

Conceptual Academy

Instructor's User Manual



Note: This manual is for instructor's using the Conceptual Academy platform as hosted at ConceptualAcademy.com. If you are using the PocketLab Notebook platform, you'll want to review the support materials at ThePocketLab.com

Thank you for choosing Conceptual Academy. Within your instructor profile page you'll also find help videos describing topics within this manual.

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1. Brief Overview

Conceptual Academy is both a library of content and a platform for the delivery of that content. This platform can be embedded as an iFrame within Learning Management Systems, such as Canvas or Blackboard. However, we find Conceptual Academy works best when made available to students via a link that opens a second browser window or tab. *Importantly, a student's Conceptual Academy score is uploaded to your LMS only at the end of the semester (or unit) as a single assignment.* Thus, unlike a homework system, the benefits of integrating Conceptual Academy into your LMS are minimal. Much like the printed textbook, Conceptual Academy works well as a stand-alone resource. Indeed, the quickest way to describe Conceptual Academy is the “video version” of the traditional textbook.

And much like the traditional textbook, Conceptual Academy is a valuable tool for many teaching styles. For a straight lecture class, Conceptual Academy provides a “stereoscopic” view of the content for students, anytime anywhere—even on bad weather days and sick days. Further, precious class time can be focused on the more challenging concepts. For a class of team-based learning, Conceptual Academy is a means by which students can come to class prepared for student-centered activities. For an online class, Conceptual Academy serves as a centerpiece of online content delivery with its library of video tutorials complementing the written textbook.

How does Conceptual Academy work? How will Conceptual Academy be of help to my teaching? What am I to do next? We try to answer these questions within this manual. Thank you for taking the time to review our explanations.

From the start: When you sign into your instructor's account, you are first brought to your instructor's profile page. From this profile page you will see a series of tabs. You access the instructor tools available to you through each of these tabs.

- Click the “Edit” tab to update your profile information, including your profile image. Please note, your profile image can appear at the top of every FYI page (From Your Instructor). Consider a school logo if you don't want your face to appear. Also note, the “biography” information is not seen by students. Instead, we use this field to provide the user with links to various help resources first seen on the profile page.



- Click the “FYI Page Builder” tab to edit any of your pre-populated From Your Instructor (FYI) pages. An FYI page holds information that remains fairly static from one term to the next. This includes generic study advice, external links, PhET simulations, documents for download, and supplemental videos of your own.
- Click on the “Course Admin” tab to access the course grade book and course editor through which you can edit the contents of each lesson and set lesson dates.
- The “Syllabus Builder” tab holds more advanced tools including the tools for creating a Conceptual Academy course from scratch. This happens when you click on this tab directly. However, typically, you are brought to the builder when you click the edit/clone link within the Course Admin tab.



2. FYI Pages (From Your Instructor)

Click the “FYI Page Builder” tab. This brings you to a list of your many FYI pages. Click “edit” for a particular lesson (aka class) and you’ll be brought to its editor:

