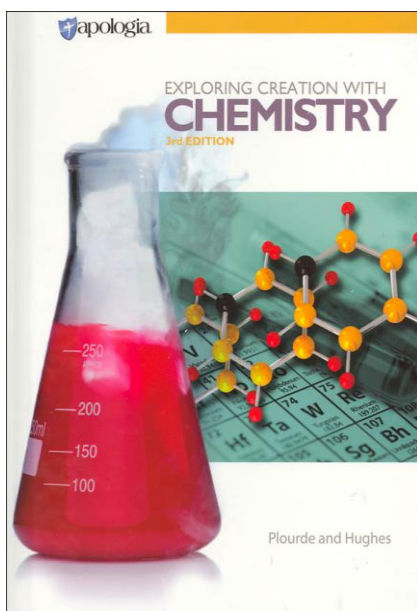


Apologia “Exploring Creation With Chemistry” 3rd Edition Lapbook Journal



This Lapbook Journal has been specifically designed for use with the book, “Exploring Creation with Chemistry” 3rd Edition by Apologia Science.

Designed by
Cyndi Kinney
of Knowledge Box Central
with permission from Apologia Science



Exploring Creation With Chemistry 3rd Edition Lapbook Journal
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This book is dedicated to my amazing family. Thank you to my wonderful husband, Scott, who ate a lot of leftovers, listened to a lot of whining (from me!), and sent lots of positive energy my way. Thank you to my daughter, Shelby, who truly inspired me through her love for learning. Thank you to my parents, Judy and Billy Trout, who taught me to trust in my abilities and to never give up.



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Knowledge Box Central

www.knowledgeboxcentral.com

Welcome to our Lapbook Journal for Apologia's Exploring Creation
With Chemistry 3rd Edition

We are very pleased to offer this product, as authorized by Apologia

So...now you bought it...what do you do with it?

I'll try to answer your questions here. Please note that there are several ways to use our Lapbook Journal, and the BEST way is the way that works for your student.

First, purchase a 4 inch 3-ring binder, and divide it into 4 sections. Your dividers should be labeled as follows:

On Your Own Journal (OYOJ)

Review Questions (RQ)

Practice Problems (PP)

Lab Reports (LR)

You may use the acronyms if your label space is limited.

Now you have your binder ready....so what next?

It's time to print! As for the order or printing...you may choose to print needed pages as you finish one module and begin the next...or you may choose to print everything up front. The choice is yours, but I would suggest marking off some time to print it all at once....that's just my opinion. Obviously, your time will dictate what you print when.

You will find 16 files within this product. These will consist of one file for each module of the book. Within each of these files (one per module), you will find the following:

1. On Your Own Journal Pages
2. Review Questions Lapbook Pages - Booklet Templates
3. Review Questions Lapbook Pages - Background Pages
4. Review Questions Journal Pages
5. Practice Problem Journal Pages
6. Lab Reports (Supplies, Introduction, & Procedure filled out already)
7. Lab Reports (No information already filled in...only the report itself with the title of the experiment at the top)

Now I will go into detail about how to print each of these files, what type of paper to print them on, and how to use them.

As I said on the previous page, there are 16 files (one for each module of the book) included in this product, and within each of these files, you will find the following:

1. On Your Own Journal Pages
2. Review Questions Lapbook Pages - Booklet Templates
3. Review Questions Lapbook Pages - Background Pages
4. Review Questions Journal Pages
5. Practice Problem Journal Pages
6. Lab Reports (Supplies, Introduction, & Procedure filled out already)
7. Lab Reports (No information already filled in...only the report itself with the title of the experiment at the top)

1. On Your Own Journal Pages

Supplies Needed: Regular White Copy Paper (unless you desire differently)

These pages will be solely devoted to the “On Your Own” questions that appear throughout each of the modules. Instead of the student having to re-write the questions in a notebook, we have provided the questions in a “Notebooking” styled setting. There will be ample space for the students to answer the questions within these Journal Pages, and the borders and graphics provide a decorative page for documenting learning.

