



ISTITUTO DI ISTRUZIONE SUPERIORE
 “GIANCARLO SIANI”
 Via Pietravalle – 80131 - Napoli
 Dist.Scol. N.43 Cod. Fisc. 95170160634 –
 Cod.Min.NAIS099003 Tel./Fax 081.545.62.14
<http://www.itcsiani.it> – e-mail
nais099003@istruzione.it



Unione Europea

ANNO SCOLASTICO 2017/2018
 INDIRIZZO: TECNICO BIOTECNOLOGICO
 MODULO CLIL CHIMICA ORGANICA E BIOCHIMICA
 CLASSE V SEZIONE Y
 DOCENTI: A. BASILE/M. COLTORTI

Materia/e DNL	ARGOMENTO	Competenze	Ore
Chimica organica e biochimica Language content: B1 +/B2 English language Level	<ul style="list-style-type: none"> Chemistry of carbohydrates, monosaccharides, polysaccharides, chirality. 	Acquisizione di competenze linguistiche e di contenuti scientifici. Language content: Reading: decoding information and scan for specific information; Writing: taking notes, writing definitions and short weft structured essays; Listening: understanding and following instructions and scientific communications; Speaking: summarizing a text passage and giving a short presentation. Using Biochemistry- related lexical terminology.	6
		<ul style="list-style-type: none"> How do Enzymes work? 	Science content (topic one): defining terminology relating to

		<p>starch and cellulose;</p> <p>identifying the connection between chemical structure and function of starch and cellulose;</p> <p>describing the main characteristics of starch and cellulose at macroscopic, microscopic and molecular level;</p> <p>explaining the rationale of experimental Lugol and Fehling tests; Experimental activity: Lugol and Fehling tests.</p> <p>Science content (topic two):</p> <p>defining terminology relating to enzyme, activation Energy, equilibrium, free Energy, rate of a reaction.</p> <p>Describing the graphic of free Energy changes vs time course of reaction.</p>	
--	--	---	--