Comparing Science Curricula: Iraq

ESCAPE PROJECTS

Grade	Science Strands				
	Life Systems	**Matter and Energy**	**Structures and Mechanisms**	**Earth and Space Systems**	**STEM Skills and Connections**
6	Plant reproduction (natural and artificial); Human body (organs, nervous system, skeletal system, muscular system, sense organs, skin and tissue)	Matter; Chemical reactions; Mass and weight; Simple machines; Electrical energy; Light energy; Thermodynamics; Equilibrium	Capacitors; Circuits; Kinetic electromotive force; Alternating current; Quantum mechanics; Waves; Relativity; Electronic orbitals; Conductors, insulators, and semiconductors; Atomic spectrums and laser; Nuclear physics (nuclear binding energy, nuclear reactions)	Earth's plate; formation of continents and oceans; earthquakes and volcanoes; the atmosphere and its gases; nebulae and stars; galaxies.	Chemical analysis methods (qualitative, quantitative, gravimetric, sedimentation, volumetric); Scientific writing and readings integrated.
7	The cell (including division); Genetics; Life and Organisms; Necessities of Life; Air, Water and Soil	Matter; Atoms, Elements, and Compounds; Chemical reactions; Periodic table; Energy and fuel types (fossil fuels, nuclear, alternative sources, solar energy); Mass and density; Heat and temperature; Heat transfer (conduction, convection and radiation; Absorbers and emitters; Heating systems)	Force; Pressure	Ecology; Water and atmosphere (substances present in air, air pressure, oceans, formation of clouds, rains and storms, layers of atmosphere, water pollution)	Microscope; Laboratory Apparatus and Equipment; First Aid; Chemical Industries in Iraq; Everyday Applications (e.g., Soap, Toothpaste, Leather, Ink); Computer system and software; Algorithms and programming fundamentals; Information technology.
8	Classification of living things; Viruses; Bacteria; Fungi; Algae; Plant classification; Plant anatomy; Invertebrates; Vertebrates; Food Chain; Extinction	Matter; Chemical reactions and equations; Hydrogen; Oxygen; Water; Acids, bases and salts; Carbon; Work; Energy; Motion; Waves; Newton's laws of motion; light	Sound; Reflection and plane mirrors; Curved mirrors; Refraction; Lenses; Electromagnetic spectrum and colour; Simple machines	Ecology; Environmental problems (Greenhouse effect, global warming)	Laboratory Apparatus; Computer system and software; Algorithms and programming fundamentals; Information technology.
9	The Human Body (Skeletal System, Muscular System; Digestive System; Circulatory System; Respiratory System; Execretion; Reproductive System; Nervous System; Sense Organs; Secretion); Diseases; Nutrition	Atomic structure for matter; study of different groups in the periodic table (IA & IIA, IIIA, IVA, VA, VIA, VIIA); Solutions/Concentration; Organic Chemistry; Energy and Electrical power; Energy sources technology;	Electrostatic; Magnetism; Electric current; Battery; Electromotive Force; Electric Transformer; Electricity	Atmosphere, its contents, and modern communication technology	Laboratory Apparatus

Adapted from: Iraqi Ministry of Education. (2021). Iraqi Curricular Documents: Intermediate & Secondary. https://www.manahj.edu.iq