Ecole Internationale Provence-Alpes-Côte d'Azur

Forward Planning

Long-Term Semester Planning

Academic Year: 2020-2021

Class: S3
Subject: Integrated Sciences (Phys./Chem.)
Teacher: Erazmus
No. Students: 22

Ecole Internationale Provence-Alpes-Côte d'Azur

Curriculum – Long-Term Planning 2020-2021

Date	Objectives/ Connaissances	Activités	Resources	8 Compétences clés *	Evaluation
1/9/20 – 16/10/20 2/11/20 – 18/12/20	Correct use of an ammeter; Advantages of the parallel circuit; Having a qualitative idea of resistance; Electrical safety; Correct use of a voltmeter; Understand the batteries ability to supply electric current, and the addition of batteries in series increases both voltage and current; The water analogy; Simple electromagnets; The electric motor; Understand that charged bodies can attract & repel both each other & uncharged bodies; Identify the two sorts of charge;	Construct, identify & draw simple series & parallel circuits; Measurement of electric current and voltage with different: -batteries; -circuits; Creation of a simple battery using lemons or potatoes; Create simple electromagnets using a battery, nail and coil of wire; Charging balloons using friction;	Textbooks/Revision Guides: BBC Key Stage 3 SCIENCE Complete Revision Guide; Lonsdale SCIENCE Key Stage 3 Revision Guide; Letts KS3 Success Science Workbook; Collins KS3 Revision Science Workbook; Physical Science;		Homework; Test(s); Quiz(s); Lab Activities & Reports; Notebook; Participation, both individual & working in groups with lab partners;

4/1/21 – 19/2/21	Know the characteristics of acids & alkalis; Use and knowledge of various indicators; Knowledge and practical use of the pH scale; Understand the process of neutralisation; Basic knowledge and organization of the periodic table; Ability to distinguish the difference between an atom and a molecule; Know how to balance simple chemical reactions; Basic knowledge of the reactivity series; Define & calculate mechanical work using the correct units;	Taste and feel different household acids & alkalis (e.g. lemon juice, soap,…); Use various indicators to measure acidity/alkalinity of different household items (food/drinks, cleaning products & cosmetics); Create a pH scale poster; Create salt crystals; Create a periodic table poster; Observe the reactions of Mg, Al, Fe, Cu with oxygen, acid and heat;	University of Nottingham Periodic Table Videos; Practice balancing simple reactions using PCCL (Physics Chemistry College Lycee) evaluation software in computer lab; VIDEO: "Chemistry of Fireworks" Ron Lancaster of the Royal Society of Chemistry		
8/3/21 – 23/4/21	Define and calculate moments; Calculate power using the correct units; Identify the simple machines; Understand trading force for distance and vice versa; Understand the nature of light; Identify the difference between reflection and refraction;	Balance a lever by creating equal anticlockwise & clockwise moments at various distances from the fulcrum; Students measure their own power by running up the stairs in the amphitheater; Verify the law of reflection using a piece of cardboard, push pins and a mirror; Observe the bending of light	Videos showing the use of simple machines during ancient times found on the Public Broadcasting System (PBS) Resources		

10/5/21 – 5/7/21	Understand that sunlight is white light which can be decomposed into a color spectrum by using a prism;	due to refraction; Create a pinhole camera to observe a real image; Use an optical bench to observe the formation of images; Observe the decomposition of light using a prism;			

Sensibilité et expression * Lien vers les 8 compétences clés:

1. **Littératie (lecture et écriture)**
2. **Multilinguisme**
3. **Mathématiques, science, technologie et ingénierie**
4. **Numérique**
5. **Personnelles, sociales et capacité d'apprendre à apprendre**
6. **Citoyenne**
7. **Entrepreneuriale**
8. **Culturelles**