The screenshot shows the 'From Your Instructor' message editor. At the top, there are 'View' and 'Edit' tabs, with 'Edit' selected. Below the tabs are controls to 'Enable this FYI' and 'Disable this FYI'. The main heading is 'From Your Instructor Message'. There is a checkbox for 'Display Bio photo' which is checked. Below that is the 'Body (Edit summary)' section, which contains a rich text editor. The editor's toolbar shows 'Paragraph' and 'Styles' menus, and the font is set to 'Arial'. The text in the editor reads: 'Welcome to our Chemistry course as hosted by Conceptual Academy. For directions on how to navigate through this site, scroll down to the video in the Video Share. All the quizzes here at Conceptual Academy will serve as a single semester-long 600 point project. Each correct question answered by the lesson date (shown to the left) is worth 2 points. Each correct question answered AFTER the lesson date is worth only 1 point (50%). So you can earn points twice as fast if you don't fall behind. Collect a total of 600 points by the end of the semester and you'll have 600/600, which is 100% on this project. There's no penalty for wrong answers. Just keep taking quizzes to earn points. If you earn over 600 points, this is evidence of strong class participation. But keep in mind that each quiz can be attempted only once. This material is accessible. But only if you keep with it and avoid trying to cram it all in the night before the exam. Please do your best to stay on task. As per the syllabus, this Conceptual Academy project accounts for 20% of your overall course grade. But you will find Conceptual Academy to be a key study tool allowing you to perform better on the exams, which account for 60% of your overall course grade. The textbook is where you can read. Conceptual Academy is the "talking textbook" where you can watch and listen. Both of these should be your focus outside of the classroom. You'll use them to help you prepare for coming to class, where we'll be using another Path: p.MsoNormal > span'. Below the editor is a 'Text format' dropdown set to 'Full HTML' and a link for 'More information about text formats'. There are two bullet points: 'Web page addresses and e-mail addresses turn into links automatically.' and 'Lines and paragraphs break automatically.'. The next section is 'Document Sharing', which has a 'Document Sharing' header and a 'Show row weights' link. It contains a table with two rows of document thumbnails. The first row is for 'CC5e01 Pages.pdf' and the second is for 'CC5eSum01.pdf'. Each row has a 'REMOVE' button. Below the table is an 'Attach media' section with a 'Browse' link. The final section is 'Video Sharing', which has a 'Video Sharing' header and a 'Video URL' field containing 'https://vimeo.com/148811501'. At the bottom left of the editor is a 'SAVE' button.

View Edit

Enable this FYI Disable this FYI

From Your Instructor Message

Display Bio photo

Body (Edit summary)

Welcome to our Chemistry course as hosted by Conceptual Academy.

For directions on how to navigate through this site, scroll down to the video in the Video Share.

All the quizzes here at Conceptual Academy will serve as a single semester-long 600 point project. Each correct question answered by the lesson date (shown to the left) is worth 2 points. Each correct question answered AFTER the lesson date is worth only 1 point (50%). So you can earn points twice as fast if you don't fall behind. Collect a total of 600 points by the end of the semester and you'll have 600/600, which is 100% on this project. There's no penalty for wrong answers. Just keep taking quizzes to earn points. If you earn over 600 points, this is evidence of strong class participation. But keep in mind that each quiz can be attempted only once. This material is accessible. But only if you keep with it and avoid trying to cram it all in the night before the exam. Please do your best to stay on task.

As per the syllabus, this Conceptual Academy project accounts for 20% of your overall course grade. But you will find Conceptual Academy to be a key study tool allowing you to perform better on the exams, which account for 60% of your overall course grade.

The textbook is where you can read. Conceptual Academy is the "talking textbook" where you can watch and listen. Both of these should be your focus outside of the classroom. You'll use them to help you prepare for coming to class, where we'll be using another Path: p.MsoNormal > span

Text format Full HTML

- Web page addresses and e-mail addresses turn into links automatically.
- Lines and paragraphs break automatically.

[More information about text formats](#)

Document Sharing

Document Sharing [Show row weights](#)

File information	Operations
CC5e01 Pages.pdf	REMOVE
CC5eSum01.pdf	REMOVE

Attach media [Browse](#)

Video Sharing

Video Sharing

Video URL

SAVE



Importantly, any changes you make are only saved if you click the “SAVE” button at the bottom.

From the top, be sure that your page is “enabled” and indicate whether you want your profile image displayed.

The text box can be expanded by dragging the lower right-hand corner of the text box downward. Text you enter here is full HTML5 capable, which means you can add links to external sites or images. You’ll also see an html button in the header. This opens up an html code popup box allowing you to add html snippets. For example, this is how the PhET simulations are added to the FYI pages.

