**e-RPH PHYSICS FORM 4**

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| **DAILY LESSON PLAN** |
| **CLASS** |  | **WEEK** |  |
| **THEME** | Elementary Physics | **DATE** |  |
| **CHAPTER** | 1.0 Measurement | **DAY** |  |
| **TITLE** | Physical Quantities | **TIME** |  |
| **LEARNING OBJECTIVE** |
| By the end of the PdPc, students will be able to:1. Explain physical quantities.
2. Explain with example base quantities and derived quantities.
3. List the seven base quantities.
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| **TEACHING AND LEARNING ACTIVITIES** |
| **Introduction:**1. Students and teacher do questioning and answering (Q&A) sessions to test the level of students’ existing knowledge.
2. Students pay attention to the teacher’s explanation about the physical quantities, base quantities and derived quantities.
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| **Activities:**1. Students watch a video about the introduction to physics (youtube video suggestion: “what is physics”).
2. In pairs, students briefly discuss the importance and the differences between Physics, Chemistry, and Biology (the results of the discussion will be written in a double bubble map and some students will be asked to explain their findings).
3. Teacher explains the “physical quantities”.
4. In pairs (or groups), students seek information on basic quantities and derived quantities and their examples.
5. Results are presented in class through stand-n-share activities.
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| **Closure:**Students are answering questions 1-3 in Target PBD Physics form 4 pages 1-2. |
| **REFLECTION** |
| \_\_\_\_\_\_ / \_\_\_\_\_\_ students able to achieve the learning objectives.\_\_\_\_\_\_ / \_\_\_\_\_\_ students able to complete the exercises given.\_\_\_\_\_\_ / \_\_\_\_\_\_ students need extra exercise and teacher guidance.Note: Today’s lesson will be carried forward due to:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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| **CLASS** |  | **WEEK** |  |
| **THEME** | Elementary Physics | **DATE** |  |
| **CHAPTER** | 1.0 Measurement | **DAY** |  |
| **TITLE** | Physical Quantities | **TIME** |  |
| **LEARNING OBJECTIVE** |
| By the end of the PdPc, students will be able to:1. List five derived quantities in terms of base quantities and their corresponding S.I. units.
2. List the difference between scalar quantities and vector quantities.
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| **TEACHING AND LEARNING ACTIVITIES** |
| **Introduction:**1. Students and teacher do questioning and answering (Q&A) sessions to test the level of students’ existing knowledge.
2. Students pay attention to the teacher’s explanation about the derived quqantities, vector quantities and scalar quantities.
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| **Activities:**1. Students are divided into groups.
2. In their respective groups, students conduct the Fan-N-Pick activity. Students take turn to answer oral questions to recall the content of the previous lesson (physical quantities / base quantities / derived quantities).
3. Students are explained with examples on how to describe derived quantities in terms of basic quantities and basic S.I. units.
4. Students answer question 4 through discussion and analysis (in the same group).
5. Students are explained about scalar quantities and vector quantities.
6. In groups, student answer question 5 and question 6.
7. Students compare their answers (for question 4 - 6) with other groups through a Gallery Walk activity.
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| **Closure:**Students are answering questions 4-6 in Target PBD Physics Form 4 pages 3-4. |
| **REFLECTION** |
| \_\_\_\_\_\_ / \_\_\_\_\_\_ students able to achieve the learning objectives.\_\_\_\_\_\_ / \_\_\_\_\_\_ students able to complete the exercises given.\_\_\_\_\_\_ / \_\_\_\_\_\_ students need extra exercise and teacher guidance.Note: Today’s lesson will be carried forward due to:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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| **DAILY LESSON PLAN** |
| **CLASS** |  | **WEEK** |  |
| **THEME** | Elementary Physics | **DATE** |  |
| **CHAPTER** | 1.0 Measurement | **DAY** |  |
| **TITLE** | Scientific Investigation | **TIME** |  |
| **LEARNING OBJECTIVE** |
| By the end of the PdPc, students will be able to:1. Interpret seven shapes of graphs to determine the relationship between two physical quantities.
2. Analyse graph to summarise an investigation.
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| **TEACHING AND LEARNING ACTIVITIES** |
| **Introduction:**1. Students and teacher do questioning and answering (Q&A) sessions to test the level of students’ existing knowledge.
2. Students pay attention to the teacher’s explanation about the shapes of the graph and the relationship between two physical quantites and graph analysis.
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| **Activities:**1. In pairs, students share the answers for question 1 from their information search (Robin Rally activity).
2. Students are explained about graph analysis techniques.
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| **Closure:**Students are answering questions 2-3 in Target PBD Physics Form 4 pages 5-8.  |
| **REFLECTION** |
| \_\_\_\_\_\_ / \_\_\_\_\_\_ students able to achieve the learning objectives.\_\_\_\_\_\_ / \_\_\_\_\_\_ students able to complete the exercises given.\_\_\_\_\_\_ / \_\_\_\_\_\_ students need extra exercise and teacher guidance.Note: Today’s lesson will be carried forward due to:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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| **CHAPTER** | 1.0 Measurement | **DAY** |  |
| **TITLE** | Scientific Investigation | **TIME** |  |
| **LEARNING OBJECTIVE** |
| By the end of the PdPc, students will be able to:1. List the nine steps in a scientific investigation and write a complete report on a simple pendulum experiment.
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| **TEACHING AND LEARNING ACTIVITIES** |
| **Introduction:**1. Students and teacher do questioning and answering (Q&A) sessions to test the level of students’ existing knowledge.
2. Students pay attention to the teacher’s explanation about the scientific investigation.
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| **Activities:**1. Students answer question 4 through self-learning.
2. Students are given a briefing about the activities / experiments that will be carried out.
3. Students are reminded about the rules and ethics when conducting scientific investigations.
4. Students carry out the activity in question 5 (individual / pair / group).
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| **Closure:**Students are answering question 5 in Target PBD Physics Form 4 pages 9-11. |
| **REFLECTION** |
| \_\_\_\_\_\_ / \_\_\_\_\_\_ students able to achieve the learning objectives.\_\_\_\_\_\_ / \_\_\_\_\_\_ students able to complete the exercises given.\_\_\_\_\_\_ / \_\_\_\_\_\_ students need extra exercise and teacher guidance.Note: Today’s lesson will be carried forward due to:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |