

Form: 2 Subject: IS Subject Teachers: Chan CL, Poon PH
Textbook(s): Junior Secondary Science: Mastering Concepts and Skills (Oxford) Book 2A and 2B

Cycle	Dates	Syllabus to be covered (Knowledge to be learnt)	Teaching & Learning Skills to be used / learnt (eg. AI, Subject Skills)	Positive Values to be learnt (eg. Values Education & National Security Education)		Remarks*
1	2/9 –10/9	1.0 GROUPING AND LAB. SAFETY Unit 7: Living Things and Air <u>7.1 Air</u> A. What is air made for? B. Test for gases in air C. Properties and uses of gases in air	Notes taking skills	% Law-abidingness	2 1 1 1	
2	11/9 – 18/9	<u>7.2 Photosynthesis</u> A. Plants make food by photosynthesis? B. Tests for the products of photosynthesis? C. Investigating the necessary factors for photosynthesis	Control experiment		1 2 2	
3	21/9 – 30/9	C. Investigating the necessary factors for photosynthesis D. Significance of photosynthesis to other living things <u>7.3 Respiration</u> A. Food as a source of energy B. Obtaining energy from food by respiration? <u>7.4 Gas exchange in plants</u>			1 1 1 1 1	
4	5/10 – 12/10	<u>7.4 Gas exchange in plants</u> <u>7.5 Gas exchange in animals</u>	Concept of “net intake” and “net release”		2 3	
5	13/10 – 21/10	<u>7.6 Balance of oxygen and carbon dioxide in nature</u> A. Natural balance of oxygen and carbon dioxide B. Disrupting the balance of carbon dioxide <u>NSE: Global climate actions</u> <u>7.R Revision and chapter quiz</u>		# Strand 7: Recognize the impact of human activities on the ecology and environment, and the necessity of safeguarding ecological security	1 1 1 2	NSE WS

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6	22/10 – 5/11	Unit 8: Making use of Electricity <u>8.1 Simple circuit</u> <u>A. Conditions for electrical appliances to work</u> <u>B. Electrical conductors and insulators</u> C. Switch D. Circuit symbols E. Circuit diagrams <u>8.2 Current</u> A. What is current? B. Measuring current	Circuit diagram drawing		1 1 1 1 1	UT (26/10-30/10)
7	6/11 – 13/11	C. Analogy of electrical circuit D. Effects of current <u>8.3 Voltage</u> A. What is voltage? B. Measuring voltage C. Effect of changing voltage on current in a circuit			1 2 2	
8	16/11 – 26/11	<u>8.4 Resistance</u> A. Resistance B. Effect of resistance on current C. Factors affecting resistance D. Rheostats			1 3 1	
9	27/11 – 4/12	D. Rheostats <u>8.5 Electrical circuits</u> A. Series circuits	Using AI platform to design different circuits		2 3	
10	7/12 – 15/12	B. Parallel circuits STEAM project	Designing experiments		3 2	NSE WS WS
11	16/12 – 21/12 4/1 – 16/1	STEAM project First Term Revision First Exam	Designing experiments		1 2	WS
13	18/1 – 19/1	Exam Paper Review			2	
14	20/1 – 27/1	Unit 10: Sensing the Environment <u>10.1 Senses, sense organs</u> <u>10.2 Sight</u> A. Structure of our eye <u>10.2 Sight</u> B. The process of how we see C. Seeing near and distant objects	Drawing ray diagram		2 1 2	WS (ray diagram)

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15	28/1 – 15/2	D. Limitations of our eye E. Eye defects <u>10.3 Hearing</u> A. Some properties of sound B. Structure of ears	1. Drawing ray diagram 2. Properties of convex and concave lens	% Empathy % Healthy life education	1 2 1 1	WS (ray diagram)
16	16/2 – 23/2	C. How we hear D. Limitation of our ear E. Noise pollution <u>10.4 Smell and taste</u> A. How we smell? B. How we taste? C. Relationship between smell and taste		% Healthy life education	1 1 1 1 1	
17	24/2 – 5/3	<u>10.5 Other Senses</u> A. Senses of touch, pressure, pain, hot and cold B. Sense of balance <u>10.6 Brain and our senses</u> A. The role of our brain			2 2 1	
18	8/3 – 15/3	B. Reaction time C. Cerebrum D. Illusion 4.R Revision & Chapter Quiz			1 2 2	
19	16/3 – 8/4	Unit 9: Common Acids and Alkalis <u>9.1 Common Acids and Alkalis</u> A. Acids and alkalis found at home B. Acids and alkalis found in laboratory C. Uses of acids and alkalis <u>9.2 Distinguishing Acids and Alkalis</u> A. Natural acid-alkali indicator B. Litmus			1 1 1 2	UT (22/3-25/3)
20	9/4 – 16/4	C. Universal indicator and pH scale D. pH meter <u>9.3 Neutralization</u> A. What happens when neutralization occur? B. Conservation of mass in neutralization	Graph interpretation		2 2 1	STEAM book report

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21	19/4 – 29/4	B. Conservation of mass in neutralization C. Application of neutralization <u>9.4 Corrosive Nature of Acids</u> A. Effect of acids on metal B. Effect of acids on building materials			1 2 2	
22	30/4 – 7/5	9.5 Acid rain A. Causes of acid rain <u>NSE: Controlling acid rain</u> <u>9.6 Potential Hazards related to the use of Acids and Alkalis</u> A. Potential dangers in handling acids and alkalis B. Potential dangers in mixing cleansing products 9.R Revision & Chapter Quiz		# Strand 7: Recognize the impact of human activities on the ecology and environment, and the necessity of safeguarding ecological security	1 1 1 1 1	NSE WS
23	10/5 – 18/5	9.R Revision & Chapter Quiz Unit 11: Force and Motion <u>11.1 Motion</u> A. How to describe motion <u>11.2 Effects of Forces and Ways to Describe Forces</u> A. Effects of forces B. How to describe a force <u>11.3 Balanced Forces and Free-Body Diagrams</u> A. Types of forces			1 1 1 1 1	
24	19/5 – 26/5	B. Balanced forces and unbalanced forces C. Free-body diagrams <u>11.4 Gravity</u> A. What is gravity? B. Free fall C. Mass and weight <u>11.5 Friction and Air Resistance</u> A. Friction	Drawing free-body diagram		2 1 1 1	WS

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25	27/5 – 3/6	A. Friction B. Air resistance C. Reducing friction and air resistance D. Useful effects of friction and air resistance <u>11.6 Action and Reaction</u> A. What are action and reaction			1 2 2	
26	4/6 – 7/6	B. Examples of action-and-reaction pairs Second Term Revision	Drawing action and reaction diagram		1 2	WS

* To be completed by individual teachers after the cycle/topic is over on problems or difficulties encountered so that adjustments/amendments may be made when planning for next year.

Topic related to National Security Education.

% Twelve priority values and attitudes:

Perseverance, Respect for Others, Responsibility, National Identity, Commitment, Integrity, Benevolence, Law-abidingness, Empathy, Diligence, Unity, and Filial Piety.