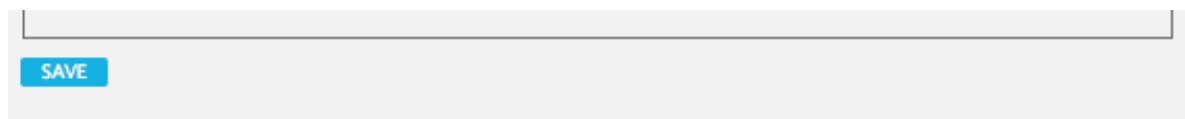
The Document Sharing (Doc Share) allows you to upload documents of a variety of extension types. You can also remove documents. For example, you might want to remove the unit practice exams we might have uploaded to the last FYI page of each unit.

The Video Sharing field allows the sharing of up to three videos per FYI page. This video needs to be hosted on a server, such as YouTube. If you have more videos to share, you can iframe them into the body of the FYI page using the html snippet.

Remember to click the SAVE button after making your changes.

We should note that this editor is not 100% WYSIWYG. It’s a good idea to double check the published FYI page to make sure the formatting is as you wish. In some cases, you might want to revisit the editor to fix any formatting issues, such as line spacing or font size.

SAVE!



3. Course Admin

Click the “Course Admin” tab and you’ll be brought to a list of all your presently published courses. Please note, a course automatically unpublishes itself 5 weeks after the final lesson date. You can publish/unpublish any course under "additional details" that you'll see upon opening the editor.

Conceptual Academy
Understanding Our Natural Universe

POCKETLAB LINKS ▾ MY COURSES MY PROFILE

Enroll In Another Course | Sign Out >

Home > CC admin

View Edit Gradebook FYI Page Builder **Course Admin** Syllabus Builder

Published **Ignore**

Course	Units	Classes	Members	Gradebook	Edit/Clone	Share
Chem 1306 Master	8	8	1 (Manage)	Gradebook	Edit/Clone	Share
Logan Chemistry	17	17	1 (Manage)	Gradebook	Edit/Clone	Share

class gradebook

Click the name of the course and you’ll be brought to the true student view.

Click the “Manage” link under members and you’ll be brought to a list of all currently enrolled students. It’s here that you can remove a student from your course. It’s also here that you can change the status of a student from “pending” to “active”. The pending status occurs when a student enrolls in your course through some back door pathways, which we have as a catch-all for students who neglect to enter sufficient data on our main registration page. Use the “Choose an Operation” drop down to change a student’s status. It’s a two step “execution” process to make sure you’re sure. Same with the removal of a student.

The "Share" link allows you to share your course with a colleague. For example, at some point, such as a sabbatical, you might need to hand off your course to another instructor. Within the share link you add that instructor's email and username. Upon sharing, you'll have just created a new instructor's account for your colleague. Within that account will be a clone of the course that you shared, which means it's identical except for that it's not populated by any students. Your colleague will use a new course ID unique to their instructor's account.



4. The Grade Book

With simplicity in mind, we left out an instructor's ability to drill down to see how a student performed on individual quiz questions. Please contact us if a student believes their score on a particular quiz needs to be adjusted. This can happen if the student finds an error in our test pool. We aim for a perfect test pool, but because it's so large, errors do occur, usually due to a formatting error.

If you're running Conceptual Academy as a semester long project, then you'll be most concerned with the overall "Total Points Earned" for each student from the Homework Practice Session, reading and video quizzes all combined. You can click on the Homework, Reading Check and Video Check tabs to see point totals for each of these quiz types.

The screenshot shows the Conceptual Academy Gradebook interface. At the top, there is a navigation bar with the Conceptual Academy logo, "POCKETLAB LINKS", "MY COURSES", and "MY PROFILE". Below this is a breadcrumb trail: "Home > Conceptual Chemistry, Contextual > Gradebook". The main heading is "Conceptual Chemistry, Contextual unit totals".

There are several tabs: "View", "Edit", "Gradebook" (selected), "Outline", "Delete", "Revisions", and "Group". Below these are "Totals", "Video", "Reading", "Homework", and "Settings". A pink arrow points to the "Settings" tab with the text: "allows you to change point system and other settings including your threshold".

Below the tabs, there is a button "Calculate Unit Totals" with a pink arrow pointing to it and the text: "manually updates scores (Particularly useful to update inactive students)".

