

SYLABUS

Faculty : Mathematics and Natural Science
 Study Program : Science Education study program
 Course/code : Science2
 Credit : 2 SKS
 Semester : 4
 Prerequisite1 :
 Lecturer : Tim (Maryati, Asri Widowati)

I. DESCRIPTION

This course contains Science materials at 8th (class 8) in the junior high school materials are: System in the human life, system in the plant life, the concept of material particles; uses chemicals in life, the role of effort and energy in daily life, the concept and application of vibration, waves and optics in technology products.

II. COMPETENCY STANDARDS

- a. Understand the various systems of the human and plant life and how learning in school at the junior level class VIII
- b. Understanding and Explain the concept of partikel
- c. Understand and explain the concept and the role of work, force and energy in daily life
- d. Understand and explain the concept and application of vibration, waves and optics in everyday technology products

III. LECTURERE STRATEGY

- a. Class-room
 - Face-to-face lectures
 - discussion
 - presentation
- b. Non-clasical
 - independent task
 - Task group / individual

e. PLAN

Meeting	Base Competence	Subject matter and description	Lecturer Strategy	Refferensi
1	<ul style="list-style-type: none"> •Lecture Contracts •Analysis the important of the growth and the development of the living things •Describe step of the human growth and the development • 	The Growth and development of living things	Discussion and presentation	Trefil, J. dan Hazen, R. M, (2007). The Science: An Integrated Approach. United Stated of America. John Wiley & Sons, Inc.
2	<ul style="list-style-type: none"> •Describe the motions system of the human and thier conection with the health. •Describe the digestive system of the human and their conection 	Systems of the living things	Discussion and presentation	Rex M Heyworth, 2001, Scien Discovery-1. P. 132-139

	with health			
3	<ul style="list-style-type: none"> • Describe the respiration system of human and their connection with health • Describe the circulation of blood and their connection with health 	Systems of the living things	Discussion and presentation	Rex M Heyworth, 2001, Scien Discovery-1.
4	<ul style="list-style-type: none"> • Identify the structure and network on the human body • Describe the process of the energy transportation in the plant 	The Structure and the function of plant network Energy Transformation	Lecturing, Discussion and presentation	Rex M Heyworth, 2001, Scien Discovery-1.
5	<ul style="list-style-type: none"> • Identify kind of motion of the plant • Identify plant disease 	Plant motion, diseases	Lecturing, Discussion and presentation	Rex M Heyworth, 2001, Scien Discovery-1.
6 dan 7	<ul style="list-style-type: none"> • Explanation the concept of atom, ion and molecule by daily chemicals • Compare element molecule and compound molecule 	Ion, atom, element and molekul	Lecturing, Discussion and presentation	Paul Zitzewitz. et. al. (1995). Merril Physics principles and Problems. McGraw-Hill
8	Middle test			
9 dan 10	<ul style="list-style-type: none"> • Lookong for onformation about the use and effect of the chemicals in the daylyllive • Describe the natural and sintetics chemicals on the food and drink label • Describe the effect of psycotrophics 	Chemicals Aditives, adictives and psycotrophics	Discussion and presentation	Rex M Heyworth, 2001, Scien Discovery-1.
11	<ul style="list-style-type: none"> • Identify the vrious of force, resume of force and their effect to the object • Apply the newton Law to explain crious event in the daily live. 	Force and their effect Newton law and their applied	Discussion and presentation	Paul Zitzewitz. et. al, (1997) Physical Science. McGraw-Hill
12	<ul style="list-style-type: none"> • Explain the connection of the kind of energi 	The efort and energy	Discussion and presentation	Paul Zitzewitz. et. al, (1997)

	and their change, principles of the effort-energy and their applied • Conduct experiment of simple machine and their applied in the daily live	Simple machine		Physical Science. McGraw-Hill
13	• Investigation the pressure on the solid, liquid and gas of the object and their applied in the daily live	The pressure of the various object	Discussion and presentation	Paul Zitzewitz. et. al, (1997) Physical Science. McGraw-Hill
14 dan 15	• Describe the concept about vibration and wave and their parameters.	Vibration and wave	Discussion and presentation	Trefil, J. dan Hazen, R. M, (2007). The Science: An Integrated Approach. United States of America. John Wiley & Sons, Inc.
16	Final test			

f. Referensi / sumber acuan

A. compulsory

- Trefil, J. dan Hazen, R. M, (2007). The Science: An Integrated Approach. United States of America. John Wiley & Sons, Inc.
- Paul Zitzewitz. et. al, (1997) Physical Science. McGraw-Hill
- Rex M Heyworth, 2001, Science Discovery-1.

B. Sugestion

On-line sources

Textbook in physics, biology and chemistry

g. Assesment learning

No	Domain	Bobot (%)
1	Participation	20
2	Task	30
3	Middle test	25
4	Final test	25
Total		100

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Mengetahui,
Koordinator Bidang pendidikan IPA

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