We recommend that these pages be printed on regular, white paper. There is no need to print these pages on any special type or color, unless that is your preference.

For each module, print these pages, and file them all together under your “On Your Own Journal Pages” divider tab. As your student comes to these questions, he will go to this section to document his answers.

IMPORTANT NOTE About Next Section:

*NOTE: There are **TWO DIFFERENT OPTIONS** for the **Review Questions** – they are the **Lapbook Pages** **OR** the **Journal Pages** – depending on your student’s preference. **There is NO NEED TO PRINT BOTH!!!!***

IMPORTANT NOTE About THIS Section:

*NOTE: There are **TWO DIFFERENT OPTIONS** for the Review Questions – they are the Lapbook Pages (#2 & 3) **OR** the Journal Pages (#4) – depending on your student's preference.
There is NO NEED TO PRINT BOTH!!!!*

HOW do I know which one of these options to use???

*** If your child enjoys hands-on projects, scrapbooking, crafty projects, etc., then you will probably want to use the Review Questions Lapbook Pages and their Background Pages (#2 and #3).

*** If your child does NOT enjoy these types of hands-on projects and would rather have a journaling-style area for documenting the answers to the Review Questions, then you will probably want to use the Review Questions Journal Pages.

You may change after a few modules. You may even want to use both...but not at the same time...just every other module.

2. Review Questions Lapbook Pages Booklet Templates & Background Pages

Supplies Needed: Regular White Copy Paper, Colored Paper, White Cardstock Paper (if desired), Glue, Scissors, Metal Brad Fasteners (if desired), Ribbon (if desired), Staples

This section is used with the Review Questions at the end of each module of the book. Instead of writing the questions and answers in a regular notebook, the student would complete these booklets to place in his binder.

This section provides more of a “hands-on” opportunity for your students. It is similar to the traditional lapbooks, but there are no folders in which to place the booklets.

SPECIAL NOTE: Remember, *IF your student DOES NOT want to create the lapbook booklets, we have added another option for the Review Questions, and that is the Review Questions Journal in section 4.*

Review Questions Lapbook Pages Booklet Templates & Background Pages...cont.

We recommend that you print these on the following types of paper:

- * Review Questions Lapbook Pages Booklet Templates: colored paper, any weight (we use 24#, multi-colored paper)
- * Review Questions Lapbook Pages Booklet Templates Instructions: white copy paper (these will ultimately be thrown away, so the weight of the paper isn't important)
- * Review Questions Lapbook Pages Background Pages: white cardstock (These can be printed on white paper, if you prefer. We print on white cardstock because it is more durable, holds the weight of the booklets, and holds up to years of "thumbing through" the pages.)

These lapbook-style booklets will provide a 3-dimensional aspect to your student's learning experience. Science has proven that the more senses a student uses when learning and reviewing new material, the more he will retain. So, by adding this section, your student will be able to use his own hands to create these memories. Also, the colors and shapes of the booklets will stimulate memory.

At the end of each module, allow the student time to create these booklets, and place them randomly (be creative!) on the Review Questions Lapbook Journal Background Pages (print as many copies of these as you need).

This is the most time consuming portion of the Lapbook Journal, and I know that time is very precious. So, if you simply cannot make time for creating ALL of the booklets, or if your student is at first resistant to this hands-on method, you may choose to have your student only complete a few of the booklets...maybe the ones that cover areas in which he needs extra study.

Allow the student to have fun with this section. As he cuts, glues, and folds, he will be creating something to look back on for years to come. He will also be creating something that will be WONDERFUL when it comes time to review! There is NO better way to learn, in my opinion, than for the student to be intensely involved in the process by using his hands.

3. The Review Questions Lapbook Background Pages – *SPECIAL NOTE:* You will need to print as many of these as necessary. How many you need depends on how many booklets that your student made. Allow your student to arrange the completed booklets in any order he desires – be creative! You may need a bunch of these pages printed if he really gets the hang of this!

