Port Moresby International School

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Owned and operated by the International Education Agency.

Unit & Assessment Semester Outline for Students & Parents Grades 11 – 12.

Year	2026	Semester	2	Grade	11	Unit Value	3 – 5
Curriculum	PNG						
Subject Title/s	Physics						
Course Name	PNG Physics						
Unit Name	Dynamics, Work, Power & Energy, Electricity Principles and Electronics						
Course Code		Unit Code					

Assessment Tasks

Week Due	Topic(s)	Type of Task	Weighting
2	Force and motion	Practical & Project (due wk6)	30 %
7	Work, Power and Energy	Theory Test	25 %
13	Electricity	Practical + homework	20 %
16	All three Units	Semester Exam	25%

Learning outcomes against which the students will be reported

Recall facts, definitions and scientific principles.
- Apply concepts and link knowledge in unfamiliar situations.
- Design, perform, undertake and report on scientific investigations.
- Communicate scientific ideas and information with relevance and logical development.

Assessment Criteria

To provide students with a good knowledge and understanding of the Physical world and Universe using experimental and theoretical Physics and enable them to gain entry to Tertiary institutions where they are able to study courses requiring a sound understanding of Physical concepts.

Regulations governing ACT Late Submission of Work, Non-Submission of Work, Attendance, Cheating/Plagiarism, Grade Descriptors, Moderation Procedures, Method of unit score calculation, meshing procedures, Course information - are available from the BSSS website;

www.bsss.act.edu.au/home

Summary of Content

Weeks	Content Outline	Curriculum Links
1 – 2	• Force and Motion • Newtons Laws of Motion • Friction • Inclined plane • Linear Momentum • ***[Public Holiday – W3, Thursday – Remembrance Day]***	Unit 11.2 Force and Motion
3 – 4	• Rotational Motion: • Simple Harmonic Motion: SHM;	
5 – 6	• Work and Power • Energy and Work	Unit 11.3 Work, Energy & Power
7– 9	• Simple Machines (SM) - types of SM; mechanical energy; *MA*; • Mechanical Advantage (*MA*), velocity ratio, efficiency of SM ***[Public Holiday – W8, wed – Repentance Day]***	
10	• Static Electricity	Unit 11.4 Electricity Principles
11 - 13	• Electricity • Ohm's Law • Resistors	
14 – 15	• Electrical Power • Electrical Field Pattern	
16 – 18	• Intrinsic and Extrinsic Semiconductors • Diodes and Transistors • Applications of Diodes and Transistors	Unit 11.5 – Electronics
19 – 20	• Logic Gates	