

都立国際高校 年間授業計画 / Tokyo Metropolitan Kokusai High School Course Syllabus

科目基礎情報 / Course information				
開講年度 / Academic year	令和4年度 / 2022年度			
開講学科 / Department	国際学科国際バカロレアコース / IBDP(International Baccalaureate Diploma Programme)			
教科 / Subject	Science			
科目 / Course Title	DP Chemistry Higher Level (HL)			
学年・クラス / Year・Class	2 (IBDP 1st Year)			
単位数 / credits	6			
科目概要情報 / Course description				
講座概要 / Course description	Chemistry is a branch of science that deals with structure, composition and properties of matter found in living and non-living organisms. Chemistry concepts are usually characterized by interactions of atoms at the atomic and molecular level. It is central to the study of physical environments and biological system and as such the course carries an underlying content of Biology and Physics in addition to the chemistry content. The course involves consolidating content with practical experiments.			
到達目標 / Course objectives	<ol style="list-style-type: none"> <li>1. Appreciate scientific study and creativity within a global context through stimulating and challenging opportunities</li> <li>2. Acquire a body of knowledge, methods and techniques that characterize science and technology</li> <li>3. Apply and use a body of knowledge, methods and techniques that characterize science and technology</li> <li>4. Develop an ability to analyse, evaluate and synthesize scientific information</li> <li>5. Develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities</li> <li>6. Develop experimental and investigative scientific skills including the use of current technologies</li> <li>7. Develop and apply 21st century communication skills in the study of science</li> <li>8. Become critically aware, as global citizens, of the ethical implications of using science and technology</li> <li>9. Develop an appreciation of the possibilities and limitations of science and technology</li> <li>10. Develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.</li> </ol>			
評価方法と評価基準 / Evaluation method and criteria	Lab Reports, Assignments, Class Activities, Tests			
教科書 / Textbooks	Oxford IB Diploma Programme Chemistry			
校外学習 / Field trip				
授業計画 / Course schedule				
	指導項目 / Topic	指導内容 / Contents	評価の方法・基準 / Evaluation method and criteria	予定時数 / Alotted hours
1学期 / 1st semester	4月	Stoichiometry The Particulate Nature of Matter Chemical Change The Mole Concept Calculations involving the mole, volumes and masses	Class activities, Assignments and Tests	20
	5月	Atomic Structure The atom and Electronic structure	Class activities, Assignments, Test and Experiments	30
		Periodicity The Periodic Table and Periodic Trends		
	6月	Chemical bonding Chemical bonding	Class activities, Assignments, Test and Experiments	30
		Measurement and data processing Measurement and data processing		
7月	Chemical Kinetics Chemical Kinetics	Class activities, Assignments, Test and Experiments	20	
2学期 / 2nd semester	9月	Equilibrium Equilibrium	Class activities, Assignments and Tests	22
	10月	Acids and Bases Acids and Bases	Class activities, Assignments, Test and Experiments	30
		Energetics and Thermochemistry Energetics and Thermochemistry		
	11月	Energetics and Thermochemistry Energetics and Thermochemistry	Class activities, Assignments, Test and Experiments	24
	12月	Redox Processes Redox Processes	Class activities, Assignments, Test and Experiments	10
3学期 / 3rd semester	1月	Redox Processes Redox Processes	Class activities, Assignments and Tests	16
	2月	Organic Chemistry Organic Chemistry	Class activities, Assignments, Test and Experiments	22
	3月	Measurement and data processing Measurement and data processing	Class activities, Assignments, Test and Experiments	10