**REGENTS LIVING ENVIRONMENT**

**COURSE OUTLINE 2022-2023**

**THE CINEMA SCHOOL ∙ MS. JONES/MR. COLE**

OVERARCHING QUESTION TO FRAME THE COURSE:

***“What defines a living thing and how do they maintain stability and interact with each other?”***

This handbook is designed to help you have a successful year and to be able to have a quick reference for class content, expectations and procedures**. Please keep it in the front of your binder for future reference.**

The Living Environment is a required Regents biology laboratory science which is used to fulfill the requirements for the New York State Regents Exam. Successful completion of this course will contribute to your receiving a Regents Diploma upon graduation. The course covers several different content areas with seven key concepts weaved throughout the material. The course seeks to develop inquiry skills, problem solving skills and critical thinking skills. The seven key concepts specified by New York State are listed below.

**Seven Key Concepts**

1. Living things are both similar and different from each other and from

nonliving things.

1. Organisms inherit genetic information in a variety of ways that result in

continuity of structure and function between parents and offspring.

3. Individual organisms and species change over time.

4. The continuity of life is sustained through reproduction and development.

5. Organisms maintain a dynamic equilibrium that sustains life.

6. Plants and animals depend on each other and their physical environment.

7. Human decisions and activities have had a profound impact on the physical and the living environment.

**A Word on Labwork:**

* You are **required by New York State** to complete at least 1200 minutes worth of lab assignments over the course of the year.
* Laboratory work is an extremely important part of the Living Environment curriculum. **If you are absent for lab, you MUST make it up**.
* You will store all of your graded lab reports in a personalized folder that will be maintained in the classroom.
* **Do not take your labs out of the room.** If somehow your labs are taken out of the classroom and lost, **you cannot sit for the exam in June** and your graduation will be put in jeopardy.

**Topic List**



This course includes an extensive body of information which must be applied to concepts. In order to complete all areas of study before the Regents examination a strict time schedule must be maintained. Students should master each topic unit of study as it is presented since there is not sufficient time to “re-teach” the entire course in the last few weeks of school. Below is an approximate schedule.

| **Semester 1** | **Semester 2** |
| --- | --- |
| Unit 01 - Scientific Inquiry (13 periods)*How do scientists organize and carry out an investigation?** The Role of Scientific Inquiry in Biology
* Scientific Method and Experimental Design
* Laboratory Techniques and Safety
 | 05 - Reproduction & Development (24 periods)*What is the function of cell division and body systems in reproduction?** Meiosis
* Reproductive Systems
* Fertilization
* Development
* Stem Cells
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| Unit 02 - Ecology (21 periods)*How do the individuals and species relate to each other in ecosystems?** Relationships
* Interactions
 | 06 - Genetics & Biotechnology (19 periods):*What are the roles of DNA and RNA in organisms & protein synthesis?** Mendel & Genetic Transmission of Traits
* DNA/RNA
* Protein Synthesis
* Diseases
* Mutations
* Bio-engineering
* Bioethics
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| 03 - Organization & Patterns in Life (28 periods)*How do the organelles of a cell perform processes to maintain homeostasis?** Cell Structure & Physiology
* Photosynthesis & Respiration
* Types of Biochemical Molecules
* Formation of First Cells from Molecules
* Membranes, Diffusion & Osmosis
* Mitotic Cell Division
 | 07 - Evolution (15 periods)*How can we tell how closely related are organisms?** Natural Selection
* Evidence
* Biodiversity
* Classification
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| 04 - Homeostasis & Immunity (12 periods)*How do the various body system work together to maintain homeostasis?** Body System Overview
* Homeostasis & Feedback Systems
* Nutrition, Circulation, and Respiration
* Immune Response
 | 08 - Human Impacts (12 periods)*How have humans impacted our environment?** Positive Influences
* Negative Influences
* Decision-Making (Risks & Benefits)
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| Review & Midterm (3 + 2 periods) | Review & Final (10 periods)  |

**Supplies Needed**![MCj03495890000[1]]()

***Every day of class you need to bring***:

1. A folder OR a binder with dividers with paper
2. A blue or black pen **AND** a #2 pencil.

**Expectations and Evaluations**

Biology is an interesting and fun course of study. Similar to many things in life that are worthwhile, this course if very challenging and will require a good deal of hard work. Please read the following carefully so that you can get off to a great start this year.

**Notes**:

* Students are expected to keep notes that are given by the instructor, taken during the instructor’s lectures, or composed by the student during an activity
* ***Organization will play a big role in your success in this course.*** Student’s notebooks should only contain material relating to the unit under study. Materials from previous units of study should be filed chronologically in a safe place at the student’s home.
* ***This course is cumulative.*** You will need to review material covered in previous units for the midterm as well as the Regents examination in June 2018. Don’t throw out anything until you check with one of the instructors.

**Homework:**

* Complete homework is due at the beginning of the class period **of the due date assigned.** Homework is a very important part of the course. There is a purpose to the homework- to prepare for an experiment, analyze experimental data, or help you study and comprehend the material discussed in class.
* A schedule of assignments will be given at the beginning of each unit of study. This is done in order for you to effectively plan your calendar.
* ***Late assignments are not accepted unless you have a verified absence or extreme situation.***
* If you have a verified absence, you must submit the homework to the instructors **within two days of your return**. It is your responsibility to obtain and submit assignments. You will not be reminded to hand in homework.
* Some homework assignments will be graded while others will be checked for completion.

**Exams and Quizzes:**

* Exams and quizzes will be given at the beginning of class periods. Quizzes will be given primarily to assess student preparation for the laboratory exercises and classroom activities; exams typically are at the end of a unit or occur at the midway points of larger units.
* Similar to non-exam days, you are required to come to class prepared (i.e. #2 pencil and/or pen) \*\**on those exams requiring computations, calculators will be provided\*\**
* ***If you have a verified absence and miss a scheduled test, the test must be made up within three days of your return to school. Like quizzes, tests cannot be made up during class time. It will be your responsibility to arrange a make-up time with me immediately upon your return to school.***
* If you have an unverified absence for the period an exam is given, **you will not be allowed to make up the exam and you will receive a grade of 45%.**

**Grading**

Quarter grades are calculated using a computer program to avoid mathematical errors. Averages will be calculated throughout each marking period and students will periodically receive progress reports detailing grades. In calculating averages, each graded assignment will have a different weight or value. Standard values are as follows:

**Homework - 15%**

**Classwork and Participation - 35%**

**Assessments (test, quizzes, etc) - 30%**

**Performance Task (essay, projects, etc.) - 20%**

**Extra Help**

* Based upon Ms. Jones’ schedule ---- day of week to be announced in September. 
* Special review sessions will be announced throughout the year for major tests.
* If you are having any problems with the course material, it is your responsibility to seek out extra help either during school or after school.

**Contact Information**

* I may be contacted via e-mail at LJones@tcs-nyc.org or WCole@tcs-nyc.org. If you wish to have a phone call or set-up a person-to-person meeting with me, send an email anytime!