DIVE Biology Teacher Guide

with Syllabus and Course Instructions

CD-ROM/Digital Download Version

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Welcome!

DIVE Biology is a complete, digital curriculum that can be used as an honors or standard high school course. Below you will find a brief overview of the course components. At the end is a step-by-step guide to setting up your course. You can either print or save these instructions to your desktop.

Honors or Standard High School Course?

If preparing for an AP Biology Exam use the eLearning format. While all DIVE science courses are designed as honors courses, they can easily be modified for use as a standard high school course by allowing students to use a review sheet or notes during exams. A review sheet is a piece of paper the student fills with information they pull out of notes, review questions, etc.

Earn up to 8 College Credits

Important: The self-paced eLearning course is recommended for CLEP & AP.

After completing DIVE Biology, we recommend Dr. Shormann's <u>CLEP Professor for CLEP and AP Biology</u>. This three to six week course provides excellent preparation for these exams which can earn up to 8 college credits. Learn more about <u>AP exams</u> <u>here</u> and <u>CLEP exams here</u>.

Course Setup Instructions

- 1. Watch the <u>Getting Started</u> video.
- 2. Critical: Bookmark the Assignment Chart with links to Reading Assignments & Digital Flashcards

Bookmarking the chart gives you direct access to the live, online document with updated links and instructions. The assignment chart includes links to internet reading assignments and digital flashcards.

- 1. Click this link: **DIVE Biology Assignment Chart**
- 2. In the browser menu, select **Bookmarks**, then **Add Bookmark**.

3. Print the Lab Workbook with Review Questions

If you purchased a hard copy of the Workbook, skip this step. To purchase a spiral-bound workbook in full color with free Priority Mail 2-3 day shipping, click here: Workbook & Lab Manual

If you did not purchase a hard copy, a printable PDF is included in your course. Follow these steps to print on 3-hole punched paper and place the copies in a 3 ring binder.

- 1) Go to Printable Materials (CD) or Documents (Download).
- 2) Find the Lab Workbook PDF, then:
 - Windows: double click to open with Adobe Acrobat. Select print.
 - Macs: right click and select Open With, then Preview.
- 3) Select Print and follow the onscreen instructions.

4. Optional: Save the Grade Calculator

- a) Open Microsoft Excel (Windows) or Numbers (Mac). If you don't have one of these, you can use OpenOffice Calc (free download at www.openoffice.org) or Google Sheets (also free at www.sheets.google.com).
- b) In your application, Go to File, Open File, and select the grade calculator file.
- c) Select **Save AS**, then save it to your Desktop with your student's name and **course title**.
- d) Type the grades in the appropriate cell. The spreadsheet will automatically weigh the grades and calculate a final grade.

5. Optional: Print the DIVE Glossary

Skip this step if you plan to to use the digital flashcards linked in the Assignment Chart. If you want your child to write the definitions, you will need to print the DIVE glossary. The glossary can be found under Printable Materials or Documents within the DIVE course.

6. Select a Reading Supplement

The DIVE Internet Textbook is linked in the Assignment Chart above. If you prefer a physical textbook, please see page 7 to select a textbook and print the reading syllabus.

Course Contents

Weekly Assignment Chart

The <u>Assignment Chart</u> schedules lessons, labs, and quarterly exams over 32 weeks. The chart has links to the Internet Textbook, vocabulary flashcards, and facts practice flashcards. There are typically two to three lessons per week and a video lab. Every 8 weeks a quarterly exam is completed. Be flexible! A standard school year is 36 weeks. If your student needs extra time, don't be afraid to give it to them.

Lessons

There are typically two to three lessons per week. Each lesson is made up of 5 parts:

1. Vocabulary

Students can learn the terms assigned in each lesson by using our new digital flashcards, handwriting the terms using the DIVE Glossary, or a combination of the two. Terms should be reviewed 3-4 days per week.

Digital Flashcards are a quick and easy way to learn and memorize terms. Hosted online, these flashcards provide a quick and easy way to learn and memorize terms. They also have games, quizzes, voice recordings of the terms and definitions and much more! A link to the flashcards is posted on the assignment chart.

The **DIVE Glossary** is used by those who prefer to handwrite their terms and definitions. The glossary can be found under Printable Materials or in the Documents folder. The glossary can be printed or viewed on the computer. After hand writing the terms, students can use the digital flashcards to review and memorize the terms.

2. Reading Assignment (on Assignment Chart)

The reading assignment provides a foundation for the lecture by giving the student a broad overview of the material. Keep in mind, Dr. Shormann will lecture on the more complex concepts. Therefore, it is not necessary to read for complete understanding. The main goal is to become familiar with the concepts presented.

3. Video Lectures (on CD or Download Files)

In the video lectures, Dr. Shormann teaches the more complex concepts. Students should take notes during the lecture, pausing and rewinding as necessary. Taking good notes is a critical skill for college preparation. However, most students have not had much experience. Be patient as this skill develops slowly. Some things your child should take notes on include titles and subtitles, definitions and important concepts, diagrams and tables with notes explaining them, and ALL practice problems.

