CODING & ROBOTICS PRIMARY SCHOOL OLYMPIADS:

GUIDE

GRADES 4 - 7

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GRADE 6

Coding and Robotics

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A. Paper structure for the olympiad

Multiple Choice question, true or false and computational questions.

B. How does it align with the curriculum?

CAPS topics include:

- Internet and E-Communications
- Application Skills
- Algorithms and Coding
- Robotics

C. How it goes beyond?

The olympiad includes some general knowledge questions based on the practical implementation of programming and robots in everyday life.

D. Sample questions

There are three types of questions, they are namely multiple choice, true or false questions and computational type questions.

1. Multiple Choice Questions

1. Which of the following statements describe operators. (1)

    A. Operators are people who run the code programmed by the programmers.
    B. In coding, operators are symbols or keywords that perform various operations on one or more values or expressions.
    C. Sorting and searching algorithms.
    D. Kernel-level programming.

2. What event block in Scratch is triggered when the green flag is clicked to start the program?

    A. When key pressed
    B. When backdrop switches to [Backdrop].
    C. When sprite clicked.
    D. When green flag clicked.

3. Which of the following are functional uses for humidity sensors? (1)

    A. HVAC systems: Humidity sensors are used in heating, ventilation, and air conditioning systems.
    B. Industrial settings: Humidity sensors are used in industrial settings to monitor humidity levels in manufacturing processes.
    C. Colour systems. Humidity sensors are used to detect and define colour ranges.

2. True or false

1. Control Systems: Control systems are used to regulate the behavior of a robot. (1)
    A. True
    B. False

2. Actuators: Actuators are devices that convert electrical energy into mechanical energy. In robotics, actuators are used to control the movement of the robot's joints and limbs. (1)

    A. True
    B. False

3. In robotics, sensors are used to detect obstacles, measure distance and speed, and gather other data that is used to control the robot. (1)

   A. True

   B. False

3. Computational questions

go to x: (0) y: (0)	wait (2) seconds
go to x: (50) y: (50)	when flag clicked
turn right (15) degrees	wait (2) seconds

1. Using the lines above. Write a line of code to create a short animation.(4)

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