

**7th Grade
Lesson Plan
Packet**

5/25/2020-5/29/2020

Remote Learning Packet

There is no need to submit this packet at the end of the week. Enjoy your summer break!

Week 9: May 25-29, 2020

Course: Texas History

Teacher(s): Mrs. Hunt (natalie.hunt@greatheartsirving.org)

Mrs. Malpiedi (patricia.malpiedi@greatheartsirving.org)

Monday, May 25

Happy Memorial Day! No School!

Tuesday, May 26 - Friday May 29

- Kolaches, a tasty fruit or cheese filled pastry, arrived in Texas with Czech immigrants in the mid 1800's. Use the recipe in this packet to bake kolaches for your family!
- Read "Working on an Oil Rig: Questions with Mr. Bernardo" (starts on page 3)
- Write a list and make a map of places in Texas to one day visit with your family. Here are some destination ideas based on what we have studied this year:
 - Cities
 - Austin - The Capitol Building, the Bullock Museum (home to La Belle, the ship of French explorer La Salle. You might visit Fort St. Louis by the coast too, though little remains), the Lady Bird Johnson Wildflower Center
 - Fort Worth - The Stockyards
 - Fredericksburg - National Museum of the Pacific War, Pioneer Museum
 - San Antonio - The missions, including the Alamo of course! Many are connected by a biking trail.
 - Waco - Waco Mammoth National Monument, Texas Ranger Hall of Fame & Museum
 - Historic Sites
 - Gonzales Memorial Museum - where the original cannon is on display
 - Pecan Point - site of the first American settlers in Texas
 - San Jacinto Monument - site of the battle which won Texas its independence
 - Washington-on-the-Brazos State Historic Site - where the Texas Declaration was signed
 - Parks
 - Big Bend National Park
 - Stephen F. Austin State Park and San Felipe de Austin State Historic Site - the place Austin established as Texan settlers' headquarters while he was an empresario
 - Other
 - The Alabama-Coushatta Reservation in Polk County
 - Czech Stop - I-35 Exit 353

Bohemian Kolaches

(recipe from Taste of Home)

Prep Time: 30 min + rising time

Bake Time: 10-15 min

Yield: ~28 rolls

Ingredients:

- 2 packages (1/4 ounce each) active dry yeast
- 1/2 cup sugar, divided
- 2 cups warm 2% milk (110° to 115°)
- 5-3/4 to 6-1/2 cups all-purpose flour
- 4 large egg yolks, room temperature
- 1 teaspoon salt
- 1/4 cup butter, softened
- 2 cups canned prune, poppy seed, cherry or lemon pie filling
- 1 large egg white, beaten

Instructions:

1. In a small bowl, dissolve yeast and 1 tablespoon sugar in warm milk; let stand 10 minutes. In large bowl, combine 2 cups flour, remaining sugar, egg yolks, salt, butter and yeast/milk mixture. Mix until smooth. Add enough remaining flour to make a stiff dough.
2. Turn out onto a floured surface and knead until smooth and elastic, 6-8 minutes. Add additional flour, if necessary. Place dough in greased bowl, turning once to grease top.
3. Cover; let rise in a warm place until doubled in bulk, about 1 hour.
4. Punch dough down and allow to rise again.
5. Roll out on floured surface to 1/2-in. thickness. Cut with large glass or 2-1/2-in. cutter. Place on greased baking sheets; let rise until doubled, about 45 minutes.
6. Firmly press indentation in center and fill each roll with a heaping tablespoon of filling. Brush dough with egg white.
7. Bake at 350° for 10-15 minutes or until rolls are light golden brown.



Working on an Oil Rig: Questions with Mr. Bernardo

*Thank you, students, for submitting your questions for Mr. Bernardo a few weeks ago.
Please enjoy reading his responses and seeing his photographs.
Optional videos of tasks and of a rig move will be available on Google Classroom.*

TABLE OF CONTENTS

Questions about the job.....	page 4
Questions about living at the rig site.....	page 7
Questions about the oil industry.....	page 8
Photographs.....	page 9






QUESTIONS ABOUT THE JOB

How long have you been workin on an oil rig?

1 year, 2 months

Which part of the crew are you, a derrickman, a driller, a motorman, or something else?