4. Review Questions (in Workbook)

This is not a quiz. It is a learning activity that requires students to apply what they learned in the lecture, reading assignment, and the terms. This develops understanding and retention. Because this is a learning activity, the grades for the Review Questions are a small percentage of the overall grade.

Students should use their lecture notes and definitions (Quizlet) to complete the Review Questions.

The review questions are based on the lecture, reading and vocabulary (Quizlet Flashcards). This is not a quiz. It is practice to help the student learn how to apply what was taught in the lecture. Students should use their lecture notes and vocabulary to complete the Review Questions. Students should grade and correct the Review Questions using the video solutions found at the end of the video lecture, adding any missing information to their notes.

5. Facts Practice (on CD or Download Files)

These are <u>optional</u> quizzes that help students become better stewards by learning the names of (up to 40) biological facts. By the end of the year, you will have memorized the names of hundreds of organisms and parts of the human body. One of God's first commands to Adam was to name the animals, and if we are to care for His creation as He commands, at the very least we must know the names of some of the things He made.

Use the **Facts Practice Flashcards** linked on the Assignment Chart (see Setup Instructions at the end of this document) to learn and study the names. Study the Facts Practice flashcards 5-10 minutes per day, then take the Facts Quiz. While the quiz can be taken anytime, we usually do this on lab day. The quiz can be taken multiple times. **Record only the highest grade of all attempts in the Grade Calculator. The quizzes are graded but you must record the grade.** It is not stored on the CD.

Labs

Each week there is 1 video lab. While we recommend completing the labs hands-on using our lab kit, it is not required. In fact, watching the video labs without the kit will provide an excellent college preparatory lab experience. Both options earn one lab science credit.

Using Lab Supplies

You can either purchase the DIVE lab kit from Nature's Workshop Plus or create your own lab kit. Students first watch the video lab, then complete the lab with the lab supplies while filling out the lab activity sheet in the lab manual. **Important:** If completing labs hands-on, with the lab kit or with your own supplies, you must read these Lab Instructions.

Without Lab Supplies

With this option, the student views the video lab, working interactively by filling out the lab manual. Dr. Shormann does not give the answers during the lab. Students must make a hypothesis, record observations, and write up results.

Grade & Correct Labs

The student grades the lab activity sheet by watching the video solutions provided at the end of the video lab. We recommend giving a completion grade for the labs. This means if the video lab is completed, graded, and corrected, the students earns a 100.

Quarterly Exams

Exams are found in Printable Materials (on CD) or Documents (in Download). Every 8 weeks there is an exam. There are no other assignments due on the week of the exam. This gives the student a full week to study. Quarterly exams should be taken under parental supervision. The questions on the exams come from the Review Questions and the Vocabulary. Students get 2 attempts on each exam, and the scores are averaged. So, for example, if you only make a 70 the first attempt, you can try again. If you make a 90 the second attempt, your average would be 80. You get a bonus for putting in an extra effort and taking the exam a second time.

The DIVE course can be used as a standard or honors/advanced course, depending on how the exams are administered. Keep in mind, these are only our general recommendations. As the homeschool parent, you can determine what constitutes an honors course for your "school". Learn More: <u>Student Instructions</u> for Exams

Grade Calculator

Watch the **Introductory Lesson** video to familiarize yourself with the grading calculator. Following is a description of how the grades are distributed:

Notes and definitions (Worth 15%): Grade these based on completion. If your child took a good set of notes, give them a 100%. Deciding what "thorough" means is sometimes difficult. Some things your child should take notes on include titles and subtitles, definitions and important concepts, diagrams and tables with notes explaining them, and ALL practice problems. If you have more than one child working on the same DIVE Science course, give the better grade to the one with the more thoroughly completed set of notes.

Review questions (15%): A recommended point scale is given on the review questions. Give a percentage grade. For example, if an assignment had 25 total points, and your child missed 4 points, they made a 21 out of 25. Divide 21 by 25, and then multiply this by 100 to convert to a percent (84.0 % in this example).

Laboratory Assignments (20%): Grade these based on completion. If your child completes all topics covered on the DIVE Video Lab, then give them a 100%. Give lower scores for incomplete, sloppy or lazy work. For most students, lab is their favorite part of science, and lab should be an "easy A" for them. You may find it necessary to set a time limit of 2 hours for lab activities, and if your child has worked hard during that time, give them a 100 even if they don't complete everything.

Quarterly exams (50%): Students who took good notes and studied their definitions and review questions will do the best on exams. Most exam questions will be similar to the DIVE review questions.

If your child can correctly answer all the review questions, then they should do fine on the exam. Exam solutions are provided on the DIVE CD.

