**Magnet Biochem Unit 6: Stereoisomers and Chirality- Distance Plan**

After struggling with how to best teach a unit that always takes a great deal of “hands-on” time in class, I’ve decided to reduce the depth of the material and make this a short (6-7 day) unit. I’ve found some good online resources. I believe it’s worth getting a basic understanding of the concepts, regardless of the content depth. These concepts are fundamental to understanding things like enzymes and pharmacology. To best understand chirality and stereochemistry, a model kit is highly recommended. However, since we’re not in school and you don’t have access to the kits, an inexpensive homemade model could be easily constructed using things such as: toothpicks and (4 different colored) “jellybeans” (or some other material that a toothpick can penetrate). There are also 3-D modeling sites online (just do a google search). Sarah emailed me about one recently and she said it works great on Chrome: [https://chemagic.org/molecules/amini.html](https://nam03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fchemagic.org%2Fmolecules%2Famini.html&data=02%7C01%7Csusan.phillips%40cobbk12.org%7C1fb79a775f3d47aa18a208d7ca90f12b%7C2fce1dfb919f4938aab8c47f0fc9182d%7C0%7C1%7C637200596181413025&sdata=mqVNRgj3WpXDbbfYgD%2BxJfzQLxIgVgTM0dNXtpEcVBw%3D&reserved=0)

**Assignments:** I have posted some videos, below, and you need to watch them in the order listed. Note that some of the videos are **required** and others are recommended. Just keep in mind that you are responsible for knowing the information and will be tested on it (how we’ll do that will be determined later). Again, I have greatly reduced the depth that these topics are covered, compared to previous years.

You will be assigned questions about these concepts, including book questions.

-**Before you do anything else**, you must create a subfolder in your HerbFest Google Drive folder and title it: **Unit 5**. All assignments must be submitted to this folder, unless you are other wise instructed (I’m highly considering making a Google Classroom if we’re out of school much longer and will send a Remind if I do).

-**For assignments, including book questions**: I will adapt (reduce) the # of questions required and post the assignments, with due date, on my blog at least a day before they are due. You have until 11:59 PM to submit an assignment to your folder on the due date.

Book questions: answer the questions on a separate sheet of paper. Make **SURE** that at the top of the page you have: **1) written your name** (legibly); **2) written the Assignment Name** (Ex: Ch 15- Day 1 Book Questions). Clearly # each questions. Take a picture and upload to folder.

Worksheets, you have 3 options. 1) You may either print it, answer questions, take picture(s) and then upload; or 2) download the WS and directly type/ write on it, then upload; or very, VERY clearly put your answers on a separate sheet of paper, following the same directions specified above for submitting bookwork. \***Significant deductions will be taken if directions are not followed.**

**VIDEOS:**

1. Leah4sci.com: This is the link for the entire series: <http://leah4sci.com/chirality-stereochemistry-enantiomers-diastereomers-r-s-organic-chemistry-tutorial-series/>. We’ll likely only watch a few of these (**REQUIRED**).
   1. Here they are, individually (this is the order they should be viewed):
      1. <https://www.youtube.com/watch?v=yZ8JDDnyxC4> **REQUIRED**
      2. <https://www.youtube.com/watch?v=WW6oAqVNBR8> REQUIRED (you’ll need your book see chart p. 427)

Now **video #3** is where it gets tricky. We’ll give video #3 a “go” and I’ll see how it goes. It is **HIGHLY ADVISED** you stay ON-TIME with your work and that you **ATTEND THE VIRTUAL CLASS** (likely Thursday). This is also where a homemade toothpick model will be EXTREMELY helpful. Write down all questions you have before our session…I **cannot** (and won’t even attempt) **to explain this through Remind**!

* + 1. <https://www.youtube.com/watch?v=KoAnGRlCG_M> (**REQUIRED)**
    2. <http://leah4sci.com/finding-r-and-s-when-group-4-is-forward-2/> (TBD, but getting thru #4 is my goal)

For # 5-7, we’ll see…I’m hopeful

* + 1. <http://leah4sci.com/r-and-s-configuration-for-lengthy-complex-substituents-2/>
    2. <http://leah4sci.com/fischer-projection-r-and-s-stereochemistry-trick/>
    3. <http://leah4sci.com/newman-projection-stereochemistry-r-s-trick/>

Here’s #8 (just in case): <http://leah4sci.com/polarimetry-in-optical-activity/>

**Recommended videos**: If you’re still “fuzzy” on the concepts, here are some other good ones you can find on YouTube (I’m sure there are plenty more!):

-Organic Chemistry Tutor

-Chem Survival

-Kahn Academy

**Remember**: assignments and dates due are ON MY BLOG and being modified DAILY. ***STAY UP WITH YOUR WORK!***

If we’re not back in school by April 1, we’ll likely have an online quiz over these Unit 5 concepts on Friday, 4/3.

**Other Information:**

Please remember, projects are worth TWO TEST GRADES and due on 4/16 (\*UPDATE: changed to 4/23). I’ve given y’all over a week to work on them, so I’m sure they will be awesome! All HerbFest information is on my blog. We should know by sometime next week if project presentations will be “in person” at school, or if projects will be submitted online. Let’s not speculate about that until we have a better idea.

The Unit 4 Test will be the DAY AFTER we go back to school. I will change things if the circumstances warrant it.

Wishing all of you and your families the VERY BEST. Stay healthy and safe…there’s nothing more important than that!

---Mrs. Phillips