**Revision List for 6th Year Physics Mock Exam 2019**

**Textbook: Real World Physics (Dan O’ Regan)**

**Chapter Topics**

2 **Optics**

3 **Reflection of Light from Spherical Mirrors**

Mandatory Experiment

* To Measure the Focal Length of a Concave Mirror

4 **Refraction of Light**

Mandatory Experiments

* To Verify Snell’s Law
* To Find the Refractive Index of a Liquid

5 **Lenses**

Mandatory Experiment

* To Measure the Focal Length of a Convex Lens

6 **Speed, Displacement, Velocity**

Mandatory Experiment

* To Measure the Constant Velocity of a Trolley.

7  **Acceleration**

Mandatory Experiments

* To Measure the Constant Acceleration of a Trolley
* To Measure Acceleration due to Gravity “g” using a Free Fall Apparatus

8 **Vectors and Scalars**

9 **Force, Mass and Momentum.**

Mandatory Experiments

* To Show a α F
* To Verify the Principle of Conservation of Momentum.

10 **Pressure, Gravity and Moments**

Mandatory Experiments

* To Verify Boyles’ Law
* To Investigate the Laws of Equilibrium for a Set of Coplanar Forces.

11 **Work, Energy and Power**

12 **Circular Motion**

14 **Temperature and Thermometers**

Mandatory Experiment

* To Plot the Calibration Curve of a Thermometer

15 **Quantity of Heat and Heat Transfer**

Mandatory Experiments

* Finding the Specific Heat Capacity of Water by an Electrical Method.
* Finding the Specific Latent Heat of Fusion of Ice
* Finding the Specific Latent Heat of Vaporisation of Water

16 **Waves and Wave Motion**

17 **Vibrations and Sound**

Mandatory Experiments

* To investigate the Variation of the Fundamental Frequency of a Stretched String with Length.
* To Investigate the Variation of the Fundamental Frequency of a Stretched String with Tension
* To Measure the Speed of Sound in Air Using a Resonance Tube.

18  **Wave Nature of Light**

Mandatory Experiment

* To Find the Wavelength of Monochromatic Light

19 **Static Electricity**

20 **Potential Difference and Capacitance**

21 **Current and Charge**

22 **Electromotive Force and Potential Difference**

23 **Resistance**

Mandatory Experiments

* To Investigate the Variation of the Resistance of a Metallic Conductor with Temperature
* To Investigate the Variation of the Resistance of a Thermistor with Temperature
* To Measure the Resistivity of the Material of a Wire

24  **Effects of an Electric Current and Domestic Circuits.**

Mandatory Experiment

* To Verify Joules’ Law

25  **Semiconductors**

26 **Magnets and Magnetic Fields**

27 **Current in a Magnetic Field.**

28 **Electromagnetic Induction**

29 **The Electron**

Note: The Mock Exam will have questions which will test

* Theoretical understanding
* Problem solving ability
* Knowledge of experimental work.

The textbook, workbook, one note resources. laboratory copy (and assistance from the teacher) are the essential resources in preparing for this exam.

Good Luck.

Mr O’ Neill