

Christian Alliance Cheng Wing Gee College

Program Plan 2008/2009

PHYSICS

I. AIMS

1. Enable students to understand the fundamental principles and concepts of Physics and its methodology.
2. Enable students to develop skills relevant to the study of Physics.
3. Enable students to develop positive values and attitudes towards Physics, themselves and others through the study of Physics.
4. Enable students to carry out further studies and embark upon careers in fields related to Physics.

II. SITUATIONAL ANALYSIS

A. Strengths

1. Students in general show great interest in science subjects and can make improvement in understanding the underlying principles after a period of studies.
2. The laboratory is well equipped to facilitate the teaching work and enhance students' learning.
3. Teachers in the panel collaborate well and work together effectively.
4. Teachers in the panel are willing to try new things in teaching and attend relevant courses for professional development.
5. The panel keeps adequate reference materials.
6. F.4E has the academic competition and strike for excellence atmosphere.
7. Teachers in panel keep current marking skills in HKCEE Physics

B. Weaknesses

1. Students vary greatly in their learning attitudes, mathematical skills and language abilities.
2. Low achievers are concentrated in the class F.4D.
3. Low achievers who are incompetent in science subjects are inevitable.
4. F.6 students cannot manage their time of studies well to meet the A-level examination requirement and some students have poor performance in TAS.
5. O-level students are not aware of the urgency of the public examinations. They are passive in learning and their expectations are low.
6. Supplementary lessons of different subjects make it difficult for students to find time to study and review problems.
7. The heavy workload of members in school limits the development and monitoring work of the subject.

III. School Major Concerns for 2008-09

1. To strengthen students' speaking skills in English inside and outside the classroom
2. To foster students skills and attitudes to be life long learners
3. To prepare the school for 334 NSS education

IV. OPERATIONAL STRATEGIES

Task	Description	Expected Outcomes	Success Criteria/ Evaluation Method	Time Scale	Resources Required/ Budget	Person-in-charge
Major Concern 1: To strengthen students' speaking skills in English inside and outside the classroom						
1. Learning through role play	Enhancing students' speaking abilities through role play	Two role plays (one in each term) held for each class to present some Physics concepts	Able to present their own ideas by role play	Sept 08 to June 09	Text books	LMF/ WWM/ LCS
2. Learning through discussion	Enhancing students' speaking abilities through discussion	Two discussions (one in each term) held for each class on current scientific issues	Able to present own ideas publicly after group discussion	Nov 08 & Apr 09	Materials from mass media	LMF/ WWM/ LCS

Major Concern 2: To foster students skills and attitudes to be life long learners							
1.	IT in interactive learning	Using e-platform to assess student progress	Students of F.4 and 5 classes regularly using e-platform for self learning	Students can finish the tasks given and make progress	Sept 08 to June 09	E-class and e-platform from publishers	LMF/ WWM
2.	Investigative Study Learning	Build up students investigative study skill	One investigative study for each group about 5 members for F.3, F.4 and F.6 (e.g. study battery lifetime, study wave speed and projectile motion)	Able to present their investigative study by models, display boards, investigation reports and in-class presentations Projects are marked by peers and teachers according to the marking scheme	Sept 08 to June 09	Library resources, internet information and reference books.	LMF/ WWM
Major Concern 3: To prepare the school for 334 NSS education							
	Staff development	Preparing colleagues for the NSS curriculum	Colleagues are familiar to and know the details and requirement of the NSS curriculum	Each colleague attend at least 3 relevant seminars, workshop or talks	Sept 08 to Aug 09	Training information from EMB or relevant organizations	LMF/ WWM
			Trial run of NSS curriculum	Teacher evaluation and student feedback	Sept 08 to June 09	Materials from EMB or relevant organizations	LMF/ WWM
Others							
1.	IT in teaching	Using IT methodology in complementing strategies of teaching	Teachers make use of different web sites and CD ROM in class teaching	About 50% of teaching time is IT related	Sept 08 to June 09	Materials from publishers and internet, financial support	LMF/ WWM/ LCS
2.	Catering for learning difference	Participation of external competitions/ activities for high achievers	Teachers nominate more able students to participate in external competition/ activities	Two external competitions are taken part in O-level and A-level classes respectively	Sept 08 to Aug 09	Information from external bodies	LMF/ WWM
		Providing extra materials to more able F.5 students	Students can borrow spare exercise books from teachers	Improvement in the credit rate in the public examination	Sept 08 to Mar 09	Spare exercise books kept in the panel	LMF
		Additional guidance/lesson to F.5 and 7 low achievers	Students can finish the core part of the syllabus well	Passing rate in the internal/public examinations	Sept 08 to Mar 09	Teachers' extra time, exercises for the core part of the syllabus	LMF/ WWM
		Additional guidance/lesson to F.5 average achievers	Students make progress in answering public examination questions	Credit rate in the public examinations	Sept 08 to Mar 09	Teachers' extra time, public examination questions	LMF
		Additional revision class for F.4 and F.5 Low Achievers	Doing fundamental questions	Increasing the no. of students getting Grade D or above in Physics HKCEE	F.4 April 09 to June 2009 F.5 Oct. 09 to Dec. 09	CEG	LMF
		Additional revision class for F.4 and F.5 high Achievers	Doing drilling and higher level questions	Increasing the credit rate in Physics HKCEE	F.4 April 09 to June 2009 F.5 Oct. 09 to Dec. 09	CEG	LMF
		Dealing with the varying learning abilities in F.3 classes	Strategies to cater for different learning needs	Student feedback, result in internal examinations	Sept 08 to Jun 09	Teachers' extra time and effort	LMF/ LCS

3.	Cross curriculum Assignment	One cross curriculum assignment for F.3 classes (e.g. with subject D&T to launch model guilder competition)	Students can use their Physics concept to do their assignment.	Assignment is marked by peers and teachers according to the marking scheme	Jan. 09 to Apr. 09	Materials provided by teachers.	LMF / LCS
4.	Integrating moral and civic education	Helping students develop a habit of rational judgment and self-reflection	Students can use knowledge of physics to make judgment, self-reflection and critical thought	Students are able to express their own thoughts in discussion and give comments to others	Sept 08 to Jun 09	Learning opportunities with events relevant to daily life	LMF/ WWM/ LCS
5.	Administration	Supervising the panel operation, documenting information and materials, evaluating progress and making development	Good documentation and evaluation, strategies for making development	Panel operation in line with the year plan, keeping good records and evaluation	Sept 08 to Aug 09	Teacher's time and effort, financial resources	LMF

V. EVALUATION METHODS ON MAJOR CONCERNS

1. Number of classroom discussion held.
2. Number of e-platform assessment made.
3. Number of self help assignment submitted.
4. Number of seminars/workshops/talks attended by teachers.
5. Feedback on trial run of NSS curriculum.
6. The time used in teaching involving IT methodology.
7. Observe the performance and feedback from students on investigative work.
8. Number of external competitions/activities participated by students.
9. Results obtained by students in internal examinations and public examinations.
10. Feedback for strategies which cater for the learning difference in F.3 classes.

VI. TEAM MEMBERS

1. Mr. Li Ming Fai (LMF) [Head]
2. Mr. Wong Wai Ming (WWM)
3. Mr. Lau Chi Shing (LCS)