The main data table has columns for "Total", "Unit A", "Unit B", "Unit C", and "Unit D". Each unit column has sub-columns for "Pts Possible", "Threshold", "Pts Earned", and "Percent". The "Total" column also has "Pts Possible" and "Threshold".

Annotations on the table:

- A pink circle around the "Total Pts Possible" value (4920) with the text: "Total points possible with current point settings".
- A pink circle around the "Total Pts Earned" and "Total Percent" values (748, 74.80) with the text: "Most important data (pts total)".
- A pink arrow pointing to the "Percent" value (118.40) for Unit A with the text: "Turns blue when unit threshold has been met".

At the bottom left, there is a "CSV" button with a pink arrow pointing to it and the text: "export to .csv. Great for back-up and end of term export of scores".

	Total		Unit A		Unit B		Unit C		Unit D		
	Pts Possible	Threshold	Pts Possible	Threshold	Pts Possible	Threshold	Pts Possible	Threshold	Pts Possible	Threshold	
	4920	1000	1150	250	1376	250	1416	250	978	250	
		Pts Earned	Percent	Pts Earned	Percent	Pts Earned	Percent	Pts Earned	Percent	Pts Earned	Percent
Adams, Amy		748	74.80	296	118.40	194	77.60	186	74.40	72	28.80
Alfonso, Diana		626	62.60	390	156.00	236	94.40	--	--	--	--
Alvarez, Hannah		61	6.10	45	18.00	16	6.40	--	--	--	--
Andrews, Jesse		3674	367.40	858	343.20	1022	408.80	1068	427.20	726	290.40
Andrews, Matt		2554	255.40	716	286.40	640	256.00	674	269.60	524	209.60
Barker, Lisa		79	7.90	79	31.60	--	--	--	--	--	--
WILLIAMS, STACY		346	34.60	100	40.00	96	38.40	118	47.20	32	12.80

Scroll to the bottom of the grade book view and you will see an export CSV button, which is useful for large enrollment classes. You may need to tab or space delimit the data in your spreadsheet application. Rather than exporting as a .csv, you can also just copy/paste the data from the table into your spreadsheet, which is handy for small enrollment classes.



Downloading this data need only be done at the end of the semester for the student's final score on their Conceptual Academy project. However, you might find yourself downloading the data at times during the semester as a progress report. For example, you might generate a bar graph to share with students so they can see how they're doing as a class. It's also useful to scatter plot CA points against an exam score. With a large class you'll find a rough correlation between the two. Mostly, such plots are useful for flagging students who have been putting in a lot of energy into their reading and video assignments, yet are not earning reasonable exams scores.

You can set smaller point thresholds for each unit rather than a single large point threshold for the entire course (see "settings"). The unit scores are also useful in cases where you want to see how the student collected points over the semester. If you see an even distribution of points earned per unit, then you're looking at a diligent student. If a student has waited till the end of the semester to collect points, then the unit view will show this. This is handy in cases of a borderline grade.

Lastly, the number of points possible is specific to your course. It's dependent upon the number of chapter sections included in your lessons and also your quiz settings, such as 2/1.



5. Syllabus Editor and Cloning

The Syllabus Editor (accessed from the Course Admin tab) is used primarily to organize your course and to set the dates of each lesson. Each of these dates is also the due date for the quizzes. Importantly, your course name and course ID are set by you within the first two fields. This Course ID needs to be unique, a single word, and also easy for students to "get" and enter when they register. For example, if your last name is Smith and you are teaching Spring 2026, you might use: SmithSp26.

When a student registers with your Course ID they are automatically enrolled into your course. If we have set up an "instant access" program with your campus, then the student will see no enrollment fee paywall. For such a program we need only be put in touch with your bookstore manager.