Floorhand. Here are all the positions:

Position (in order of rank)	Job
<p>Floorhands (2-3 on a rig)</p>  <p><i>Mr. Bernardo holding a pressure washer wand.</i></p>	<p>Clean rig, perform all tasks on rig floor: drilling, tripping in and tripping out (pulling pipe in and out). Assist Motorman and Derrickman at more advanced tasks. Clean up after repairs. They do all the grunt work and anything that involves heavy lifting or getting dirty. They usually stay on the rig floor most of the day.</p>
<p>Motorman</p>	<p>They are the rig mechanics. They make all the repairs, monitor oil levels. There are three big motors that the rig relies on and they make sure they are properly maintained. The unofficial job of the motorman is to be the driller's eyes. Since he doesn't have a permanent spot he can walk around and see who's slacking off and what not. He also loads and unloads all the supplies with the forklift, and makes a checklist of supplies.</p>
<p>Derrickman</p>  <p><i>Derrickman stands here to rack (pull) back the pipe</i></p>	<p>The derrickman stands on top of the 'pits' (look like dumpsters with platforms on top). He mixes all the chemicals, makes sure the mud weight is correct. (You can get fired if the mud is the wrong weight, as it can cause a hole to cave in). The derrickman also goes on the board (see picture, that yellow platform). He climbs about 150' high and racks back the pipe or pushes it forward depending on whether we are going in or out of the hole.</p>
<p>Driller</p>  <p><i>The driller shack, located on the rig floor.</i></p>	<p>The driller sits in the driller shack. He takes orders from the company man, uses his years of knowledge to monitor numbers on a screen, make sense of things you can't see. He has done all the positions so he tells people better ways of performing tasks. The driller controls the top drive which is a gigantic drill. He controls the big hand-like machine that connects the pipe together. He takes all the responsibility if anything does wrong even, if he did not make the mistake</p>

Tool Pusher	He used to be a driller. He orders supplies, orders any kind of machine part. He takes his orders directly from the company man and higher-ups in our company. He's in charge of managing everybody from our company as long as they are on our location. He gets rid of the bad workers and can promote or demote people under him. He also takes responsibility whenever something goes wrong.
Company Man	He works for a different company, the company we contract for (ex. Shell, Exxon Mobile, EOG). He represents the big company and makes all the decisions on behalf of them. He's the guy who hires and fires our company as a whole. If we all get fired they call that 'stacked'. It happens when our contract is finished if they're not happy with us or if they don't have any more money to continue.

How many pounds do you have to lift to be a floor hand?

50-100 by yourself. If it's too heavy usually somebody will help you or you'll use a hoist or forklift. A hoist is a cable with a hook that can lift more than 2000 pounds. It's hooked up to the top of the rig and uses hydraulics.

Do you dig new holes every time to retrieve oil?

Yes that's what we're hired for.

What happens when a hole caves in?

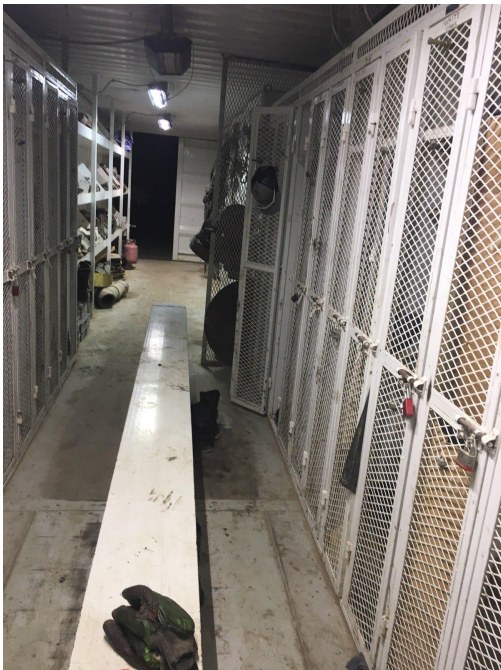
That happened to our last hole. It took a month to figure it out. We tried drilling through it again, drilling around it, and also filling up the cracks with some kind of chemical mix to make it more solid. It happened another time and they drilled around that area.

How long does it take to drill a hole 21,000 ft deep?

