1. Record Nr. UNINA9910778483803321

Autore Wilson David L (David Louis), <1943->

Titolo Introduction to biology [[electronic resource] /] / David L. Wilson

Pubbl/distr/stampa Malden, Mass., : Blackwell Science, c2000

ISBN 1-282-37097-9

9786612370977 1-4443-1322-3

Descrizione fisica 1 online resource (290 p.)

Collana 11th hour

Disciplina 570.76

Soggetti Biology

Genetics

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Includes index.

Nota di contenuto Introduction to Biology; CONTENTS; 11TH HOUR GUIDE TO SUCCESS;

PREFACE; Unit I: FROM ATOMS TO LIVING CELLS; 1: Introduction to Biology; TOPIC 1: A BRIEF HISTORY OF LIFE AND THE UNIVERSE; TOPIC

2: MAJOR GENERALIZATIONS ABOUT LIFE; TOPIC 3: SCIENTIFIC

METHOD: 2: Atoms Bonds Water and Carbon: TOPIC 1: ATOMS: TOPIC

METHOD; 2: Atoms, Bonds, Water, and Carbon; TOPIC 1: ATOMS; TOPIC 2: CHEMICAL BONDS; TOPIC 3: WATER: pH AND HYDROGEN BONDS; TOPIC 4: CARBON: TETRAHEDRAL BONDS AND ISOMERS; 3: Molecules

and Macromolecules of Life; TOPIC 1: FUNCTIONAL GROUPS; TOPIC 2: CARBOHYDRATES; TOPIC 3: LIPIDS; TOPIC 4: AMINO ACIDS AND

PROTEINS

TOPIC 5: NUCLEOTIDES AND NUCLEIC ACIDS4: Membrane Structure and

Function; TOPIC 1: MEMBRANE STRUCTURE; TOPIC 2: PASSIVE TRANSPORT ACROSS MEMBRANES; TOPIC 3: ACTIVE TRANSPORT ACROSS MEMBRANES; 5: Cellular Organization; TOPIC 1: NUCLEUS, ENDOPLASMIC RETICULUM, AND GOLGI APPARATUS; TOPIC 2:

CELLULAR ORGANELLES; TOPIC 3: CYTOSKELETON AND CELL JUNCTIONS; 6: Energy and Enzymes; TOPIC 1: THERMODYNAMICS,

HEAT, AND ENTROPY; TOPIC 2: FREE ENERGY AND COUPLING; TOPIC 3: HOW ENZYMES WORK; TOPIC 4: ENZYME REGULATION AND INHIBITION;

7: Energy Metabolism and Cell Respiration

TOPIC 1: OXIDATION, REDUCTION, AND NADHTOPIC 2: GLYCOLYSIS;

TOPIC 3: KREBS (CITRIC ACID) CYCLE; TOPIC 4: ELECTRON TRANSPORT CHAIN AND OXIDATIVE PHOSPHORYLATION; TOPIC 5: FERMENTATION; 8: Photosynthesis: Harnessing Energy for Life; TOPIC 1: CHLOROPLASTS AND CHLOROPHYLL; TOPIC 2: LIGHT REACTIONS; TOPIC 3: CALVIN (CALVIN-BENSON) CYCLE; Unit I Exam; Unit II: GENES, INFORMATION, AND HEREDITY; 9: DNA Structure, Function, and Replication; TOPIC 1: EVIDENCE THAT DNA IS THE GENETIC MATERIAL; TOPIC 2: DNA STRUCTURE; TOPIC 3: DNA REPLICATION 10: RNA and Protein: Transcription, Translation, and the Genetic CodeTOPIC 1: TRANSCRIPTION; TOPIC 2: KINDS OF RNA AND RIBOSOME CONSTRUCTION; TOPIC 3: THE GENETIC CODE; TOPIC 4: TRANSLATION; 11: Cell Cycle, Mitosis, and Meiosis; TOPIC 1: THE CELL CYCLE AND MITOSIS; TOPIC 2: MEIOSIS; TOPIC 3: SEXUAL REPRODUCTION AND GENETIC VARIATION; 12: Mendelian Genetics; TOPIC 1: MENDEL'S RULES AND GENETIC VARIATION; TOPIC 2: GENETIC CROSSES; TOPIC 3: COMPLEXITIES; TOPIC 4: PEDIGREE ANALYSIS; 13: Recombination, Linkage, and Mapping; TOPIC 1: SEX-LINKED INHERITANCE; TOPIC 2: LINKAGE AND RECOMBINATION TOPIC 3: GENETIC MAPPING14: Genetics of Bacteria and Viruses: TOPIC 1: VIRUSES AND THEIR LIFE CYCLES; TOPIC 2: BACTERIA: GENETIC RECOMBINATION AND PLASMIDS; TOPIC 3: OPERONS AND THE REGULATION OF PROKARYOTIC GENE EXPRESSION; 15: Gene Expression, Gene Technology, and Human Genetics; TOPIC 1: REGULATION OF GENE EXPRESSION IN EUKARYOTIC CELLS: TOPIC 2: HUMAN GENETIC DISORDERS: TOPIC 3: GENE TECHNOLOGY: CLONES, PLASMIDS, PCR, AND RFLPs; Unit II Exam; Unit III: EVOLUTION; 16: Evolution and Natural Selection; TOPIC 1: EVOLUTION: HISTORY AND

Sommario/riassunto

Visit www.blackwellpublishing.com/11thhour for additional information. This book reviews the more challenging material in a college-level, introductory course in biology. It is intended to supplement standard textbooks in biology, or for students who wish to review such material. '11th Hour: Introduction to Biology' is of particular use to students enrolled in a majors or non-majors introductory biology course, or students taking AP biology. It concentrates on those topics that usually give students the most difficulty, and problems/questions are rated throughout in terms of their

EVIDENCE; TOPIC 2: NATURAL SELECTION 17: Microevolution and Population Genetics