



Teacher Guide

INTEGRATED

CHEMISTRY & PHYSICS

Stream & Download Format

Quick Start Setup Instructions

1. Parents & Students: Watch the [Getting Started Video](#).

2. Bookmark the [Assignment Chart](#)

Your student should open this doc each day to view and access assignments.

3. Download the Teacher Materials

An email with a download link to these files is sent within an hour or so of purchase. If you haven't received it, please do a search in your email for "*DIVE Download Link*". Check your spam and trash folders, too. If you need help: [Contact Support](#)

● Print the Lab Manual & the Workbook with Review Questions

There are two files you need to print. If you purchased or would like to purchase a [hard copy of the Workbook & Lab Manual](#) in color with spiral-binding and free 2-3 day shipping, skip this step. If you want to print it yourself, follow these steps:

- i. Find the files in the Documents folder in the Teacher's Material folder (above)
- ii. If using a Mac, right click and select "Open With" then "Preview".
- iii. If using a Windows computer, use Adobe Reader or similar to view and print the files.
- iv. Print the files on 3-hole punched paper and place the copies in a 3 ring binder.

● Grade Calculator

- Open your spreadsheet application (Microsoft Excel or Numbers). 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 [Google Sheets: Free Online Spreadsheets for Personal Use](#)).
- Open the Teacher Materials folder which should be on your desktop. Then, select **Grade Calculator**.
- Go to **File, Save As**, and rename it with your student's name (Joe ICP Grades). Then save it to your Desktop.
- Type the grades in the appropriate cell. The spreadsheet will automatically weight the grades and calculate a final grade.

● Vocabulary (Terms & Definitions)

- **Decide: Digital Flashcards or hand write the definitions:** Read the Vocabulary section under Lessons below. If you prefer to have your student write the definitions, print or save the [DIVE ICP Glossary](#)

4. **IMPORTANT:** Hands-On Lab Instructions

If using the Lab Kit or your own supplies to complete the labs, print and follow the [Lab Instructions](#) for every lab.

5. **Decide:** Honors or Standard High School Course?

DIVE Science courses can be used as an honors or standard high school course. See page 2.

6. **Select** a Reading Supplement on page 6.

Honors or Standard Course

Standard Course

Students use their notes on exams. While memorizing the material is not necessary, a good understanding of the material is required. The Quarterly Exams section below has detailed information on how to study for exams. When assigning the final grade, use the Standard Grading Scale on page 6.

Honors Course

Students use only a Review Sheet on exams. For details, see the Quarterly Exams section below. Use the Honors Grading Scale on page 6 to assign the final grade.

Schedule

The [Assignment Chart](#) schedules lessons, labs, and quarterly exams over 32 weeks. A typical school year is 36 weeks. This means there are four weeks that can be used when extra time is needed to understand a concept. Struggling Students can use the Timed Method: Work on the course a minimum of 4 days per week for 45 minutes to an hour per day. At the end of this time, if the assignment is not completed, have the student stop and pick up where they left off the next day.

Lessons

There are typically one to two lessons per week. Each lesson is made up of 4 parts:

1. Vocabulary (Terms & Definitions)

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.

Honors students should work on memorizing the terms for each week and continue reviewing terms from previous weeks for the quarter.

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**, located in the Parent/Teacher Materials is used by those who prefer to write their terms and definitions by hand. The glossary can be printed or viewed on the computer. After writing the terms, students can use the digital flashcards to review and memorize the terms.

2. Reading Assignment

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 Lecture

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

The review questions are based on the lecture and vocabulary. 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. Turn the lecture back on to grade the Review Questions using the video solutions at the end of the lecture. It is important to let the student grade the daily work as this is part of the learning process.

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 activity sheets found in the DIVE workbook. 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

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 grade for this exam is an 80. [Student Instructions for Studying and Taking Quarterly 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 DL/CD.

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 – 90
 C – 70 – 80
 D – 60 – 70
 F – 60 or below
 I – Incomplete

Q&A Email Support

Anytime your child has a homework or test question, they should contact [Dr. Shormann](#). There is no need for you to dig through the book or try to figure out the correct answer. Your job is to make sure students complete their assignments as instructed and to grade the quarterly exams. Dr. Shormann is the teacher and he is happy to answer any questions.

Struggling Student? We can help!

Most issues are easily solved by following the tips linked below. If you would like to speak with a consultant, please [schedule a phone appointment](#)

Tech Support:

- **Trouble viewing videos:** [Download and Stream Tech Support](#)
- **Trouble Printing:** Windows Users [Update or Download Adobe Reader](#)
- **Contact Tech Support** 936-372-9216 or [Email](#)

Select a Reading Supplement

Recommended Honors Textbooks*

The DIVE Internet Textbook, designed by Dr. Shormann specifically for this course, is the recommended text for those who want an honors course. If you prefer a traditional hard copy textbook, you can select any text below that has an asterisk next to it. The new Abeka Matter and Energy is our favorite physical textbook.

Recommended Standard Course Textbooks

The DIVE Internet Textbook is our favorite reading supplement for standard courses, too! If you prefer a physical textbook, any of the texts below may be used.

***DIVE Internet Textbook**

Specifically designed by Dr. Shormann for this course, the DIVE Internet Textbook provides all the required reading material. Animated graphics and videos make abstract concepts easier to understand. It can be used for an honors or standard course. The reading syllabus is embedded in the [Assignment Chart](#).

Reading Syllabi for Physical Textbooks

*Following is a complete list of textbooks we currently support. If there is an **updated edition of one of the books listed below**, and it remains a good supplement for this course, we are happy to create a reading syllabus for you. Please send an email with the Table of Contents, the copyright page, and a picture of the book cover to support@diveintomath.com. We cannot make reading syllabi for books not listed here.*

A Beka Publishers

This publisher teaches Integrated Chemistry and Physics from a Biblical, six day Creation worldview. These texts have nice graphics and succinct reading assignments.

***A Beka Matter and Energy, 1st Ed**

This new text includes all the required reading for DIVE ICP. With nice updated graphics and succinct reading assignments this text is great for a standard or honors course. There is only one edition of Abeka Matter & Energy. Here is the link to the book: [Matter & Energy](#)

A Beka Science of the Physical Creation, 2nd ed.

This text is lacking some of the required reading for our DIVE course. We have provided internet links for the missing reading assignments but don't recommend it for an advanced or honors course.

Bob Jones University Press

This publisher teaches from a Biblical, six day Creation worldview. With good graphics and short, succinct reading assignments, these text provide all the reading required for an excellent, honors level course.

***Bob Jones Physical World**

[*Bob Jones Physical Science, 4th ed.](#)

[*Bob Jones Physical Science, 5th ed.](#)

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.

[Apologia Physical Science 2nd ed.](#)

In 2010 colleges changed their requirements for IPC. While the DIVE ICP course meets these new requirements, the Apologia textbook is missing some of these topics. However, because the DIVE reading syllabus has internet links to the missing reading assignments, students can use this text along with DIVE ICP.

[Apologia Physical Science 3rd ed.](#)

Other Publishers

[CPO Physical Science, 1st ed.](#)

[Prentice Hall Physical Science, Concepts in Action with Earth and Space 2011](#)

[Prentice Hall Physical Science, Concepts in Action with Earth and Space 2009](#)

[PRENTICE HALL'S *Physical Science*, Concepts in Action ©2009 - No Earth Science Topics](#)