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| **Course Syllabus**  **Life Science**  **7th grade** |

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# Course Overview

The focus of the 7th grade Life Science course is the continued investigation of science as a means for exploring and understanding the natural world with respect to foundational life science topics (cellular structure and function, taxonomy, evolution, anatomy, ecology, physiology, etc.), key conceptual models and mathematical concepts (e.g. systems, derived units, energy/matter relationships, etc.), and the challenges encountered in science. As with all junior high science classes, methods of observation, experimental design, modeling, measurement, and data interpretation are emphasized throughout as students regularly engage in activities, projects and labs in a variety of scientific disciplines.

The interactive nature of classroom discussions and problem solving will require thorough prior preparation. Student confidence and success with the subject material correlates to the student’s completion of homework and level of preparation for each class session. The ability to think critically and analyze information with an open mind will be key to comprehending and expanding on the concepts associated with this course.

**Class Materials**

**Students should have all of the following materials available during instruction**

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| 2”, 3-ring binder (See binder organization on the following page) | Small, portable pencil sharpener | Colored pencils |
| Goggles (purchase info TBA) | Red ballpoint pen | Student scissors (pointed) |
| 6 Divider sheets with tabs | Blue/black ballpoint pen | Small, portable stapler with staples |
| Lined notebook paper OR a 3-hole spiral notebook (college or wide ruled) | Highlighter | Basic function calculator |
| Pencils (mechanical ok) & erasers | Lined 3”X 5” index cards | Ruler with metric units (cm/mm) |

**Additional materials to provide for classroom use:**

* + 1 roll of paper towels

**Binder Organization**

Each student should maintain a binder with a section dedicated specifically to Life Science organized as described below. Multiple subjects may be combined in a single binder as long as the below structure is maintained for science:

**Front inside pocket:**

* Homework due that day

**Use 6 dividers to separate sections for:**

1. Bell work
2. Class notes (may write in a notebook or on loose leaf)
3. Handouts
4. Homework
5. Tests/Quizzes
6. Labs/Projects

# Course Objectives

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| --- | --- | --- | --- |
| ***Quarter 1*** | ***Quarter 2*** | ***Quarter 3*** | ***Quarter 4*** |
| * ***Intro to Life Science*** * ***-Scientific Method*** * ***-Lab Safety*** * ***Biochemistry*** * ***Cell Structure & Function*** * ***-Microscopes*** * ***Taxonomy*** * ***Genetics/Heredity*** * ***-Mitosis and Meiosis*** * ***-Phenotype and*** * ***Genotype*** * ***-Punnett Squares*** * ***Evolution*** | ***Viruses and Bacteria***  ***Protists and Fungi***  ***Plants***  ***Worms***  ***Sponges***  ***Cnidarians*** | * ***Arthropods and Insects***   ***Mollusks and Echinoderms***   * ***Vertebrates*** * ***Ecology and Energy***   ***Human Anatomy &***  ***Physiology***  ***-Anatomical position***  ***-Cellular Organization***  ***and Systems*** | ***Musculoskeletal System***  ***Integumentary System***  ***Nervous System***  ***Respiratory System***  ***Digestive System***  ***Reproductive System***  ***Circulatory and Immune***  ***System*** |

# Course Materials

Textbook: Prentice Hall Science Explorer Life Science

# Supplementary Course Materials

Lab write up guidelines

Minimum writing requirements

Works cited requirements

Additional supplementary handouts provided as needed throughout the year

# Course Expectations

**Homework**

Homework is assigned frequently, if not daily. Homework will often be reviewed the next day in class. Students are expected to correct his or her own work. Homework may be either checked for completion or turned in to be more thoroughly graded. Homework must be completed and ready to submit **at the start of class** at the next class meeting. **Incomplete or missing homework will receive a grade of zero, but is still due**. *The teacher may require a student to make up missing homework or other items not completed in class, during student “free time” periods, such as lunch break.* Homework and assignments will be posted daily on the Life Science class website (see above).

**Participation**

Each student will be evaluated quarterly in five categories – participation, safety, preparedness, attitude, and depth of inquiry. These are very important aspects of student achievement at SPA. Each student is expected to *consistently* contribute to class discussions in a conscientious and meaningful manner, and safely participate during labs/group work. Each student is expected to cultivate a positive, proactive attitude toward their learning. Student behavior and attitude during class will also be a factor in grading.

# Tutoring

**Tutoring will be held daily in the library during Middle School Lyceum (1:35-2:00) or if another time is needed an appointment must be made.** Students should feel free to seek help from any Life Science instructor. Tutoring is intended as additional help for students who are seeking a more thorough understanding of the principles presented during class. Tutoring hours may also be used to make up missing quizzes, tests or other assignments missed due to absence. Tutoring is not intended to replace class time for students who were not attentive to regular instruction. Grade information or students needing information on make-up assignments due to an absence, or to address another concern should be reserved for private discussions by appointment only.

