

**ST. LOUIS SCHOOL ANNUAL PLAN 2019-2020****SUBJECT / TEAM****BIOLOGY****(I) Aims**

- (a) To boost the learning effectiveness and academic performance of students through staged self-directed learning (SSDL)
- (b) To cultivate student's personal growth in particular in the area of self-management and value education.

**(II) Situational Analysis****(a) Strengths**

- 1. Students are provided with various opportunities to learn.
- 2. Coordination within the panel is good
- 3. Teachers are well equipped with their subject knowledge.
- 4. The relationship between students and teachers is good.
- 5. The management of the laboratory is good.

**(b) Weakness**

- 1. Participation of students in class is not adequate.
- 2. The diversified needs of students are yet to be better catered.

**(c) Opportunities**

- 1. Our team members are eager to contribute in the development of students both academically and interpersonally.
- 2. Student-teacher interaction and student-student interaction are strengthened via collaborative teaching and outdoor bio-related activities.

**(d) Threats**

- 1. There are a number of students who are less capable of maintaining self-discipline, making classroom activities difficult.
- 2. There are a number of students who are less willing to learn.

**(III) Highlight**

- (a) Making a skeleton model
- (b) Ecosphere competition
- (c) Birdwatching competition

**(IV) Short Term Direction**

- (a) Students should learn to identify different types of variables in scientific investigations.

**(V) Areas of Concern****1. Students as visionary leaders possessing enhanced thinking skills, especially creativity and problem solving**

| <b>Targets<br/>(from SDP/ASP)</b>                | <b>Strategies</b>  | <b>Success Criteria</b>  | <b>Methods of<br/>Evaluation</b> | <b>Time Scale</b> | <b>People<br/>in<br/>charge</b> | <b>Resources Required</b>                             |
|--|--|--|----------------------------------|-------------------|---------------------------------|---|
| Students have solid and extensive knowledge base | <u>SLS Biology Museum A.Bee workshop</u><br>Offer workshop to S.4 & S.5 Students to be the museum tour guide.<br>Arrange S.1 & S.2 student to visit museum during science lesson.  | 1. Records of CLP are completed.   | CLP records                      | Whole year        | CCKP<br>YHP                     | 1. Teaching materials<br>2. Video<br>3. Worksheet     |
| Students have solid and extensive knowledge base | <u>Hands-On Biotechnology Techniques</u><br>Provide students opportunities to carry out various biotechnology techniques like DNA replication, gel electrophoresis and amplifying DNA, aiming at increasing students' exposure to modern genetic engineering technology and further raising their interest in biology. | 1. Peer lesson observation is carried out.<br>2. Records of CLP are completed. |                                  | Whole year        | CCKP                            | 1. Gel tank<br>2. PCR<br>3. Reagent kits<br>4. Tablet |

|   |   |                                  |                                 |                            |             |  |
|---|---|----------------------------------|---------------------------------|----------------------------|-------------|--|
| Students have solid and extensive knowledge base  | <u>Making Specimen</u><br>Provide students opportunities to make specimen, which develops them the skills in mastering different tools in dissecting animals, the knowledge of animal structures, and the interest in studying biology  |                                  |                                 | Whole year                 | CCKP        |  |
| Teachers are able to master new technologies and effective ways to help students acquire essential knowledge and skills | <u>Common Lesson Preparation</u><br>Through the common lesson preparation, teachers can work together to design and devise diversified teaching strategies to promote student's interest in learning and cater for their varied abilities, to devise appropriate leaning activities and assignments to enhance students' thinking skills. | 1. Records of CLP are completed. | 1. CLP records                  | Whole year                 | CCKP<br>YHP | Lesson plan  |
| Students have solid and extensive knowledge base  | <u>Biology-related Activities</u><br>Encourage students to join more biology related programme like biology field trip, bird-watching   | 1. To meet the participant quota | 1. Record of the scheme of work | throughout the school year | CCKP        | Encourage students to join more biology related programme like biology field trip, bird-watching |

## 2. Students as visionary leaders with necessary positive values including self-discipline and respect inculcated

| <b>Targets<br/>(from SDP/ASP)</b>         | <b>Strategies</b>   | <b>Success Criteria</b>  | <b>Methods of Evaluation</b> | <b>Time Scale</b> | <b>People in charge</b> | <b>Resources Required</b>                       |
|---|---|--|------------------------------|-------------------|-------------------------|---|
| Student could listen and observe actively | <u>Self-constructive Teaching Strategies</u><br>Arrange in class group and presentation, which could improve and enhance students' ability in identifying and highlighting keywords in textbook. Meanwhile teacher's feedback could correct common misconception. | 1. Peer lesson observation is carried out.<br>2. Records of CLP are completed. | 1. CLP records               | Whole year        | CCKP                    | A1 size paper, Permanent markers, and blue tape |

|   |  |                                  |                |            |             |  |
|---|--|----------------------------------|----------------|------------|-------------|--|
| Student could listen and observe actively | <u>E-learning</u><br>Provide youtube academic programme like "Khan Academy" -<br><a href="https://www.youtube.com/user/khanacademy">https://www.youtube.com/user/khanacademy</a><br>for students to prepare the lesson or to learn the extension on certain topics, which can also enhance their language ability. | 1. Records of CLP are completed. | 1. CLP records | Whole year | CCKP<br>YHP |  |
|---|--|----------------------------------|----------------|------------|-------------|--|