The screenshot shows the 'Syllabus Builder' interface for a course titled 'Life Science Chemistry'. At the top, there are navigation tabs: View, Edit, Gradebook, FYI Page Builder, Course Admin, and Syllabus Builder (which is highlighted). Below the tabs, the text 'Editing syllabus *Conceptual Chemistry, Life Science*' is displayed, along with a link 'Create new / view all'. The main content area includes a 'Course Name' field containing 'Conceptual Chemistry, Life Science' and a 'Course ID' field containing 'LSC'. Below these fields is an 'Additional details' section with a link 'here to publish/unpublish'. The 'Life Science Chemistry' section is expanded, showing three units: 'Unit A : Elements of Chemistry', 'Unit B : Atomic Bonding', and 'Unit C : Chemistry of Solutions'. Each unit has a visibility icon (an eye) next to it. A pink arrow labeled 'visibility' points to the eye icon for Unit B. At the bottom of the interface, there are three buttons: 'Save Schedule', 'Re-Number', and 'Clone'. A pink arrow points to the 'Clone' button with the text 'Clone after a semester to create course for subsequent semester'. Another pink arrow points to the 'Re-Number' button with the text 'Click if you have re-shuffled chapter sections'.



After clicking the “clone” link for a particular course, enter a new course name and a new Course ID. All the modifications you made to the original course will be included. After a successful clone, your next step is to visit the syllabus editor and modify the dates for the subsequent term. The cloned course is then ready for a fresh batch of students. You’ll need to give these students the new Course ID you created.

Within the syllabus editor you assign a unit letter and number to each chapter section. For any chapter section you don't want included, assign "none".

As an example, in the following screenshot you'll see chapters 7 and 8 organized within a single unit called "Unit C: Chemistry of Solutions". Within this unit there are four lessons: C1, C2, C3, and C4, where a "lesson" consists of several chapter sections. For your assistance, you'll see the total video minutes and number and types of questions for each chapter section. If you need help with this system, don't hesitate to contact us at Support@ConceptualAcademy.com.

Unit C : Chemistry of Solutions

Repeat first option

Module	Lesson	Section	Section Questions: Video= Reading= HPS= Total Video=
C	1	6.8 Molecular Polarity (Plus Chapter Review)	Video=6 Reading=1 HPS=14 Total Video: 21:28
C	1	7.1 Dipole Attractions	Section Questions: Video=15 Reading=2 HPS=38 Total Video: 34:44
C	2	7.2 Solutions	Section Questions: Video=6 Reading=0 HPS=11 Total Video: 10:44
C	2	7.3 Concentration and the Mole	Section Questions: Video=6 Reading=2 HPS=22 Total Video: 13:17
C	2	7.4 Solubility	Section Questions: Video=12 Reading=2 HPS=29 Total Video: 22:49
C	2	7.5 How Soap Works	Section Questions: Video=3 Reading=1 HPS=6 Total Video: 4:41
C	2	7.6 Softening Hard Water	Section Questions: Video=6 Reading=1 HPS=5 Total Video: 13:07
C	2	7.7 Purifying Drinking Water (Plus Chapter Review)	Section Questions: Video=6 Reading=1 HPS=31 Total Video: 10:24
C	3	8.1 Open Structured Crystals	Section Questions: Video=6 Reading=1 HPS=13 Total Video: 6:54
C	3	8.2 Melting and Freezing	Section Questions: Video=12 Reading=2 HPS=27 Total Video: 26:35
C	3	8.3 The Stickiness of Water	Section Questions: Video=9 Reading=0 HPS=18 Total Video: 21:47
C	4	8.4 Liquid and Gaseous Phases	Section Questions: Video=12 Reading=2 HPS=28 Total Video: 26:59
C	4	8.5 Water's Specific Heat	Section Questions: Video=12 Reading=2 HPS=29 Total Video: 30:00
C	4	8.6 Phase Changes and Energy	Section Questions: Video=12 Reading=1 HPS=15 Total Video: 18:52

> Generate Unit Exam

Lastly, at the bottom of each module you'll find an amazing feature "Generate Unit Exam", which runs off the same engine as the Homework Practice Sessions (HPS).



