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

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Base Competence</th>
<th>Subject matter and description</th>
<th>Lecturer Strategy</th>
<th>Referensi</th>
</tr>
</thead>
</table>
| 1       | 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 |
| 2       | 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 |
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<tbody>
<tr>
<td>3</td>
<td><strong>Describe the respiration system of human and their connection with health</strong>&lt;br&gt;<strong>Describe the circulation of blood and their connection with health</strong></td>
<td>Systems of the living things</td>
</tr>
<tr>
<td>4</td>
<td><strong>Identify the structure and network of the human body</strong>&lt;br&gt;<strong>Describe the process of the energy transportation in the plant</strong></td>
<td>The Structure and the function of plant network Energy Transformation</td>
</tr>
<tr>
<td>5</td>
<td><strong>Identify kind of motion of the plant</strong>&lt;br&gt;<strong>Identify plant disease</strong></td>
<td>Plant motion, diseases</td>
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<td>6 dan 7</td>
<td><strong>Explanation the concept of atom, ion and molecule by daily chemicals</strong>&lt;br&gt;<strong>Compare element molecule and compound molecule</strong></td>
<td>Ion, atom, element and molecule</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
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<td>9 dan 10</td>
<td><strong>Looking for information about the use and effect of the chemicals in the daily live</strong>&lt;br&gt;<strong>Describe the natural and sintetics chemicals on the food and drink label</strong>&lt;br&gt;<strong>Describe the effect of psycotrophics</strong></td>
<td>Chemicals  Aditives, adictives and psycotrophics</td>
</tr>
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<td>11</td>
<td><strong>Identify the various of force, resume of force and their effect to the object</strong>&lt;br&gt;<strong>Apply the newton Law to explain crious event in the daily live.</strong></td>
<td>Force and their effect Newton law and their applied</td>
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<tr>
<td>12</td>
<td><strong>Explain the connection of the kind of engergi</strong></td>
<td>The effort and energy</td>
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and their change, principles of the effort-energy and their applied  
• Conduct experiment of simple machine and their applied in the daily live  

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<tr>
<td>13</td>
<td>• Investigation the pressure on the solid, liquid and gas of the object and their applied in the daily live</td>
<td>The pressure of the various object</td>
<td>Paul Zitzewitz. et. al, (1997) Physical Science. McGraw-Hill</td>
</tr>
</tbody>
</table>

16 Final test

def. Referensi / sumber acuan  
A. compulsory  
• Rex M Heyworth, 2001, Scien Discovery-1.  
B. Sugestion  
On-line sources  
Textbook in physic, biology and chemistry

g. Assesment learning

<table>
<thead>
<tr>
<th>No</th>
<th>Domain</th>
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<tr>
<td>1</td>
<td>Paarticipation</td>
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<td>2</td>
<td>Task</td>
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<tr>
<td>3</td>
<td>Middle test</td>
<td>25</td>
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<td>4</td>
<td>Final test</td>
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<td></td>
<td>Total</td>
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Yogyakarta, 13-2-2012

Mengetahui,
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