good use
    - like Info Search, services, save time and resources, better data collection

Define “learning objects”

- Then
  - For @ domain, we define the topics within that domain

Skill

- Switch on and off computer
- Keyboard skill
- Basic OS operation
- File & folder handling, compression
- School based intranet and IT facilities adaption
- Chinese Character input
- Word processing
- Spreadsheet
- Presentation software
- Databases
- Image editing
- Video editing
- Audio editing
- Web authoring



- Animation production
- Programming
- Information search, analysis
- Webmail
- Wireless connection (WiFi)
- Wireless security implementation
- Cloud services
- Utility Programs
- Security issue
- Ability to use different mobile devices

Define “learning objects”

- Then
  - For @ domain, we define the topics within that domain

Knowledge

- Information processing and presentation
- Computer system
- Networking & Internet Application
- Programming
- Social Implication

Define “learning objects”

- Lastly,
  - For @ topic, we define the learning objects

Cyberbullying

- Basic Idea of Cyberbullying
- Example of Cyberbullying
  - In Social Media
  - In Gaming
  - In forum/video sharing site by commenting
- Consequence of Cyberbullying
- Prevention from Cyberbullying

- Signs of Cyberbullying (non Pri)
  - Signs a Child is Being Bullied
  - Signs a Child is Bullying Others

Computer Systems

- Basic Computer Component
  - Hardware
    - Case
    - Keyboard
    - Mouse
    - Monitor
    - Speakers
    - Printer
  - Software
    - OS
      - File Manager
    - Antivirus
    - Application Software
      - Office Suite
      - Browser
- More about Computer Component
  - Inside System Case

Define “learning objects”

- Lastly,
  - For @ topic, we define the learning objects

Word Processing

- Function of Word
  - When use word
- Word Interface
  - Input text to word
  - Know toolbar of word
- Formatting
  - Font type, size, face, color
  - Paragraph alignment
  - Indent
  - Bullet and numbering
  - Border and pattern
  - Line spacing
- Word Art
- Table
  - Row height and column width
  - merge and split cell(s)

