Matching grid of Italian Science syllabus and OCLS Science contents

Liceo Artistico, Classico, Linguistico, Musicale, Scienze Umane, Liceo Scientifico	**Liceo Scientifico- science option**	**OCLS Science**
1st and 2nd year	*1st and 2nd year*	
Microscope observation	*same as col. A*	2.2 Light microscopes
Chimical reactions observation	*same as col. A*	
Units of measurement and data collecti	*same as col. A*	0.4 Note taking skills, 0.5 How to research efficiently, 38.0 How to draw a graph or chart
Earth rotation period	*same as col. A*	37.1 The Earth
Rivers, lakes, seas, oceans and glaciers	*same as col. A*	[OCLS GEOGRAPHY- Rivers, Marine Processes]
Eruptions, earthquakes, avalanches, floods (introduction)	*same as col. A*	
Cell and introduction to DNA	*same as col. A*	2.1 Cell structure and organization
Evolution and genetics	*same as col. A*	11.0 Inheritance and variation
Human body	*same as col. A*	
States of matter and transformations	*same as col. A*	14.0 The nature of matter
Dalton's atomic theory	*same as col. A*	15.1 Atoms
Mendeleev periodic table	*same as col. A*	17.0 The Periodic Table
Liceo Classico, Liceo Linguistico, Scienze Umane, Scientifico	**Liceo Scientifico- science option**	
3rd and 4th year	*3rd and 4th year*	
Structure and functions of DNA	*same as col. A*	
Protein biosyntesis	*same as col. A*	
Genetic code	*same as col. A*	11.0 Inheritance and variation
Forms and functions of microorganisms, vegetal and animal creatures	*same as col. A*	1.1 Chacteristics of living things, 2.3 Cell features and plants and animals, 5.0 Plant nutrition and transport, 9.0 Reproduction in animals, 10 Reproduction in plants
Anatomical and physiological aspects of human body	*same as col. A*	6.0 Transport in humans, 7.0 Breathing and respiration, 8.0 Nerves, hormones and
Health	*same as col. A*	4.0 Human Nutrition
Inorganic compounds classification and nomenclature	*same as col. A*	15.4 Compounds
Introduction to stoichiometry, atom's structure and models, periodic table and its properties	*same as col. A*	15.0 Atoms, elements and compounds, 18.0 Stoichiometry, 19.0 Bonding, 20 Metals
Introduction to organic chemistry	Introduction to organic chemistry: from the caractheristic of Carbon, to funtional groups and their reactivity	24.0 Organic chemistry
Introduction to chemical reactions (acid-base and redox) with focus on thermodynamic and kinetics aspects	*same as col. A*	21.0 Chemical reactions, 22.0 Rates of reaction, 23.0 Acids and bases
Introduction to mineralogy and petrology	*same as col. A*	5.3 Water, minerals and fertilizers
\	Introduction to electrochemistry	
\	Volcanism, seismology and orogeny	
Liceo Classico, Liceo Linguistico, Scienze Umane, Scientifico	**Liceo Scientifico- science option**	
5th year	*5th year*	
Most important biomolecules	*same as col. A*	
Biochemical process in relation to contemporary age, such as genetic engeneering	*same as col. A*	13.0 Nutrient cycles
\	Genetic engeneering devolpment (retrovirus,restriction enzymes, recombiant DNA, PCR)	
\	Organic chemistry with particular reference to polymers and composite material	
\	Introduction to materials science and classification	
\	Introduction to genomics and proteomics	
Plate tectonics	*same as col. A*	[OCLS GEOGRAPHY - Plate Tectonics]
Weather processes	*same as col. A*	[OCLS GEOGRAPHY- Weathering]
Structure of the atmosphere	*same as col. A*	[OCLS GEOGRAPHY- Weathering, Weather and climate]
Intedisciplinary researches on environment, energetic resources, alternative energies	*same as col. A*	[OCLS GEOGRAPHY- Ecosystems and Resource Management]
\	Lab activites	16.0 Experimental techniques