4. Review Questions Journal Pages

Supplies Needed: Regular White Copy Paper

This section is OPTIONAL and **could** replace the Review Questions Lapbook Pages. These pages will be solely devoted to the Review Questions that appear at the end of each of the modules. Instead of the student having to re-write the questions in a notebook, we have provided the questions in a “Notebooking/Journal” styled setting. There will be ample space for the students to answer the questions within these pages, and the borders provide a decorative page for documenting learning.

If you choose to use these pages, print them, and file them all together under your “Review Questions” divider tab.

5. Practice Problems Journal Pages

Supplies Needed: Regular White Copy Paper

These pages will be solely devoted to the Practice Problems that appear at the end of each of the modules. Instead of the student having to re-write the questions in a notebook, we have provided the questions in a “Notebooking/Journal” styled setting. There will be ample space for the students to answer the questions within these pages, and the borders provide a decorative page for documenting learning.

If you choose to use these pages, print them, and file them all together under your “Practice Problems” divider tab.

6 & 7. Lab Reports

Supplies Needed: Regular White Copy Paper

This section is where the student will document all of the work done on the lab experiments within each module.

I conducted a poll before finalizing this section. I wanted to know if parents would like the Lab Reports to be partially completed....or whether they would rather have the student write in all of the information themselves. The responses were split right down the middle. Then, a really smart mom emailed and said, “Why don’t you just put both formats in the Lapbook Journal?” So....that’s exactly what I did!

There are **2 different sections of each file** that are devoted to Lab Reports. There will be a section that gives you Lab Reports with the Experiment Title & Number, Supplies, Introduction, & Procedure already filled in. The back of these reports has no information filled in – this is where the student will document his observations, conclusions, etc. and draw any diagrams necessary. The other section gives you Lab Reports with ONLY the Experiment Title & Number filled in...the rest is blank. So, choose which works for you. You may even want to try both...or you may change midway through the year...or depending on your time that week. The choice is yours!

Print these on regular white paper, unless you WANT to print them on cardstock. They are meant to be printed double-sided, but feel free to print them as a 2-page report, if that works better for you (or for your printer!). PLEASE NOTE: Some Lab Reports are longer than others (3-4 pages max), so be aware when printing. File them in the “Lab Reports” section, and refer to them each time your student performs a lab experiment.

BOTTOM LINE:

Here is what your 3-ring binder will look like:

- ** Section 1: On Your Own
- ** Section 2: Review Questions (either the lapbook booklets OR the journal pages)
- ** Section 3: Practice Problems
- ** Section 4: Lab Reports

ONE OTHER OPTION:

I have had a few moms tell me that they would RATHER divide their notebook into 16 sections – one for each module. These moms said that they put all of the above mentioned items in order in EACH section of the notebook.

The choice is yours.



Knowledge Box Central

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Frequently Asked Questions:

1. What if I don't have enough time to do all of this? What's ok to leave out?

If you are really pushed for time, please don't feel that you have to "do it all!" I am cursed with this syndrome, and it rears its head every time I get in a new piece of curriculum. YOU alone know what is best for your student, school, and family.

With that said, I'll say this. If I had to choose something to omit, I would probably first allow my student to use the Lab Reports that are partially filled in. This will save a lot of time...and frustration on the part of the student. If I still needed to omit something, then I would probably allow the student to answer some of the Review Questions either using the journal pages or verbally and only do some of the Lapbook Pages. However, I would be sure to NOT choose the lapbook booklets that deal with the easiest subject matter to leave out. I would allow the questions that deal with the easiest subject matter to be answered orally or via the journal pages, and require that the others be answered within the booklets.