2-3 weeks if everything goes well. Sometimes the bit gets dull, or the pieces above the bit that give us information break and we have to trip in/trip out, making it take longer.

How much oil do you pump out in one day?

Don't know. We never get to that point. After we move the rig and leave, the completion crew deals with that. That's when you see pumpjacks and tanker trucks instead of a rig.



The change house

What is the typical day on the job for oil rig workers? What time do you have to wake up?

Day Shift

- 5:00AM Wake up, eat, put on PPE (coveralls, helmet, boots, h2s monitor)
- 5:30 Safety meeting, We discuss today's tasks and recent injuries from other rigs
- 6:00 Swap out with night crew (aka 'relief'), exchange info on current tasks.
- 6:00 AM - 6:00 PM Current Task
- 6:00 Take off PPE, shower, eat
- 9:00 Sleep

Possible Daily Activities

Activity	Difficulty Level	How often we do it	Description
Drilling	Easy	Could be 12 or 14 day hitch or 1	Make connections and clean rig with pressure washer in between
Tripping In/Out	Hard	At least every 4 days, sometimes all 14 days of hitch. Takes up to 48 hours depending on how deep we are	Pull all pipe out or put it all back in. This part is why we get paid \$23.50 starting pay.
Run Casing	Easy	Every couple of weeks	That's when we're done with each section. Casing is the pipe used to pull out oil. We use drill pipe daily.
Walk Rig	Medium	once every three weeks	The whole rig walks, or slides about 5 meters to the next hole. We usually have three holes next to each other
Rig Move	Medium	once every few months	Take apart rig and put it one by one in trucks and move to different location

How does it feel on the oil rig?

It's usually that you're either hungry, tired, mad, too cold or too hot, but poking fun at people makes you forget about it.

Is the rig very big?

We work on medium and large rigs. The big rigs (harder to work on) are 3-4 stories high, the medium sized rigs are 2-3 stories high.

Is your job hard?

Took me 4 months to get physically in shape; mentally it's a choice. Everybody feels like quitting twice a week. People break down and leave about once a month.

In your time as an oil rig worker, what is the most difficult or dangerous position that your job has put you in?

One time I worked extra on a different rig. The rig manager said, "Get off the rig floor." Then I saw him run down the stairs. I started running too. As soon as we got down a piece of the rig blew 30 feet above the rig.

We prevented a blowout (where a huge pocket of gas causes oil to shoot out), but did it wrong and almost burned down the rig in the process. Had the wind gone the other way we would have burned down.



Have you ever had an accident on the oil rig?

Crushed my finger once. Now it's permanently bent. It's my own fault because you're not supposed to put hands on between pinch points. I wasn't awake yet that day. Many people who have been in the business for more than 7 years have seen somebody die. It was more dangerous back then.

Story: We were in a rig move once. I heard somebody yelling in agony off the top of his lungs. Our derrickman yells, "Somebody's dying." We all rush to a spot where they were moving a part of the rig with the crane. A guy goes "Five foot bar, five foot bar." Somebody grabs a 5-foot bar. As we move the 5-foot bar we hear more yelling. Finally we move the 5 foot bar to a spot where the guy stopped yelling. Apparently some guy had a finger caught between a metal piece that was being moved. That guy wasn't even supposed to be there.

Has someone ever fallen in a hole?

Haha, no. There are lots of safety precautions around the hole. If we're not drilling it's either sealed with a device on top or we have a hole cover. What's more likely is that we drop a small metal object in there and the whole crew gets in big trouble.

Do you get to work on the Gulf coast?

No. Not much drilling there after that big oil spill. I worked on a rig with all Louisiana workers who had worked in the Gulf coast and got laid off after all those rigs went away.

