

<b>Course Title: LIFE SCIENCE IIIA</b>	<b>Course Description</b>
<p><b>Course No.</b> 3353                      <b>Grade level:</b> 9-12</p> <p><b>Text and Resource Options:</b>  A. <i>Pacemaker Biology</i>, Part I; Globe Fearon  B. <i>Exploring Life Science</i>, Part I ; Prentice Hall  C. <i>Globe Life Science</i>, Part I; Globe Fearon  D. <i>Life Science, Holt Science and Technology</i>, Part I; Holt Pub.  E. <i>Science Explorer: Cells and Heredity</i>; Prentice Hall  F. <i>Science Explorer: Bacteria to Plants</i>; Prentice Hall</p>	<p><b>Course Value:</b> *One Semester</p> <p><b>Credit Value:</b> 1 – 5 credits</p>
<p align="center"><b>Course Content: Key Content Standards and Course Objectives</b></p>	
<p>This course is based on a combination of the following life science and biology standards:</p> <ol style="list-style-type: none"> <li><b>Cell Biology:</b> All living organisms are composed of cells (7-1a-f), fundamental life processes of plants and animals depend on a variety of chemical reactions that are carried out in specialized areas of the organism’s cells (Biology: 9/12-1a-h), a typical cell of any organism contains genetic instructions that specify its traits (7-2), mutation and sexual reproduction lead to genetic variation (Biology: 9/12-2,3,4,5,8,)</li> <li><b>Physiology:</b> As a result of the coordinated structures and functions of organ systems, the internal environment of the human body remains relatively stable despite changes in the outside environment (Biology 9/12-9a-e, 10a-e), the anatomy and physiology of plants and animals illustrates the complementary nature of structure and function (7-5), plants and animals have structures for respiration, digestion, waste disposal, and transport of materials (5-2), organisms have variety of mechanisms to combat disease (Biology 9/12-10a-e).</li> <li><b>Evolution:</b> Evolution is the result of genetic changes that occur in constantly changing environments (Biology 9/12-8a-e), biological evolution accounts for the diversity of species developed through gradual processes over many generations (7-3), adaptations in physical structure or behavior may improve an organism’s chance for survival (3-3).</li> <li><b>Ecology:</b> Stability in an ecosystem is a balance between competing effects (Biology 9/12-6a-f).</li> <li><b>Investigation and Experimentation</b>  Students will ask meaningful questions and conduct careful investigations addressing the content of the above life science and biology standards.</li> </ol>	<p>This course will focus on the Grades 9-12 Biology/Life Science standards in addition to some of the Biology foundational standards. This course, along with Life Science IB, can fulfill the Alternative Education’s Biology/Life Science requirement for the high school diploma. Note that some exploratory activities are used, but the lack of facilities that conform to state safety guidelines for laboratories precludes many laboratory activities.</p> <p>*Open entry/open exit</p>
<p align="center"><b>Methods of Study</b></p>	<p align="center"><b>Evaluation of Performance Standards</b></p>
<ol style="list-style-type: none"> <li>Students will complete all activities assigned.</li> <li>Students will participate in discussion with other class members and/or teacher.</li> </ol>	<ol style="list-style-type: none"> <li>Students will complete all assignments with a minimum of 70% accuracy.</li> <li>The supervising teacher will be satisfied with the quality of the student’s work.</li> <li>The student must receive a minimum score of 70% on a teacher assigned final evaluation.</li> </ol>

LIFE SCIENCE IIIA  
Course Outline: 3353

**I. Textbook Assignment Options:**

A. *Pacemaker Biology*, Part I (5.0 credits)

- Read: Chapters 1-13.
- Complete: all “Check your Understanding” exercises.
- Complete: “Chapter Review” exercises (**Omit:** Research Projects)
- Complete one of the Extension Activities listed below.

B. *Exploring Life Science*, Part I (5.0 credits)

- Read: Chapters 1-14.
- Complete: all “Section Review” exercises.
- Complete: all “Chapter Review” exercises (**Omit** “Concept Mapping” and “Critical Thinking and Problem Solving” exercises).
- Select and complete **any two** questions from **each** of the “Concept Mastery” exercises.
- Complete one of the Extension Activities listed below.

C. *Globe Life Science*, Part I (5.0 credits)

- Read: Units 1-5.
- Complete: all Review exercises.
- Complete: all “Unit Reviews” (**Omit:** Section D).
- Complete one of the Extension Activities listed below.

D. *Life Science, Holt Science and Technology*, Part I (5.0 credits)

- Read: Units 1-3.
- Complete: all “Section Review” exercises.
- Complete: all “Chapter Review” exercises (**Omit** “Concept Mapping”).
- Complete one of the Extension Activities listed below.

E. *Science Explorer Series: Cells and Heredity* (2.5 credits)

- Read: Chapters 1 to 5.
- Complete: all “Section Review” questions.
- Complete: All “Reviewing Content” and “Checking Concepts” exercises.
- Complete two of the Extension Activities listed below.

F. *Science Explorer Series: From Bacteria to Plants* (2.5 credits)

- Read: Chapters 1 to 5.
- Complete: all “Section Review” questions.
- Complete: All “Reviewing Content” and “Checking Concepts” exercises.
- Complete two of the Extension Activities listed below.

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### II. Extension Activity Options:

1. Using the Internet, go to [www.google.com](http://www.google.com) to research “carbohydrates.” Write a 4-paragraph report based upon your research, and be sure to discuss some of the differences between *glucose* and *sucrose*. Use Writing Rubric Exp. III.
2. Using the Internet, go to [www.google.com](http://www.google.com) to research “vertebrates and invertebrates.” Create a table using MS Word to classify animals as vertebrates or invertebrates. List at least 5 examples of each in your table. An easy way to create a table is to click on “Table” in the Standard Tool bar, then “insert” and then “table.” The program will ask you how many columns and rows you want, and you will type in “2” for columns and at least “5” for rows since you will be including 5 examples. Click “OK” and a table will be created for you. Place headings over your columns and complete the table.

Vertebrates	Invertebrates

3. Create a PowerPoint presentation illustrating different types of plants that grow in Bakersfield. Your presentation must include at least 10 slides with labeled plants. Include a Title/Cover page in your presentation.
4. Teacher generated activity, approved by the site administrator.

### III. Evaluation

- See your teacher for a unit test.
- All Writing assignments must meet the proficient level of the rubric provided by the teacher.
- All textbook work must meet 70% accuracy level for a “C” grade.