Subject: Proposal for Allocation of a One-off Grant for Supporting the Introduction of Primary Science

Introduction:

EDB has provided the "Grant on Introduction of Primary Science", a one-off grant of $350,000, for primary schools under the Direct Subsidy Scheme (DSS) offering local primary curriculum to support the implementation of Primary Science starting from the 2025/26 school year.

The ambit of the "Grant on Introduction of Primary Science" includes:

- procurement of relevant L&T resources;
- purchasing teaching aids and equipment related to the science subject;
- carrying out minor renovations or purchasing furniture to optimise existing General Studies room / classroom facilities;
- as teacher relief grant to allow current teachers to participate in science or STEAM-related training; and
- recruiting teaching assistant(s) to assist teachers in the preparation work for the introduction of Primary Science.

Proposal Details:

This proposal suggests allocating a portion of the one-off grant towards the hiring of a Teaching Assistant and the purchase of essential teaching materials to enhance the quality of education at our school.

1. Hiring a Teaching Assistant:

- **Cost:** Approximately 240,000 HKD
- **Justification:** After consulting with Ms. Ivy Chan from the Personnel Office, it is determined that the monthly salary for a Teaching Assistant is between **18,000 – 20,000 HKD**. Based on this, hiring a Teaching Assistant for one year would cost approximately 216,000 – 240,000 HKD.
- The Teaching Assistant will play a crucial role in supporting our teachers by assisting in the preparation of teaching materials and setting up inquiry-based learning activities and STEAM projects. This additional support will ensure that teachers can focus more on delivering quality education to our students.

2. Purchase of Teaching Materials:

- **Lego Education Science Package:** 60,000 HKD
- **Lab Equipment:** 20,000 HKD
- **Total Cost:** 80,000 HKD

- **Justification:** The Lego Education Science Package contains in-class hand-on activities which align with the new primary science curriculum. It can arouse students' interest and engagement in science lessons. It also fosters the development of science inquiry skills and engineering design process skills in students through the following key aspects:

  1. **Define the Problem**: Students begin by identifying and defining specific real-world challenges or problems that need to be solved, laying the foundation for the engineering design process.

2. **Ideation and Brainstorming**: Students are prompted to brainstorm multiple solutions and approaches, encouraging creativity and innovative thinking as they explore different design possibilities.

3. **Prototype Development**: Using LEGO components, students build prototypes of their designs, allowing them to apply theoretical concepts in a tangible way. LEGO pieces are tailored to the developmental needs of young learners. Their size, shape, and simplicity make them safe and easy to handle, avoiding the frustration that can come with cutting, folding, or gluing different materials. LEGO kits often include specialized parts such as gears, axles, and motors. These components make it possible for students to incorporate moving parts or mechanical functions into their prototypes, which would be much harder to achieve with other materials.

4. **Testing and Evaluation**: The activities include opportunities for students to test their prototypes, collect data, and evaluate the effectiveness of their designs. This step reinforces the importance of experimentation.

5. **Iterative Improvement**: Students are encouraged to refine their designs based on test results, fostering a mindset of continuous improvement and adaptation.

6. **Collaboration and Communication**: Many activities are designed for teamwork, promoting collaboration and communication skills as students share ideas, provide feedback, and work together to enhance their designs.

7. **Reflection**: After completing the tasks, students reflect on their process, discussing what worked, what didn't, and how their designs could be further improved, solidifying their understanding of the engineering design process.

8. **5E model**: The activities were designed using the 5E model - Engage, Explore, Explain, Elaborate, and Evaluate—provides a structured framework for inquiry-based learning which matches with EDB curriculum guideline. Teachers can create a dynamic learning environment that encourages students to take ownership of their learning through inquiry.

- **Justification for Lab Equipment:** The lab equipment will be selected based on recommendations from EDB to ensure alignment with the requirements of the Primary Science curriculum. We will carefully evaluate and choose suitable tools that best meet the needs of our students and teachers, ensuring a high-quality learning environment.

Budget Allocation Breakdown:

- Hiring a Teaching Assistant: 240,000 HKD
- Lego Education Science Package: 60,000 HKD
- Lab Equipment: 20,000 HKD
- **Total Budget Required: 320,000 HKD**

Benefits:

- Enhanced hands-on learning opportunities through interactive teaching materials.
- Boosted engagement and interest in science subjects among students.
- Developed students' science inquiry skills and engineering design process skills.
- Efficient utilization of resources to elevate the quality of education provided at our school.