Grading Scale for Honors and Standard Course Options

Honors Course Grading Scale

A - 93-100

B - 84 - 92

C - 74 - 83

D - 65 - 73

F – 64 or below

I – Incomplete

Standard Course Grading Scale

A - 90 - 100

B - 80 - 89

C - 70 - 79

D - 60 - 69

F – 59 or below

I – Incomplete

Q&A Email Support with Dr. Shormann

If your child has a question about their course, they should email Dr. Shormann using this <u>contact form</u>. There is no need for you to dig through the book or try to figure out the correct answer. Your job should mainly be as a moderator, making sure students complete their work correctly and grade the quarterly exams. Dr. Shormann is the teacher and he is happy to answer any questions.

Struggling Student? We can help! <u>Time-Saving Tips for Success</u>

Most issues are easily solved by following the tips linked above. If you would like to speak with a consultant, please schedule a phone appointment.

Reading Supplements

Internet Textbook- Recommended

The DIVE Internet Textbook is our recommended reading supplement for both honors and standard options. Designed specifically for this course, the reading assignments are short and succinct with animations, videos, interactive graphics that make learning abstract concepts easier. The links to each weekly reading assignment are linked in the <u>Assignment Chart</u>.

Physical Textbooks

If you prefer a physical textbook, a Reading Syllabus with the exact page numbers to read in your book each week is available for the textbooks listed below. If there is an updated edition of one of the books listed below, and it remains a good supplement for our courses, we are happy to create a reading syllabus for you. Please allow 2-3 weeks for the syllabus to be created and posted here.

*Honors Textbooks (CLEP & AP)

The DIVE Internet Textbook, designed by Dr. Shormann specifically for this course, is the recommended reading supplement for those who want an honors course and/or plan to take a CLEP or AP exam. If you prefer a physical textbook, select one that has an asterisk next to it. If you plan to take a CLEP or AP exam, we also recommend taking Dr. Shormann's <u>CLEP Professor for CLEP and AP Biology</u>, after DIVE Biology.

Standard High School Textbooks

The DIVE Internet Textbook is our favorite reading supplement for standard courses, too! If you prefer a hard copy textbook, any of the texts below may be used. Our favorite traditional text is also BJU.

Bob Jones University Press-Favorite Physical Text

If you prefer a traditional textbook, BJU is our favorite. This publisher teaches from a Biblical, six day Creation worldview. With good graphics and short, succinct reading assignments, these texts provide all the reading required for an excellent, honors or standard level course.

- *Bob Jones Biology 5th Edition
- *Bob Jones Biology 4th Edition
- *Bob Jones Biology, 3rd Edition
- *Bob Jones Biology, 2nd Edition

Apologia Ministries

This publisher teaches from a Biblical, six day Creation worldview. Written in a conversational style, these texts have longer, more descriptive reading assignments than any other textbook on this list.

About five weeks of the concepts typically taught in an honors biology course is not in the Apologia Biology text. That reading material is found in the Apologia Human Body text. Therefore if you would like an honors course you should either complete the optional internet reading assignments on the DIVE Apologia Biology Reading Syllabus or add the Apologia Human Body text (see Reading Syllabi below).

Apologia Biology 1st Edition

Apologia Biology, 2nd Edition

Apologia Biology, 3rd Edition

- * Apologia Biology, 1st Edition with The Human Body, 1st Edition
- * Apologia Biology, 2nd Edition with The Human Body, 1st Edition
- * Apologia Biology, 2nd Edition with The Human Body, 2nd Edition

A Beka Publishers

This publisher teaches Biology from a Biblical, six day Creation worldview. With nice graphics and succinct reading assignments, these are great texts for a standard high school course.

Abeka Biology, 4th Edition

Abeka Biology, 3rd Edition

Abeka Biology, 2nd Edition

Other Christian Publishers

Christian Liberty Press Biology, 2nd edition

Science Shepherd Biology

Switched On Schoolhouse Biology, 2010

Secular Publishers

These texts are written from a secular, evolutionary worldview. Those with an asterisk can be used for an honors course.

*Campbell and Reece Biology, 9th Edition

*Campbell and Reece Biology, 7th edition

This is a secular college textbook. It is good for those who want a secular AP course.

Glencoe Biology, 2009

*Holt Modern Biology 2009

*Holt McDougal Biology 2010

Prentice Hall Biology, 2014

*Prentice Hall Biology, 2006 Edition

*Prentice Hall Biology, 2004 Edition

Raven et al., Biology, 7th edition

Troubleshooting

DIVE CDs and Digital Downloads are simply video and document files compressed on a CD-ROM. Therefore, any technical issues are simple and easily solved.

- 1. The video lectures won't open or play.

 https://diveintomath.com/techsupport
- 2. I can't open or print the workbook.

 Update Adobe Reader at get.adobe.com/reader and restart your computer.

Need Help?

If you have any questions about this information, please contact us. However, if you have questions concerning the content of your course (ie: what is DNA?), please contact <u>Dr. Shormann</u>.

sales@DIVEintoMath.com | 936-372-9216 | www.DIVEintoMath.com