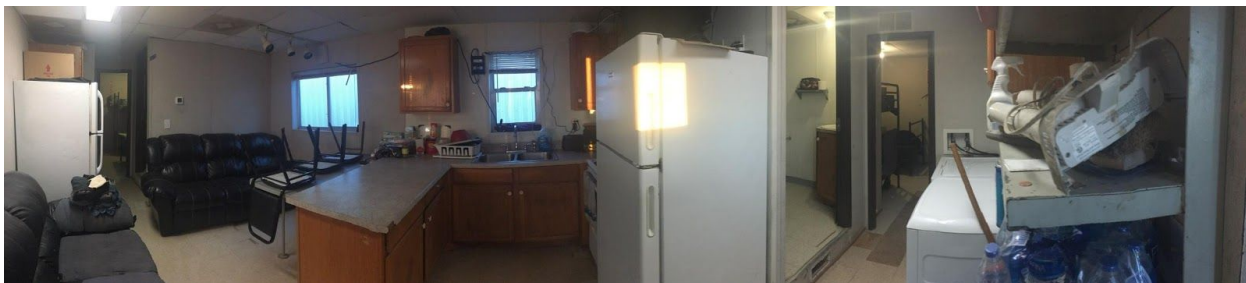
Do you like your job?

I like the money, and feel good after we do something hard, but it's hard and painful.



The drilling hole, before the rig goes on it.

QUESTIONS ABOUT LIVING AT THE RIG SITE



Do you have two homes? There and in a different location?

Yes. 14 days in West Texas, 14 days at home in Irving, Texas. I go from no Donut Shops to more than a dozen.

Do y'all have to eat spam and pineapple juice? What's the food like?

Hahaha. We eat whatever we bring to the rig. Mostly frozen food because it's quick. I don't like cooking anything fancy because it takes too long and I'm usually pretty tired at the end of the day. If you work offshore, though, they cook for you, you get a lunch break and they do your laundry.

How do you get food?

We bring it to the rig.

Since it is far away from stores, do you have to make sure you have enough supplies? If you run out of something, are you able to go to the store or do you have to wait it out?

Yes. Best if you can do enough for 14 days but most people go to Walmart in the middle of the week. You lose sleep doing that.

Do you miss living in the city?

I still live in the city. We work 14 days on and then I go live in Irving where your school is.

Do you bring books with you or do you not have much time to read?

I tried and was too tired after work. I've got like 3-4 hours of free time after work before we really should sleep. But between laundry and making food I just watch TV or hang out and then sleep.



The rig, behind the trailers where the crew and company men live.

QUESTIONS ABOUT THE OIL INDUSTRY

Where does the oil go after it's pumped? The gas station?

I never see that part but I think it goes to the refinery and then the gas station.

As you know, the oil industry is not dying, but always changing. However, there have been substitutes to oil on the rise, such as solar power, nuclear power, ethanol, etc. and though these substitutes are not going to overtake the oil industry anytime soon, there is considerable public momentum to increase their utilization. What do you think about these substitutes, or, what is your opinion on them?

It would be great if that could happen. I think batteries have to be much better before wind and solar power will be useful. Elon Musk will probably make that stuff happen.

How is the current price of oil in the stock market affecting your work?

After Covid happened, prices dropped below 30. We all knew we were getting laid off, it was just a matter of when. I got laid off April 27, 2020. Drillers will be working floorhand positions.

Has COVID-19 affected your life as an oil rig worker?

Yes. Got laid off because of it. Politics I don't understand and less usage of oil. When oil prices went under 30 we all knew we were getting laid off, just didn't know when.

PICTURES



Rig behind the housing for the crew and companymen



A lot of rigs are on farmland.



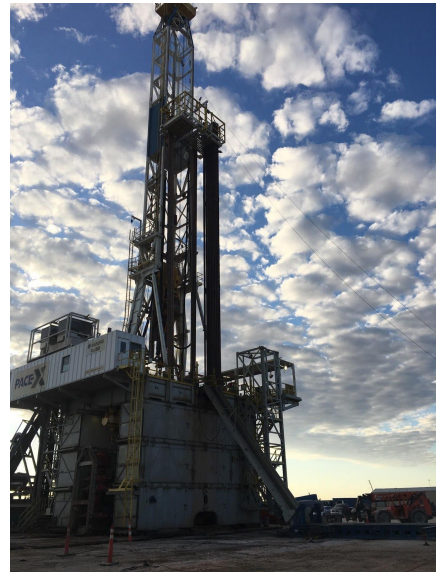
Another shot of the crew's trailers.



Front of the rig. The blue machine is what brings up the drill pipe. It is called a pragma



Mr. Bernardo in the derrickman area. Behind is the pits (chemicals, etc.)



