

IB DP IB1 CS\_KAA HL (IB1)

## Summary

### Unit 6 Resource management

| Subject          | Year | Start date    | Duration               |
|------------------|------|---------------|------------------------|
| Computer Science | IB1  | Week 1, April | <b>5 weeks</b> 8 hours |

Course Part

## Curriculum

### Aims

Provide opportunities for study and creativity within a global context that will stimulate and challenge students developing the skills necessary for independent and lifelong learning

Raise awareness of the moral, ethical, social, economic and environmental implications of using science and technology

Encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method

### Objectives

#### **Know and understand**

methods of presenting information

#### **Apply and use**

terminology to communicate effectively

#### **Construct, analyse, evaluate and formulate**

appropriate techniques within a specified solution

### Syllabus Content

#### **Additional higher level**

Topic 6 - Resource management

6.1 Resource management

System resources

6.1.1 Identify the resources that need to be managed within a computer system.

6.1.2 Evaluate the resources available in a variety of computer systems.

6.1.3 Identify the limitations of a range of resources in a specified computer system.

6.1.4 Describe the possible problems resulting from the limitations in the resources in a computer system.

Role of the operating system

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- 6.1.5 Explain the role of the operating system in terms of managing memory, peripherals and hardware interfaces
- 6.1.7 Outline OS resource management techniques: scheduling, policies, multitasking, virtual memory, paging, interrupt, polling.
- 6.1.8 Discuss the advantages of producing a dedicated operating system for a device.
- 6.1.9 Outline how an operating system hides the complexity of the hardware from users and applications.

## ATL Skills

### Approaches to Learning



#### Thinking

- In this unit, we will
  - ask open questions
  - help students to make their thinking more visible (for example, by using a strategy such as a thinking routine)
  - ask questions that required the use of knowledge from a different subject from the one you are teaching



#### Communication

- In this unit, we will
  - have students give an oral presentation without reading from their notes
  - ask students to monitor and check the quality of their writing
  - assess or give feedback on speaking or writing concisely
  - ask students to formulate arguments clearly and coherently



#### Research

- In this unit, we will
  - assign a task that required students to use the library
  - provide opportunities for students to reflect on how they determine the quality of a source, or analyse contradictory sources
  - require students to record their search for sources in steps (types of search engines, search terms, and so on)



## Developing IB Learners

### Learner Profile



Inquirers

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Thinkers



Balanced



## Assessment



### Assessment criteria

#### External Assessment

Paper 1

A: Short answer questions

B: Structured questions

Description