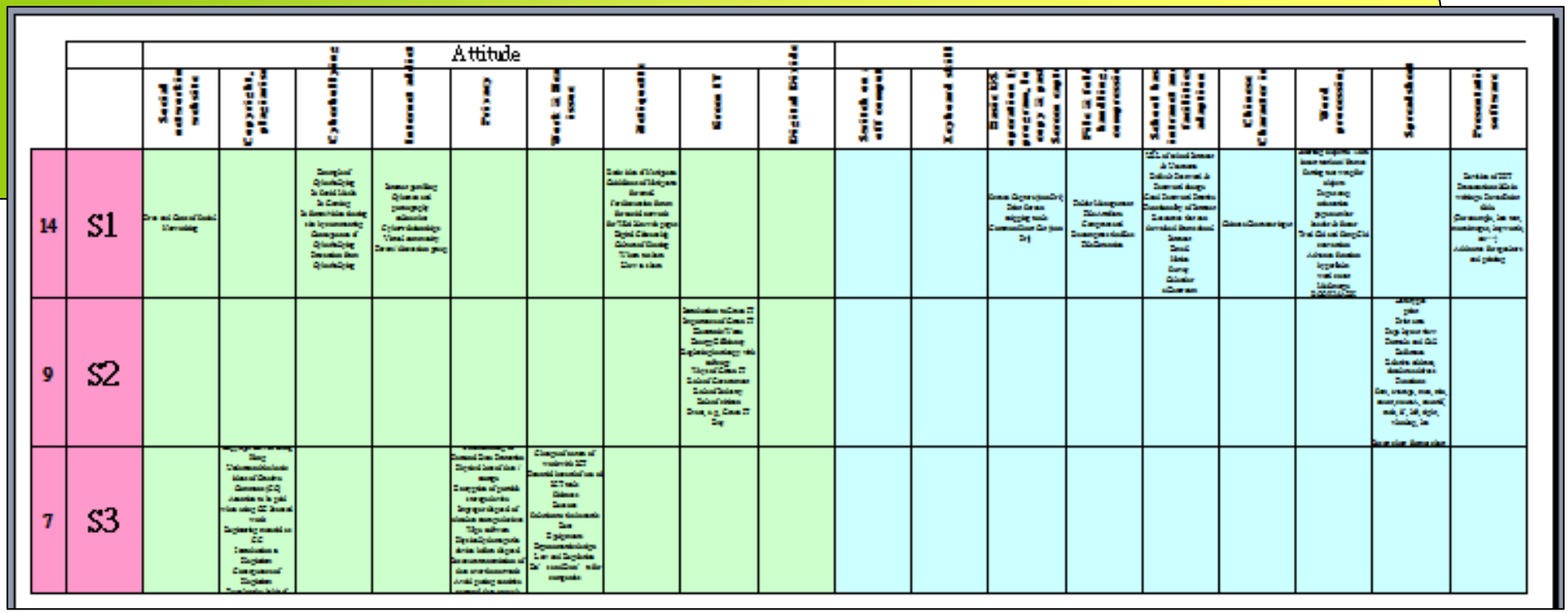
Programming

- Introduction to Algorithm Design
- Identifying Inputs and Outputs of a Problem
- Basics of Constants and Variables
- Selection of Appropriate Data Types
- Input Statements, Output
- Statements and Assignment Statements
- Calculation
- Basic Control Structures
  - Sequence
  - Selection
  - Iteration
- Tracing and Testing Algorithms

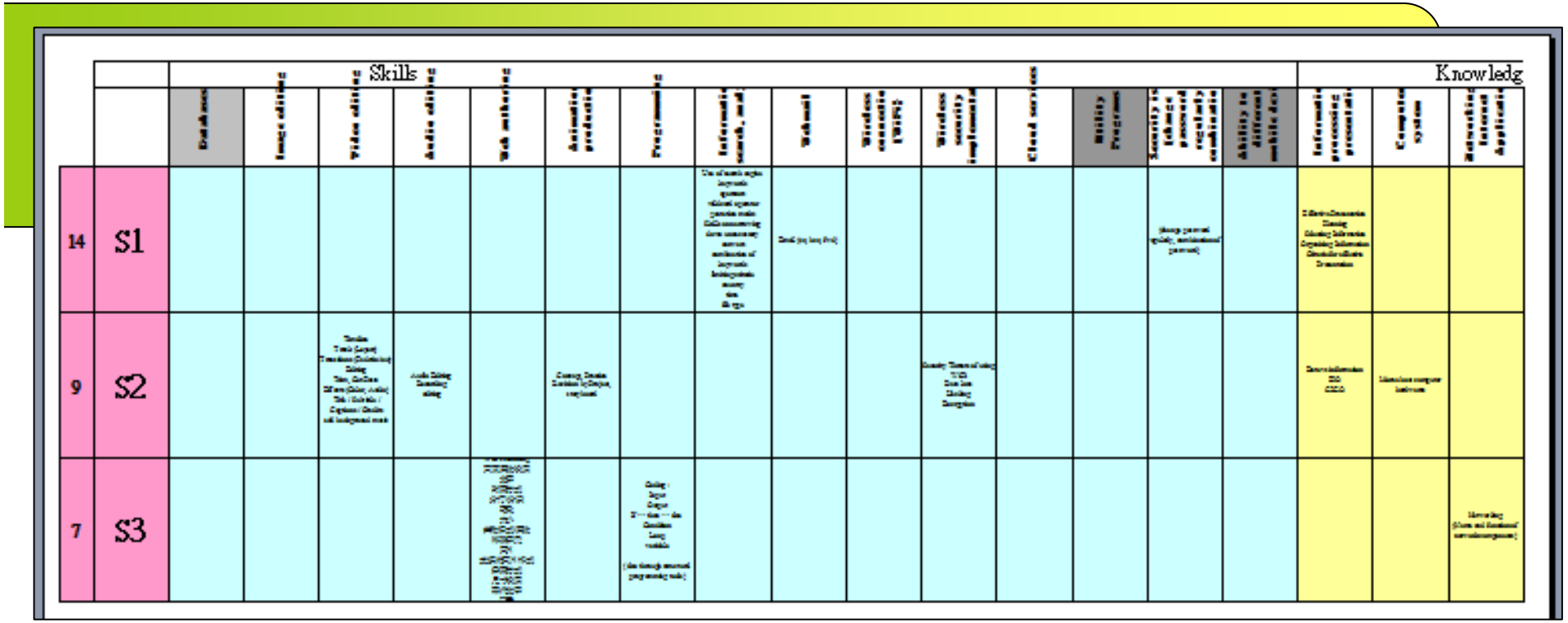
Allocate “learning objects”

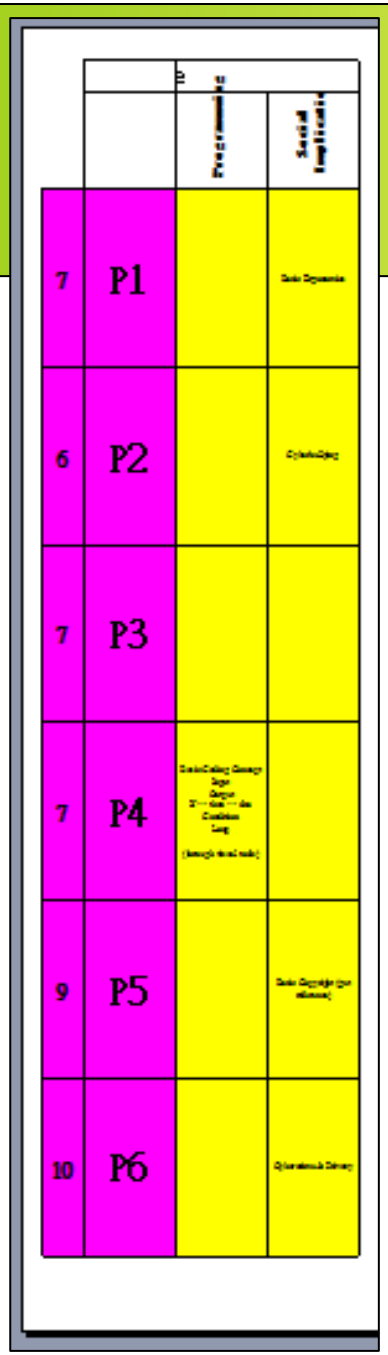
- After defining all “Learning Objects”, we allocate the “Learing Objects to different year level (from P.1 to S.5)

		Attitude									Skill								
		Social networking website	Copyright, plagiarism	Cyberbullying	Internet ethics	Privacy	Work in Res issue	Antiquity	Green IT	Digital Divide	Switch on, off computer	Keyboard skill	Basic OS operations (program, to copy & pas Screen capt	File & fold handling, compressi	School bas internet an limitation adaptive	Chinese Character in	Word processing	Spreadsheet	Presentati software
7	P1						Ergonomic (posture, distance)				Turn on a computer Turn off a computer Login Logout Suspension of typing workflow on Shut down a computer Progressive of closing down a computer Restarting a computer	Elementary Keyboard skill	Using Windows Explorer (Programs) Use of Desktop Log Off Shutdown Restart Control Panel Create a Folder/ Icons Maximize/ Restore Icons Minimize Icons Resizing Windows Organizing Windows		Log on to Windows Switch User and Log Off Internet Explorer Email Media Player Calculator eLearning				
6	P2												Common Icons Copy & Paste Save Special Undo and redo Email Attaches Printing	Login file					
7	P3											Intermediate Keyboard Skill	File handling	File and folder handling Folder Management						
7	P4					Introduction to Privacy Strength of Privacy Protect personal Privacy										Chinese Character input				
9	P5	Characteristics of Social Networking Types of Social Networking Communication Etiq Video Pros and Cons of Social Networking	Introduction to Intellectual Property Forms of Intellectual Property Rights		Address online communication									Knowledge Base	Internet Security Settings Pop Up Blocker Phishing Cookies Content Advisor			Introduction to Spreadsheet Entry options Basic Operations Formatting Insert, delete Functions Sort, arrange Printing Charts and 2D	
10	P6			Basic Idea of Cyberbullying Examples of Cyberbullying Its Social Effects Its Causes Its Prevention strategies in Hong Kong Consequences of Cyberbullying Prevention from Cyberbullying				Language The psychology for communicate email using local language												

