

Curriculum Update



St Mary's Catholic School

Energy, ecosystem, equilibrium & matter

Energy: energy, ecosystems, nutrient cycles, photosynthesis, separation, energy, respiration, receptors, controllers, homeostasis, population, climate change, homeostasis, homeostatic mechanisms, feedback effects, receptors, controllers, DNA, Homeostasis, Equilibrium, acids and bases, buffers, enzymes, enzymes, amino acids, proteins, carbohydrates, carbohydrates, acids, bases, redox, electron potential, oxidation-reduction, organic synthesis, chromatography, separation, pure, Physical Oscillations, Thermodynamics, nuclear radioactivity, particle acceleration, detection, particle size, capacitance, electromagnetism, effects, Antimatter.

Oil & fuels, chemical analysis, Earth, evolution, light, ecosystem & biodiversity

Crude oil and fuels, chemical analysis, the Earth's atmosphere and resources, electromagnetic, variation, genetics and evolution, organic reactions and polymers, light adaptations, interdependence and competition, organising an ecosystem, biodiversity, using our resources and space

Cell, Atoms, energy, digestion & energy

Cell structure and transport, atomic structure, conservation and dissipation of energy, Energy transfer by heating, the periodic table, cell division, energy resources, structure and bonding, organisation and the digestive system, electric circuits, organising chemicals and plants, revision

Introduction to science skills, cells, Tissues, organs, electricity & sound

Science skills, cell, tissues and organs, sexual reproduction in animals, energy, mixtures and separation, acids and alkalis, electricity, muscles and bones, the particle model, forces, sound, atoms, elements and molecules, revision.

Science is the world around you

Cell, atoms & mechanics



Cells: cells structure, the importance of cell membranes, cell recognition, immune system, cell biology, osmosis, nucleus and ATP, water and surface area to volume ratio, gas exchange, digestion and excretion, mass transport, DNA, genes and chromosomes, protein synthesis, permeability, osmosis and homeostasis, tonicity.

Atoms: Atom, ions and compounds, electrons and bonding, molecule shapes, substances on a molecular level, basic organic chemistry, atoms, acids, bases, reactivity, structures, molecular level, organic synthesis, entropy, reaction rates and equilibrium, reaction rate, analytical techniques.

Physics: Measurements, errors, mechanics, matter, motion, waves, forces, materials, pressure, phenomena, electric direct current, waves, further mechanics.

Disease, chemicals, electricity, molecules, photosynthesis, respiration, nerves, force & hormones

Communicable, preventing and treating diseases, non-communicable diseases, chemical calculations and changes, electrolyte, electricity in the home, radioactivity, molecules and matter, photosynthesis, respiration, the human nervous system, energy changes, rates and equilibrium, forces in balance and motion, motion, hormonal coordination, reproduction, wave properties, EM waves, force and pressure, homeostasis in action and crude oil and fuels.

Food, digestion, breathing, reproduction & organisms

Food and digestion, fluid, combustion, the periodic table, plants and their reproduction, breathing and respiration, metals and their uses, light, energy frontiers, unicellular organisms, the Earth and space, rocks, revision.

