

Lesson plan for 1st lesson visit

Target: Class 3D

Length: 2 periods (80 mins)

Date: 5/3/2024 P34 (0950 ~1110)

Venue: Physics Laboratory (Old Wing Room 401)

Objective:

1. To understand the basic idea of radiation and daily examples
2. To understand how the colour affecting the absorption and emission of the radiation.
3. To understand how the shining surface affecting the absorption and emission of the radiation.
4. To understand how the temperature difference affecting the absorption and emission of the radiation.

Lesson flow:

Time	Content	Teaching aids
5 mins	Review: ICT: Temperature-time graph Math: Slope	/
15 mins	Basic idea of radiation Infrared radiation Net absorption and emission of radiation	Worksheet IR Lamp IR Thermometer PPT
10 mins	Demonstration: Data analysis from Temperature time graph → Slope at for white curve Interpretation of the data → How the rate of emission and absorption change	Printed Graph from ICT lesson From each groups (Graph of W) Worksheet PPT
10 mins	Students work: Data analysis from Temperature time graph → Slope at different colours: heating vs cooling Interpretation of the data → How the colour affecting the absorption and emission of the radiation.	Printed Graph from ICT lesson From each groups (Graph of W+B) Worksheet PPT
10 mins	Students work: Data analysis from Temperature time graph → Slope for graphs (with aluminium and without aluminium): heating vs cooling Interpretation of the data → How the aluminium the absorption and emission of the radiation	Printed Graph from sample data (Graph of W+A) Worksheet PPT
10 mins	Students work: Data analysis from Temperature time graph → Slope for one graph and different temperature Cooling → heating Interpretation of the data → How the temperature differences the absorption and emission of the radiation	Printed Graph from ICT lesson (Graph of W) Worksheet PPT
15 mins	Examples of Radiation in Daily Life - Roast Spring Chicken - Baked sweet potato	Worksheet PPT
5 mins	Conclusion	