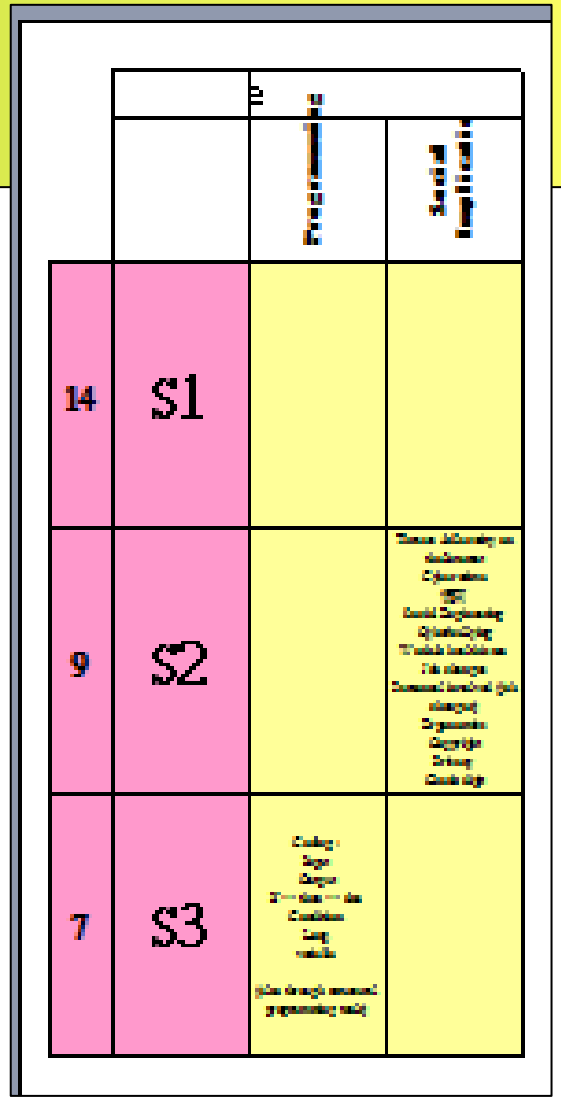

Attitude

		Skills															Knowledg		
		Draft skills	Image editing	Video editing	Audio editing	Web authoring	Animation production	Programming	Information search, and	Network	Wireless connectio (WiFi)	Wireless security implementa	Cloud services	Utility Programs	Security to (choose password regularly combinatio	Ability to different mobile dev	Information processing presentati	Computer system	Networking Internet Applicati
7	P1																	Basic Computer Structure	
6	P2		Download Image Editing Software. Then a Image Editing software. Know different types of Image Editing software. Know different types of Image file type. Attributes an image can contain. Understanding the function of colour. Image editing skills (cont)						The of search engine keywords	Edexcel and Computer (ICT) Eng Digital Architecture									
7	P3						Different types of animation. Drawing Basic (Tweens) Drawing (Shapes) (Shape Motion / Shapes) – Stick Guide Theory Characteristics Background of animations							Virtual Machine Cloud Services Office 365 One note Google Docs online Google Map				Know Working Web Browser		
7	P4						Timeline Layers Zoom, Keyframe, Blank Keyframe Eye Dropper Tool Onion Skin Images, audio and graphics Shape Layers Breaking apart Combination	Basic Coding Concept Input Output If — then — else Condition Loop (through visual code)										Basic Computer Software (OS)	
9	P5		Image editing skills Changing image size, resolution dpi Cropping Dynamic Shape tool Magic Wand Add new image								Fibre to the (FTTx) Ethernet connection to (FTTx) (Fibre ONT), router (e.g. BT) Type: FTTC Down: (FTTx)									
10	P6			Timeline Tween (Shape) Tween Scale (Motion) Tween Editing Skin, Onion Skin Effects (Color, Audio) Text / Subtitle / Captions / Creating soft background music		HTML5 coding Widgets		Basic Coding (through Game making)	Analysing the reliability of the Authority of the publisher Coverage (ICT) Viewpoint & Objectivity Includes essential information Subheadings Does it rely on enough essential information	Explain a network server				Know Online Survey					Basic concept of HTML


Skills
Knowledg
14
S1
9
S2
7
S3



7	P1		
6	P2		
7	P3		
7	P4		
9	P5		
10	P6		



14	S1		
9	S2		
7	S3		

Spreadsheet as example

P5	Introduction to Spreadsheets Row, column Basic Operations Formatting Insert, delete Functions Sum, average Creating Charts AutoFill
S2	Data types print Print area Page layout view Formula and Cell Reference Relative address, absolute address Functions Sum, average, max, min, count, countA, countif, rank, if , left, right, vlookup, len Insert chart, format chart, insert chart to power point Data Manipulation Techniques Search, replace, filter, sorting, conditional formatting

Points to note

- This is only the first draft, many improvement is need, like
  - Echo number of teaching hour (lesson)
  - Meaning of some terms
    - scope / depth
  - Advancement of technology
    - Robotic
    - 3D printing
    - raspberry pi, arduino …

Points to note

- What we listed out are point-form
  - Not how to teach
  - When teach, can do integration
    - Like if in a certain year-level, need to teach
      - Internet Searching Skills
      - Presentation Software
      - Cyberbullying
    - Can do in this way
      - Student doing research of Cyberbullying
      - through internet
      - And do a presentation afterward