The white structure is the doghouse, where the driller stays. The floor hands work on the rig floor adjacent to it.



The hole on the ground, before the rig is moved on top of it.



Derrickman and Floorhand



A shot of the rig floor.



This is called the stack. The stack goes right above the hole. It is a safety measure as it contains multiple ways of stopping gas from coming up. The red wire looking things are hydraulic hoses filled with hydraulic oil. They open and close valves.



This is where the derrickman mixes chemicals. We pour in sacks of chemicals and pumps bring those chemicals into a mix that contains dozens of barrels of diesel (if we're making oil base). Sometimes we will put in a chemical called bayrite. That will change the thickness of the mix. Sometimes we use calcium chloride. That stuff tingles when you smell it, and it lightly burns your skin.



A crane taking rig apart after drilling is done.



Watching a rig move from our rig.

Remote Learning Packet

There is no need to submit this packet at the end of the week. Enjoy your summer break!

Week 9: May 25-29, 2020

Course: Latin 1B

Teacher(s): Magistra Baptiste: deborah.baptiste@greatheartsirving.org

Magister Bascom: john.bascom@greatheartsirving.org

Cambridge Dictionary

[The Latin Companion - Book II Dictionary](#)

Monday, May 25

Happy Memorial Day! No School!

Tuesday, May 26 - Friday May 29

We will be reviewing some of the characters we met in Cambridge Latin Unit 2 (the blue book) this year. In the worksheet **Quis eram ego?** (*Who was I?*), read the clue in each sentence and select the character it is referring to.

(We have also provided a link above to use as a dictionary in case you no longer have your books.)

Adjective Review Word Search

Doesn't everyone love a wordsearch? I have selected adjectives mostly from Review Checklists, but also a few frequently used and, hopefully, very familiar words.

Just a reminder, you will not be turning in this packet. It's been a great privilege teaching 7th Latin this year, and getting to know each one of you. *gratias vobis ago, hic annus erat optimus! Habete splendidos ferias!**

ferias: vacation, holidays, leisure

Quis eram ego?

Fill in the blanks with the correct name(s) of some of the characters you have met in the stories in Uniti 2.

1. ego prope urbem Alexandriāe villam splendidam habēbam.

ego eram _____

- a) Eutychus b) Clemens c) Barbillus d) Quintus

2. ego cubiculum ēlegāns Quintō ornāvī. Maritus meus non placuit.* **pleased*

Ego eram _____.

- a) Galetea b) Rufilla c) Helena d) Plotina

3. ego eram medicus Barbilī. Ego eram _____.

- a) astrologus b) Petro c) Aristo d) Eutychus

4. ego tabernāriīs “praesidium*” dedī. Multōs latrones habebam. **praesidium: protection*

Ego eram _____.

- a) Barbillus b) Clemens c) Eutychus d) Quintus

5. ego eram servus neglegēns qui semper dormire volebam.

- a) Salvius b) Volubilis c) Bregēns d) Phormio

6. nōs eramus geminī quī cantāre et saltāre poteramus.

- a) Loquax et Antī-Loquax b) Salvius et Rufilla
c) Aristo et Galeteā d) Volubilis et Domatilla

7. ego in Britannīā militāvī quod pater meus mē iterum vidēre nōlēbat.

ego eram _____.

- a) Quintus b) Barbillus c) Clemens d) Rufus

8. ego mūrem dissectum in vulnus dominī posuī.* *pono, ponere, posui: put

- a) Petro b) Phormio c) astrologus d) Quintus

9. ego eram dea quae Clēmentem servāvit. Ego eram _____.

- a) Isis b) Serapis c) Minerva d) Jupiter

10. ego cum fēle sacrā Eutychem et latrōnēs superāvī. Ego eram _____.

- a) Quintus b) Belimicus c) Clemēns d) Aristo

11. ego Clēmentī tabernam ēmī quod Clemens erat bonus servus.

emo, emere, emī: buy Ego eras _____.

- a) Quintus b) Bregēns c) Aristo d) Salvius

12. Ego eram vir miserrimus et ego tū tragoediās scrīpsi. Ego eram _____.

- a) Helena b) Aristo c) Rufus d) Barbillus

Discipula/Discipule, tū cōnfēcistī **librum secundum!** tū es _____.