2. What if I only have white paper, and I cannot afford to get (or don't have time to get) colored paper or cardstock?

We have made suggestions as to the colors and paper types that we would suggest, but they are ONLY suggestions. If your daughter is really into pink, and everything has to be pink...then print the whole thing on pink! If you are cramped for extra money, and you only have white paper, then print it all on white! I assure you that the color of the paper will not KEEP your child from learning. There is scientific research to support the improvement in memory when using colored paper, but who says the child can't color the paper themselves (the lapbook booklets)...draw pictures on them...make them his own. Or...just leave them white. The choice is ALWAYS yours.

Frequently Asked Questions...continued...

3. My friend wants to use this Lapbook Journal too. Can I let her use my copy? Oh, and my Co-op might want to use it too.

Our copyright states that any Ebook or CD is purchased for use by ONE household. If your Aunt Mary, Cousin Martha, and all of their children live in YOUR household (God Bless You!), then that includes them. You may print as many copies of the material as you need from the Ebook or CD for those in your household. However, PLEASE do not share these with friends and family who do NOT live with you.

As for Co-Ops, we do have a Co-Op License available. All you have to do is purchase the Ebook or CD version of the product as well as the Co-Op License through our website. In the “comments” section of the purchase, state which product(s) will be used at the Co-Op. That’s it! It doesn’t matter how many children are represented in your Co-Op....print away!! I assure you that it’s WAY less expensive than for each family to purchase their own copy. You can all split the cost, and it comes out great for everyone.

4. Why are there very few color graphics in this product?

After much research, we believe that the children of this generation are visually over-stimulated. Between video games, internet, and television, there is very little left to the imagination. While colors play an important role in memory and retention of information, OVER-stimulation with colors has just the opposite effect.

Research ALSO shows that colored shapes have an effect on the memory that is amazing. Students will remember colored shapes much more than they will remember colored graphics on white paper.

Another reason.....colored ink costs homeschool moms TONS!

Without colored graphics, students will create their own! Allow them to draw pictures, color the borders, use their imaginations.

For these reasons, we have chosen to use few color graphics. We feel that this decision, although not the popular one, will benefit your students in the long run.

Frequently Asked Questions...continued some more...

5. My child doesn't like lapbooks, so why use this product?

If your child has never used lapbooking, he may not know what he's missing. However, if he just doesn't want to do it – no how and no way – then we have included “Review Questions Journal Pages” to replace the lapbooking portion of the product. They are included within the product, right after the lapbooking section.

6. What if I don't have a printer, or my printer isn't working?

Most print shops will allow you to email your document to them for printing. Or, you may choose to burn the Ebook to a CD and take it to them for printing.

7. Is it OK to burn the Ebook to a CD?

Yes, absolutely! In fact, I would suggest it. My computer crashed last year, and I lost SO many wonderful homeschool products that were in Ebook format!! (still crying!)

8. What if I'm not creative, crafty...etc....and I don't really want to be?

That's ok. Not everyone enjoys working with “hands-on” products. That's why this product will work for you! All of the planning is done, and the instructions are written so that the student can read and follow them without assistance from an adult!