# Assessments, Projects, and Labs

**Quizzes**

Quizzes may be announced or unannounced and may cover assigned reading, homework or any other material covered in class. Quizzes may include multiple choice, fill-in-the-blank, short answer, and diagram labeling questions. Quizzes will be used to assess understanding of reading assignments and material learned in class and will serve to help students develop strong study habits. **If you struggle with an individual quiz, it is an indication you need to take pro-active measures to come to tutoring and seek out clarification of unclear concepts.**

**Tests**

Tests will be administered approximately every 2-3 weeks throughout the year to assess understanding and comprehension of key concepts. Some key Life Science topics are cumulative in nature and understanding of them will be assessed throughout the year on multiple tests.

* + **Test corrections** are encouraged and will be offered for students to earn up to a MAXIMUM of 10% back (depending on quality of corrections) on their tests to achieve up to and no more than a total of 85% on each test. *Students may only do test corrections if they scored BELOW an 85%.*
    - For instance, if a student scores an 80%, the highest a student can obtain is an 85% after submitting corrections.
    - Another example, if a student scores a 70%, the highest a student can obtain is an 80% after submitting corrections.
  + **Quality of test corrections will be assessed according to the following guidelines:**
    - Test corrections must be done on a separate piece of paper
    - Every incorrect answer from original test must be corrected
    - In correcting answers, it is not sufficient to simply write what the correct answer is. Students must explain why each answer is correct.
  + ***Please note: The test correction policy does NOT apply to quizzes.***

**Midterm/Final Exams**

* + A cumulative midterm exam will be given at the end of first semester. This exam will cover all information learned first semester. *The midterm exam will be worth 20% of the total Semester 1 grade.*
  + A final exam will be given at the end of second semester. This exam will cover all information learned second semester, as well as some key concepts learned first semester. These key first semester concepts will be re-visited second semester in preparation. *The final exam will be worth 20% of the total Semester 2 grade.*

**Projects, Activities, Labs, and Writing Assignments**

Throughout the year there will be numerous lab activities requiring either informal or formal lab write-ups, at least one assigned research project, as well as additional projects and activities. Some projects may be group projects, and some may be individual. Labs will reinforce concepts students are learning, and will typically involve a pre-lab, post-lab, and/or a lab write-up, which will be required to complete outside of school. Labs will be performed in groups; however, every student is individually responsible for his or her learning experience. Students are responsible for writing down all data collected during labs and then completing post/pre-labs and lab write-ups outside of school on their own. Research projects and other projects will largely be done at home.

* Requirements and timelines for research papers and projects will be provided upfront to allow ample planning and completion time.

# Turning in Assignments

Assignments must be completed, presented, and/or turned in by the due date; otherwise, zero credit will be issued for the assignment.

# Late Assignment Policy

Any daily missed work (including homework, tests, quizzes, class notes, etc.) due to an excused absence will receive an extension (typically 24 hours) to allow students time to make it up. It is the student’s responsibility to find out what was missed and to decide to obtain any notes, handouts and make up work. Please note that this extension does not apply to those assignments (writing assignments, labs, or projects, for example) where a long-term timeline or due date was communicated earlier to students. Late long-term assignments will be issued zero or partial credit only, as determined by the instructor.

# Course Grading

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| **Course Work** | **Percentage** |
| Participation | 15% |
| Tests | 35% |
| Quizzes | 10% |
| Homework | 20% |
| Projects, Labs, Writing Assignments | 20% |
| **TOTAL** | **100%** |

# Academic Policies and Institutional Resources

**Academic Policies and Procedures:**

All student work (tests, quizzes, homework) will be returned within one week of submission, with minor exceptions. Writing assignments, labs, and projects will be returned within two weeks of submission. Please refer to Scottsdale Prep’s Family Handbook pp. 26-38 for more information on the academy’s policies.

# Additional Course-Level Specific Information

**Field Trip**

7th grade students will be going on a field trip this year as part of our study of Life. Further information will follow.

# Parent / Guardian Commitment:

Learning is not a school-only endeavor. It is important that the activities we do in the classroom are consistently reinforced at home. I would appreciate your commitment to directly support the following items from home throughout the year:

* Reinforce and remind your student about their ownership of their choices and consequences, and about taking responsibility for their actions and education
* Reinforce the importance of respecting others’ time, property, space, and learning environment
* Review and discuss nightly homework & corrected work or tests
* Encourage student note taking along with the use of notes for homework, test preparation, & lab activities
* Reinforce class material organization strategies (e.g., binder sections and their use as study aids)
* Reinforce and support all lab safety policies
* Support review of vocabulary terms and key concepts
* Ensure that your child promptly obtains books, supplies, and other assigned items
* Provide computer resources available as needed
* Oversee computer assignments and Internet usage outside of school
* Replenish school supplies as needed
* Avoid replacement fees for lost or damaged school materials by reinforcing respect and responsibility for others’ property (e.g., textbooks, etc.)
* Ensure that any incomplete/missing homework or in-class practice assignments, or behavior issues not closed by the end of the school day are addressed at home
* Realize that items contained in this packet and available electronically are subject to change

Please review the below items and sign:

* I’ve reviewed all materials in the syllabus and support the “Parent/Guardian Commitment” items.
* I will ensure that any behavior issues not closed by the end of the school day, will be addressed at home.

**STUDENT PRINT NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PERIOD #: \_\_\_\_\_**

**PARENT/GUARDIAN PRINT NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PARENT/GUARDIAN SIGNATURE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**