Adjective Review Wordsearch

Find as many of the Latin adjectives as you can find. Words can go forwards, backwards, diagonally, up, and down. Below, the English meanings of the adjectives have been provided. Check them off as you find their Latin equivalents.

O A M R S M V C W E Q O M J L A G R S S
 U F A Z J U V Y U H M F J A N P Z C C C
 A Z M R H O W J G C E O F Z R W R O O O
 F O Z S K V S V D S T R S O A I Z G E V
 M X A N V K Y V S A Q T S G H W D C N N
 A D L O O T R U C T G I P P S J F S S L
 G H Q V I R S O P T G S F F T B D U C X
 N P A U C I L O V O S I L E D I F T G A
 U R U S S A F Y L N E M G E H G P A S X
 S I P U N V M E L I O R O M B A M R L J
 K I K P G F S P V T I A E G E R P I Q X
 M K O D J I C U Y U S U N O B J Y I M T
 C Z C R U D E L I S F S O Y O Q N C T J
 E K B Z B S A N S X I U C E E N U H W P
 K X M I S E R U P A N I A S C K L C Z B
 K M S N T E T Z Y Q K A R L S P L D C M
 Y A S U Y L D O X S G Z U R Z B U S E I
 A K S F U D F C Y R E N S G U O S U G U
 U E B T M H X V J R U Q A Y G B H K C U
 N X S I F D F V F U Y O C O Y Q T F F Q

MISERABLE
 NEW
 ANXIOUS
 BETTER
 ASTONISHED
 BRAVE

FEW
 CRUEL
 HAPPY
 NO, NONE
 TIRED
 SICK

FAITHFUL, LOYAL
 GOOD
 DEAR
 BIG, GREAT
 ANGRY
 STUPID

Remote Learning Packet

There is no need to submit this packet at the end of the week. Enjoy your summer break!

Week 9: May 25-29, 2020

Course: Literature/Composition

Teacher(s): Mr. Binder

Monday, May 25

Happy Memorial Day! No School!

Tuesday, May 26 - Friday May 29

Last week you wrote the first draft of your sonnet. This week you will write your final draft. Start by having a friend, parent etc. read over your sonnet and edit it. Show them the class notes on the sonnet so they are aware of the rules of the sonnet form. They should be looking for fourteen lines, a single idea throughout, Iambic Pentameter, and the proper rhyme pattern throughout. They should also be looking for errors in grammar, spelling, capitalization, punctuation etc. Have them mark up your sonnet and discuss their thoughts for improvements with you.

Really listen to your chosen editor and then decide what needs to be fixed or changed. Remember you are the writer/poet so you will make the final call on what to fix and what to leave as is.

Make your editing changes. Polish your sonnet. Give your sonnet a title. Type up your sonnet. Pay close attention to the typing instructions below. (If for some reason you cannot type up your sonnet please write your sonnet in your best handwriting.)

Typing Instructions

- Times New Roman font
- Font size 12
- Double space header
- Double space paragraph
- Do not give your paragraph a title

EXAMPLE:

John Smith

Literature & Composition

Literary Analysis Paragraph

February 7, 2018

This is a model paragraph designed to help you follow the typing instructions properly.

Please notice that the header is double-spaced, but that there is no quadruple spacing. The paragraph itself is also double-spaced. The paragraph was indented using the “Tab” button on the keyboard.

*****Important Note***** This assignment will not be turned in. I would like you to have a nice edited and polished sonnet which you can be proud of and share with your family and friends!

Remote Learning Packet

There is no need to submit this packet at the end of the week. Enjoy your summer break!

Week 9: May 25-29, 2020

Course: 7th Grade Pre-Algebra

Teacher(s): Mrs. Frank leslie.frank@greatheartsirving.org

Mrs. Voltin mary.voltin@greatheartsirving.org

Monday, May 25

Happy Memorial Day! No School!

Tuesday, May 26 - Friday May 29

No speed tests this week! (Although if you want to keep doing them all summer just to improve your skills for next year, we would not object...)

Cumulative Review, pp. 436-437, Exercises, 2-38, even, and Problems, 2-8, even

After you complete the review, you may look at the answer key to check your solutions.