6. The Conceptual Academy Student Project

It works well to refer to Conceptual Academy as a semester-long or unit-long “project” rather than as “homework”. The essence of this project is for the student to keep up with their reading and video assignments. They are provided credit for doing so by way of Conceptual Academy’s reading and video quizzes. Students can also earn credit through the “Homework Practice Sessions” (HPS). As described elsewhere, an HPS is essentially a practice exam that goes on for as long as a student might wish.

Each student is given the task of collecting a certain number of points by the end of the term, or by the end of each unit as determined by the instructor. You’ll find “by the end of the term” much easier to implement. For a typical course there are well over 2000 questions available to the student. At 2 pts each, this equates to about 4000 points available. These questions are automatically collated to your class schedule by our assessment tagging system.

As a starting point, you might require your students to earn 800 Conceptual Academy points by the end of the term. Each correct answer before the lesson date earns the student 2 points. After the lesson date, the student can only earn 1 point (50%). We call this a 2/1 system. As the instructor, however, you can set these point values as you see fit through the “Settings” tab within the class gradebook. You can even change the values on the fly during the semester. For example, you might offer a “triple week” when you feel the students are deserving or as warranted. For an announced 7 days, you change the settings to 6/1 so that a student earns triple points for each correct answer before the lesson date. As described in our Handbook of Class Activities, this is just one of the creative ways you can use the Conceptual Academy point system to encourage your students to stay on task. The goal is simply to provide students credit for staying on task. All diligent students should be able to earn full credit on their Conceptual Academy project.

Note: In changing a quiz point setting you are only changing the rate at which students earn points for upcoming quizzes they take. There is no effect on points earned from quizzes already taken. Also note: Each quiz can only be taken once. For a student repeating the course, they’ll need to write to Support@ConceptualAcademy.com to have their quizzes reset.

With a 2/1 system, even if it’s past the lesson date, students can still earn credit for earlier lessons, though at only 1 point per correct answer. This provides a built-in flexibility that



students appreciate. Yet, they are also rewarded for staying on pace, which earns them 2 pts per correct answer. Students also appreciate having that “due date” incentive. This Conceptual Academy student project is a fully online project and should be worth around 10% to 30% of the overall course grade. But of course, even with this point system, students will need periodic encouragement from the instructor to remain on task. Posting a recent class bar graph helps in this regard.

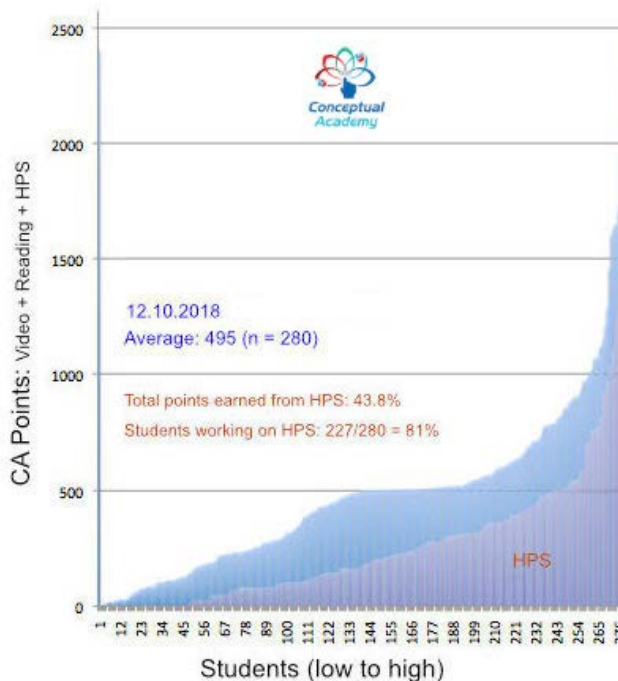
You might also consider setting a “point threshold” for each *unit*. For example, you might require each student to earn 200 points for each unit. All students who earn this 200 points (or more) receive full credit (100%) for each unit. This method helps to minimize cases where the student doesn’t start into their Conceptual Academy project in earnest until a week before the end of the term, which is too late to be able to catch up at a rate of only 1 point per correct answer and given that each quiz can only be attempted once. However, assigning a threshold for each unit also means more work for you, the instructor. Rather than holding students accountable to each unit, there are other things you can do to assure student compliance throughout the semester, such as:

