

Name of Quality Education Fund Thematic Network (QTN)

Facilitating STEM Education in Primary and Secondary Schools with Microcontroller

1. QTN Co-ordinator

HKSKH Bishop Hall Secondary School

2. Address of QTN Co-ordinator

82 Hiu Kwong Street, Sau Mau Ping, Kowloon

3. Beneficiaries

6 Primary Schools

4. Objective(s)

This QTN aims at :

- Promote STEM education, use micro:bit as the carrier of coding and design thinking education; and
- Form a professional exchange network among participating schools, in exploring ways to promote STEM education, through collaborative lesson planning, workshops, educational exchange tours, visits, student competitions, etc.

5. Foci of Support

- Curriculum :
 - micro:bit coding principles, the use of various sensors, basic principles and application of Internet of Things (IoT), the use of laser cutting and 3D printing technologies for product design;
- Classroom teaching :
 - Assist participating schools in course development, through course planning meetings, joint lesson preparation and onsite school support;
- Learning tasks and materials :
 - Assist core schools in developing a set of school-based teaching materials.

6. Mode of Support

- Sharing of the following key messages through workshops,

according to the developmental needs of the core schools :

- Revisit micro:bit coding principles and the use of various sensors, sharing past design works;
 - Learn the basic principles and application of the IoT;
 - Learn to use related product design technologies, including laser cutting and 3D printing; and
 - Strengthen the use of design thinking, in collaboration with technologies learned, designing innovate products for smart cities
- Facilitating exchange and sharing of experience through workshops, talks, and/or school visits; and
 - Arranging STEM educational exchange tours: allowing participants to take references from the merits of STEM education in foreign countries to apply in own classrooms, through visiting iconic STEM schools in Singapore

7. Points to be noted by Participating Schools

- Each core school should send 3-5 teachers to participate in the programme, take part in teacher workshops and course planning meetings;
- Attend various programme activities, including collaborative lesson planning, competitions, corporate visits and STEM educational exchange tours; and
- Attend two Executive Committee (EC) meetings and an annual dissemination seminar to share the good practices derived and challenges faced.

8. Enquiries

Contact person: Mr KAN Ka Hei / Mr LEUNG Chi Wan Leslie

Telephone number: 2347 9224