NOTE: You will NOT need to scan your answers or return this assignment in any way. Have a fabulous summer! We look forward to seeing you all in the fall!

Pre-Algebra, WEEK NINE!, May 26-29th

Cumulative Review, pp. 436-437, Exercises 2-30, even & Problems, 2-8, even

$$2. \frac{16+9}{32+8} = \frac{25}{40} = \boxed{\frac{5}{8}}$$

$$4. 4x - 0 + xy + 3y = \boxed{4x + xy + 3y}$$

$$6. 3p^2(p+5) = \boxed{3p^3 + 15p^2}$$

$$8. \frac{8}{11} - \frac{1}{3} =$$

$$\frac{8}{11} \cdot \frac{3}{3} = \frac{24}{33}$$

$$- \frac{1}{3} \cdot \frac{11}{11} = -\frac{11}{33}$$

$$\boxed{\frac{13}{33}}$$

$$10. -1\frac{1}{2} \div -2\frac{1}{2} =$$

$$-\frac{3}{2} \div -\frac{5}{2} = -\frac{3}{2} \times \frac{2}{5} = \boxed{\frac{3}{5}}$$

$$12. \begin{array}{r} -3 - 7 = x + 1 \\ -10 = x + 1 \\ -1 \quad -1 \\ \hline -11 = x \end{array}$$

$$14. \begin{array}{r} x + (-9) > -2 \\ +9 \quad +9 \\ \hline x > 7 \end{array}$$

$$16. \begin{array}{r} 11 - x > 0 \\ +x \quad +x \\ \hline 11 > x \text{ or } x < 11 \end{array}$$

$$18. C = 343.2 \quad C = 2\pi r$$

$$343.2 = 2\left(\frac{22}{7}\right)r$$

$$\left(\frac{7}{44}\right)343.2 = \frac{44}{7}r \left(\frac{7}{44}\right)$$

$$\boxed{r = 54.6}$$

$$20. C = 897.6 \quad C = 2\pi r$$

$$897.6 = 2\left(\frac{22}{7}\right)r$$

$$\left(\frac{7}{44}\right)897.6 = \frac{44}{7}r \left(\frac{7}{44}\right)$$

$$\boxed{r = 142.8}$$

22. What is 125% of 89?

$$x = 1.25 \cdot 89$$

$$\boxed{x = 111.25}$$

24. What percent of 75 is 35?

$$\frac{x \cdot 75}{75} = \frac{35}{75}$$

$$x = 46\frac{50}{75} = \boxed{46\frac{2}{3}\%}$$

$$\begin{array}{r} 46\frac{50}{75} \\ 75 \overline{)350} \\ \underline{-300} \\ 500 \\ \underline{-450} \\ 50 \end{array}$$

26. 35 is 8% of what number?

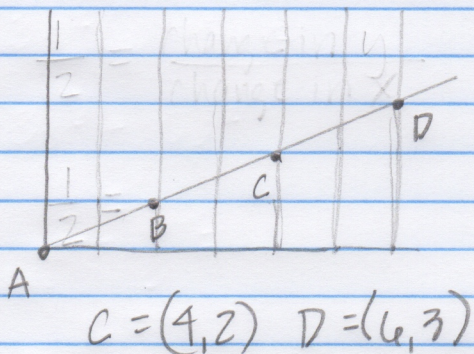
$$\frac{100}{8} \cdot 35 = \frac{8}{100}x \cdot \frac{100}{8}$$

$$\boxed{x = 437\frac{1}{2}}$$

Pre-Algebra, Week 9, May 26-28th

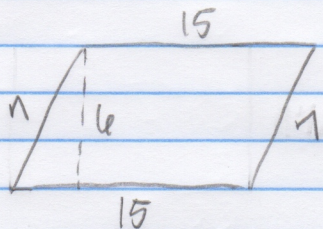
Cumulative Review, page 2:

28. $A(0,0)$ $m = \frac{y_2 - y_1}{x_2 - x_1}$
 $B(2,1)$
 $C(4,?)$
 $D(?,3)$ $m = \frac{1-0}{2-0} = \frac{1}{2}$



$C = (4,2)$ $D = (6,3)$

30.