- Require a student to earn at least 30% for points to count toward the total. For example, if a student earns 392 points from the HPS, but has an average of only 20% on the HPS (because of random guessing), then those 392 points won’t count toward the point total.
- Set a 2/0 system so that students can no longer earn points after the lesson date. We generally advise against this, but it is a way to add more “stick” to an otherwise “carrot” approach.
- Review point totals every couple weeks to flag students who are not on task. Then approach those students to see how you might help them to overcome any barriers they may be facing.

We have found the Conceptual Academy points to be a quantitative measure of student attitude, rather than aptitude. Thus, as you review student scores during the semester, you'll have a gauge on which students need your added attention. For some perspective, below is a bar graph of point totals for a chemistry class of college liberal arts majors. The shape of this bar graph is typical of what we see across campuses and shows the broad spectrum of student study habits. Notably, it also shows how many students choose to exceed the point threshold even though doing so offers no point benefit.



You should find it no mystery that students typically prefer our video presentations over our textbook paragraphs. However, both the videos and the paragraphs are important, which is why Conceptual Academy provides students credit for both video AND reading assignments. All this to ensure students come to class prepared to learn.



7. Conceptual Academy Assessment Types

There are three types of quizzes available through Conceptual Academy. This includes the Lesson Reading Quizzes, the Video Quizzes and the Homework Practice Sessions.

Lesson Reading Quiz

A set of easy-to-answer questions collated from the chapter sections of each lesson. There is one “lesson reading quiz” for each lesson. These are designed to provide the student credit for having studied the paragraphs of the textbook. In many cases, the question is printed right within the margin of the textbook while the answer is highlighted within the paragraph. The “Reading Check” question at Conceptual Academy is the multiple-choice version of that question.

Video Quiz

A set of easy-to-answer questions relating to a particular video. Each video has a video quiz consisting of one to three questions. These questions focus on the content of the video, which will be similar to the content of the corresponding textbook chapter section. In most cases, a student who has studied the textbook chapter section, may be able to do well with the video quiz without watching the video. This is by design to minimize any busy work. We don’t want the student watching the video if they don’t need to watch the video. Similarly, the student might be able to do well on a lesson reading quiz without reading the textbook but after watching the videos. Ideally, a student works with both the textbook and the videos, which together provide the student a stereoscopic view of the material.



Homework Practice Session (HPS)

There is one Homework Practice Session (HPS) for each lesson. The HPS is an important follow-up activity for the student after having studied the reading and video assignments for that lesson. The questions of the HPS are relatively difficult. Plus, there are many of these questions—sometimes over 100 in a single session.

The goal of a homework practice session is PRACTICE. The HPS system provides ample opportunity for exactly that. We liken it to practicing basketball. While practicing on the court, the basketball player should be taking chances, making mistakes, and learning from those mistakes. While practicing, the player should not be limited in the number of shots they're allowed to throw. Also, the player should only practice for as long as is efficient. Push themselves, yes, but not to the point of exhaustion. When efficiency is lost, it's best for the student to stop and take a break. Come back later to practice again when fresh.

The same holds true for the Homework Practice Session in which the student is encouraged to take chances, make mistakes, and learn from those mistakes. A session should go for as long as is reasonable for that student, which can vary from day to day. For each correct answer, 2 points are earned. They'll also hear a rewarding clicker sound. There's never a penalty for any wrong answer. There's no penalizing buzzer either, just silence.

Each question is first presented in a short answer format. The student's free response is not graded, nor recorded in any database. Rather, it serves as a warm up to the multiple choice version of that question, which always comes next.

If a student is averaging about 55% on a set of HPS questions, then this is admirable. It shows they're trying to answer the questions without first looking up the answer, which is good. It also shows that the student isn't simply random guessing. Look out for those students who are simply random guessing, which tends to happen with students who have put off this assignment to the end of the semester.