**(VI) Other panel-based / team-based concerns:**

| Targets  | Strategies  | Success Criteria  | Methods of Evaluation  | Time Scale                              | People in charge | Resources Required             |
|--|---|---|--|---|------------------|--------------------------------|
| Students should learn to identify different types of variables in scientific investigations.                             | Identification of variables of the experiments is required.   | 1. A variable table is included in the experiment worksheets.<br>2. Questions on variables will be set in the internal examination papers and the students are considered to have satisfactory performance. | 1. Experiment worksheet<br>2. Relevant examination paper and marker's report | throughout the school year              | CCKP<br>YHP      | Printing                       |
| Teachers are able to master new technologies and effective ways to help students acquire essential knowledge and skills. | Lesson Observation<br>Through peer lesson observation teachers could share among themselves whether class organization and teaching strategies can meet the diverse learning needs of our students. | 1. Peer lesson observation is carried out once a term.<br>2. Records of peer lesson observation are completed.  | Records of peer lesson observation   | once in the school term                 | CCKP<br>YHP      | Lesson plan                    |
| Students have solid and extensive knowledge base   | Remedial Programme<br>Identify less able students to participate in the remedial programme  | 1. More than 60% of the participants attain an attendance   | 1. Observe the students' attendance,   | S4 – 1st term<br>S5 – 1st and 2nd terms | CCKP<br>YHP      | Tutor remuneration<br>Printing |

|  |   |  |  |   |             |                                |
|--|---|--|--|---|-------------|--------------------------------|
|  |   | of 50%.<br>2. Their participation in class and learning attitude is considered as good by the tutors.<br>3. The participants consider the course useful. | participation in class and learning attitude<br>2. Tutors and students involved will be asked to comment on the following aspects of the course: (i) content, (ii) approaches, (iii) time, (iv) arrangement, and (v) others. |   |             |                                |
| Students have solid and extensive knowledge base | Consolidation Programme<br>Identify the average students to participate in the tutorial programme |  |  | S5 – 1st and 2nd terms<br>S6 – 1st term | CCKP<br>YHP | Tutor remuneration<br>Printing |
| Students have solid and extensive knowledge base | Enrichment Programme<br>Identify more able students to participate in the enrichment programme    |  |  | 2nd term                                | CCKP<br>YHP | Tutor remuneration<br>Printing |

**(VII) Provisional Scheme of work**

| Month            | Events  | PIC / VPIC |
|------------------|---|------------|
| <b>Sept 2018</b> | Common lesson preparation (throughout the year) | CCKP       |
|                  | Peer lesson observation (throughout the year)   | CCKP       |
|                  | Biology field trip (24/9)                       | CCKP       |

|                 |  |             |
|-----------------|--|-------------|
| <b>Oct 2018</b> | Making a skeleton model (S4)                 | YHP         |
|                 | Ecosphere competition (S5)                   | CCKP<br>YHP |
|                 | Remedial course (S5)                         | CCKP        |
|                 | Tutorial programme for average students (S6) | CCKP        |
| <b>Nov 2018</b> | Open day                                     | CCKP<br>YHP |
|                 | Remedial course (S5)                         | CCKP        |
|                 | Bird-watching competition / Training         | YHP         |
| <b>Mar 2019</b> | Museum Tour for S.1 and S.2 students         |             |
| <b>Apr 2019</b> | Remedial course (S4, S5)                     | YHP / CCKP  |
|                 | Tutorial programme for average students (S5) | CCKP        |
|                 | Enrichment programme (S5)                    | CCKP / YHP  |
|                 | Bird-watching competition / Training         | YHP         |
| <b>Jul 2019</b> | Ecology tour (S3, S4)                        | CCKP        |
| <b>Aug 2019</b> |  |             |

**(VIII) Budget and Other Resources**

|  | <b>Amount</b> |
|--|---------------|
| <b>EXPENDITURE</b>   |               |
| <b>A. General Panel / Team-based budget</b>                  |               |
| A1. Teaching aids and past examination papers (for teachers) | 4,000.00      |

|   |                  |
|---|------------------|
| A2. Expenditures for practicals, chemicals and apparatus                                  | 10,000.00        |
| A3. Biotechnology equipment including Gel electrophoresis reagent kit + staining solution | 5,000.00         |
| A4. Stationery and photocopying   | 3,000.00         |
| A5. Ecosphere competition   | 2,000.00         |
| A6. Reference Book(s)   | 1,000.00         |
| Sub-total (A) =   | <b>25,000.00</b> |
| <b>B. CEG</b>   |                  |
| B1. Tutors' remuneration  | 14,850.00        |
| Sub-total (B) =   | <b>14,850.00</b> |
| <b>C. Furniture and Equipment (F &amp; E)</b>   |                  |
| C1. Tablet  | 8,000.00         |
| Sub-total (C) =   | <b>8,000.00</b>  |
| <b>D. DLG</b>   |                  |
| Sub-total (D) =   | \$0              |
| <b>E. Reading Grant</b>   |                  |
| E1.   |                  |
| Sub-total (E) =   |                  |
| <b>F. Life Wide Learning Grant (LWLG)</b>   |                  |
| F1. Bird watching event   | 10,000.00        |
| Sub-total (F) =   | <b>10,000.00</b> |
| <b>G. Budget of items using other specific grant from EDB* :</b>                          |                  |
| *Chinese History, NCS or Student Support grant  |                  |

|                           |                            |
|---------------------------|----------------------------|
| G1.                       |                            |
|                           | Sub-total (G) =            |
| <b>H. Other Resources</b> |                            |
| H1.                       |                            |
|                           | Sub-total (H) =            |
|                           | <b>Total Expenditure =</b> |
|                           | <b>\$57,850.00</b>         |

**(IX) Members**

Chan Chun Ket Patrick

Yeung Hon Pan

Mok Mei Yee (laboratory technician)