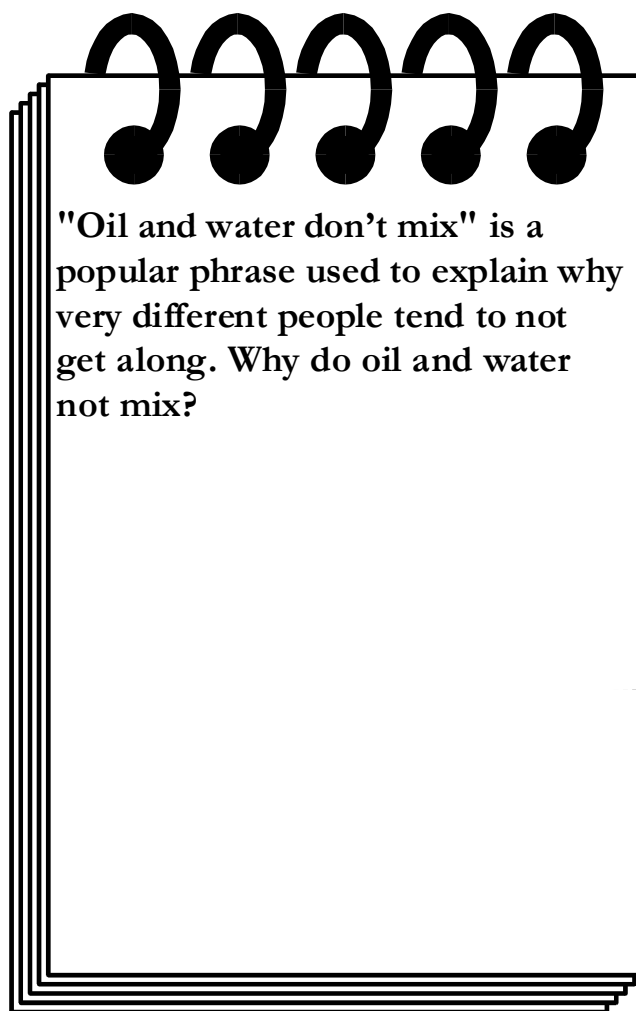
1.1 A student measures the mass of a bag of sand to be 9,321 g. What is the bag's mass in kg?

1.2 If a glass contains 0.465 L of water, what is the volume of water in mL?

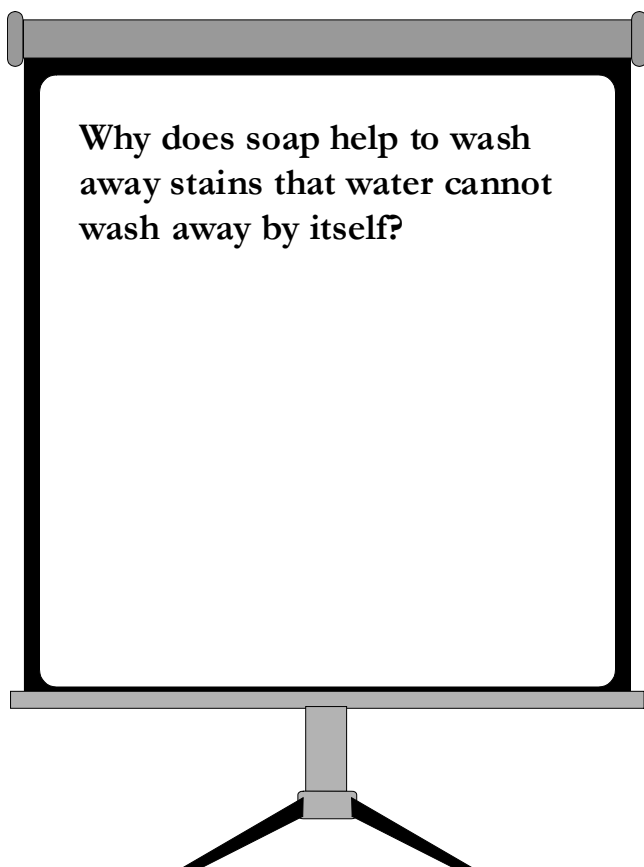
1.3 On a professional basketball court, the distance from the 3-point line to the basket is 724.0 cm. What is this distance in meters?



Question# 9



Question# 10



Chemistry 3rd Edition - Module 6

Review Questions Journal

1. What is the difference between a chemical change and a physical change?
2. Explain the difference between dissolving and reacting. For example, baking soda dissolves in water, but baking soda reacts with vinegar.
3. Why are you warned about using aluminum foil in experiment 6.1?
4. One type of phase change we did not discuss is sublimation. Sublimation occurs when a solid changes directly into a gas, without passing through a liquid phase. Does sublimation occur when something is heated or when something is cooled?
5. If a liquid goes through a phase change and all you know is that the molecules slowed down and moved closer together, what phase did the liquid turn into?