Students should also be encouraged to work with others on their HPS questions, which make for an excellent study group activity. You should also consider having students work in teams on their HPS questions right during class. Direct them to a round robin format where one student at a time presents their question to teammates for advice. This works particularly well in that all HPS questions are delivered randomly. This means that students working together will see different questions on the same topics. Do this toward the beginning of the semester so that students quickly learn the value of their Homework Practice Sessions.

8. Conceptual Academy as an Optional Resource

The number one of concern of most students is “How do I earn points?” If you make Conceptual Academy purely optional, very few students will use it. Just like if you made homework purely optional, that wouldn't happen either, except for a select few unusually motivated students. Thank you for requiring students to earn points at Conceptual Academy. In many ways, this levels the playing field for all students.



9. Step 1 / Step 2 Learning

As described in our Handbook of Class Activities, we are advocates of “Step 1/Step 2” model of learning. Step 1 is where the student is being introduced to material, such as through the textbook and video tutorials. Step 1 is an input process. You’ll note the mouth is closed. Step 2 is an output process where the student tries to articulate (output) that which they think they learned from Step 1 through activities such as presentations and homework. Of these two steps, Step 2 is arguably the more difficult. Students tend to avoid Step 2 or neglect its importance. Learning, however, is only deep and durable when BOTH Step 1 and Step 2 have been employed. For students, these ideas are explored much further in our “How to Study Effectively” document. We place this guide to studying within the Doc Share of the first FYI page of each Conceptual Academy course.

10. Practice Page Worksheets

These are pencil-pushing minds-on activities available in most all Doc Shares. In a way, they are similar to a lab experience, except it’s all on paper (Analog!). Our goal in creating these Practice Pages is to provide an enjoyable venue through which the student can *apply* what they think they understand. Please note: It’s not like the student already understands something and then should be able to do the worksheet. It’s the other way around. The understanding evolves only when the student is working on the worksheet.

This is similar to the end-of-chapter questions and the HPS. The student may ask: How can I answer these questions if I don’t first understand the material? They have it backward. The real question is: How can you understand the material if you don’t first work on these questions? The understanding itself arises from working on the questions. After Step 1? After reading the book and watching the videos? Some students feel they “got it” and simply don’t need to go any farther. Wrong! A stronger student will sense they still don’t really understand. That’s correct. That’s a wise student. This wise student appreciates that the understanding will grow like a seed from the soil only when watered by a stream of well-placed questions (Step 2). This is all “formative”.



11. Putting It All Together

Conceptual Academy is a system of content delivery with encouragement-based assessments. In using this system, students are provided credit for staying on task. This improves the rate at which your students come to class prepared to learn. In turn, this provides you license to use class time to focus on the more challenging concepts. It also provides you the wiggle room to explore more class activities where your students are engaged with the content, yourself, and their classmates.

However, you should also be encouraged to change nothing about the way you teach. If you've been teaching for a number of years, you've already keyed into techniques that work quite well for your personal teaching style. If you make any changes, if you do, then keep them minimal. Of course, when we try to change too much at once, we risk everything falling flat on its face. A few small changes from one semester to the next is the best practice. Evolution, not revolution, is the best route to healthy professional development. Slow, methodical, yet successful progress keeps our teaching careers fresh and exciting—the opposite of burn out. This benefits not only ourselves but our students too.

We know you will find your Conceptual Academy course to be rich not only in content but in flavor. For students who use our resources, our goals go beyond imparting knowledge. Like you, we aim to nurture a life-long curiosity about this amazing natural world in which we are blessed to live. We know this to be an important path to becoming good stewards. Further, the rules of nature are what we all have in common. As this world gets smaller, a focus on what we have in common becomes all the more important. Further still, understanding science for what it is, for what it can do, for what it can't do, for how it, for better or worse, has impacted our daily lives, is critically important for any student in this modern age.

We are pleased and honored to be working with you. For any questions, please write to Support@ConceptualAcademy.com. Thank you for your support. Good science to you!

-- The Conceptual Team