Exploring Creation With Chemistry 3rd Edition

Lab Report Experiment #7.1

Date: _____

Name: _____

Purpose: To measure the width of a molecule

Materials:

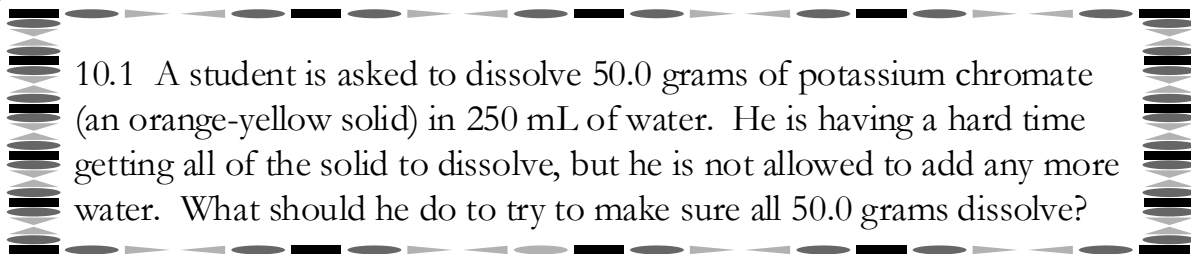

- | | | |
|----------------------|---------------|----------------------|
| * Safety goggles | * Eyedropper | * Stirring rod |
| * Water | * Large glass | * Graduated cylinder |
| * Dishwashing liquid | * Large bowl | * Pepper |
| * Ruler | | |

Question: Can the width of a molecule be measured?

Hypothesis:

Procedure:

1. We've already learned that atoms and molecules are small, but exactly how small are they? We're going to use the mole concept we just learned to get a rough idea. To do this, you first need to fill your large bowl almost full of water. Leave only a centimeter or so from the top of the water to the rim of the bowl. Put the bowl of water where it will be easy to work with but won't be disturbed while you perform the next few steps.
2. Quantitatively measure out 5.0 mL (1 teaspoon) of the dishwashing liquid into your graduated cylinder.
3. Leaving the dishwashing liquid in the graduated cylinder, fill the cylinder up to the 50.0 mL (1/4 cup) mark with water. Do it slowly to reduce the formation of bubbles.
4. Pour the entire contents of the cylinder into the large glass.
5. Now that the cylinder is empty, fill it up to the 50.0 mL (1/4 cup) mark with water and pour it into the same glass.
6. Repeat this step 6 more times, so that a total of 395.0 mL (2 cups) of water and 5 mL (1 teaspoon) of dishwashing liquid are in the tall glass.
7. Stir the contents of the glass slowly but thoroughly. By performing the preceding steps, you have **diluted** 5.0 mL of dishwashing liquid to 400.0 mL.
8. Next, you need to calibrate your eyedropper. To do this, first clean and dry your graduated cylinder.
9. Use your eyedropper to transfer 10.0 mL of the diluted dishwashing liquid (*drop by drop*) into the graduated cylinder. Count how many drops it takes to fill the cylinder up to the 10.0 mL mark.
10. Divide the number 10.0 by the number of drops you counted. The result represents how many mL are in each drop of your eyedropper. Your answer should be somewhere between 0.060 mL and 0.020 mL. You have used your graduated cylinder to calibrate your eyedropper so that you can figure out how many mL of liquid are in each drop of the eyedropper.



10.1 A student is asked to dissolve 50.0 grams of potassium chromate (an orange-yellow solid) in 250 mL of water. He is having a hard time getting all of the solid to dissolve, but he is not allowed to add any more water. What should he do to try to make sure all 50.0 grams dissolve?

10.2 A chemistry lab is storing several bottles of a solution made by dissolving methane gas in octane, a nonpolar liquid. The laboratory chemist notices that every once in a while, the lids from the bottles pop off. She reasons that the lids are popping off because the gas that is dissolved in the liquid is escaping from the solution. What can she do to stop the lids from popping off?