$A = b \cdot h = 15 \cdot 6 = 90 \text{ cm}^2$

$P = 2L + 2W = 2(15) + 2(7) = 30 + 14 = 44 \text{ cm}$

32. 12, 16, 20

$12^2 + 16^2 \stackrel{?}{=} 20^2$
 $144 + 256 \stackrel{?}{=} 400$
 $400 = 400$ Yes

34. 9, 12, 15

$9^2 + 12^2 \stackrel{?}{=} 15^2$
 $81 + 144 \stackrel{?}{=} 225$
 $225 = 225$

Yes

36. $5! = 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = 120$

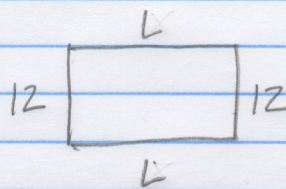
38. $7! = 7 \cdot 6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = 5040$

Problems:

2. $\frac{1 \text{ cups}}{4 \text{ hour}} \times \frac{24 \text{ hours}}{1} = 6 \text{ cups}$

4. Carbon = 4 Fluorine = -1
 $4c + (-1)f = 0$
 $4(1) + (-1)f = 0$
 $4 - f = 0$
 $4 = f$ 4 atoms

6.



$P = 2W + 2L$

$54 = 2(12) + 2L$

$54 = 24 + 2L$

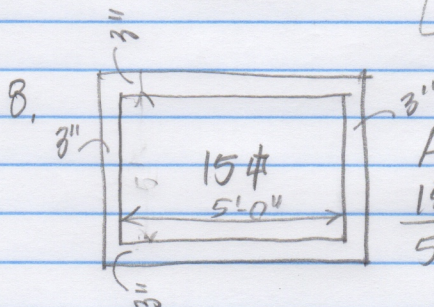
$A = W \cdot L$

$= 12 \cdot 15$
 $= 180 \text{ m}^2$

$-24 -24$

$\frac{30 = 2L}{2 \quad 2}$

$L = 15$



$A = L \cdot W =$

$\frac{15 = L \cdot 5}{5 \quad 5}$

$L = 3'$

Overall dimensions: $5'6'' \times 3'6''$

Remote Learning Packet

There is no need to submit this packet at the end of the week. Enjoy your summer break!

Week 9: May 25-29, 2020

Course: Music

Teacher(s): Mr. Zuno

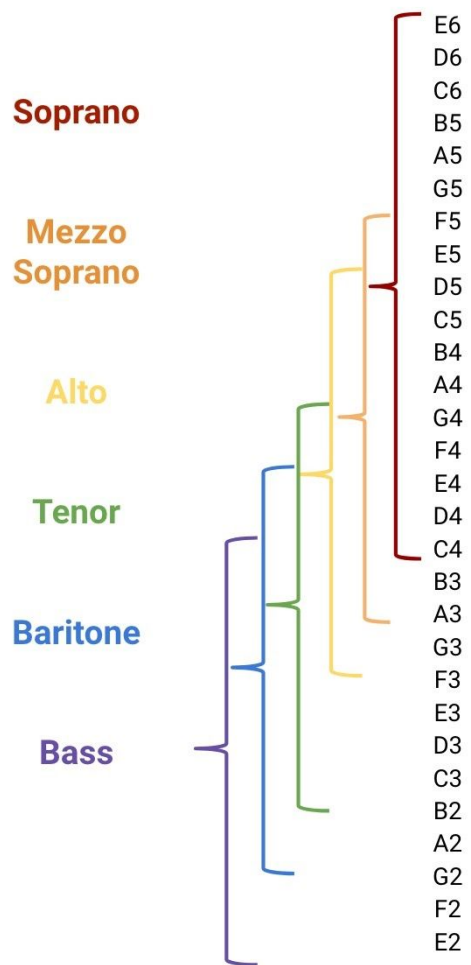
Monday, May 25

Happy Memorial Day! No School!

Tuesday, May 26 - Friday May 29

This week,

- 1) Take a good look at this [instrument reference chart](#). Once you have done this,
- 2) Listen to this piece of [music by Debussy](#) and name the instruments you can identify.
Which colors represent these instruments?
Which of the instruments on the chart did you hear in the performance?
- 3) As you can see, each instrument has a range of possible notes. Why is it important to know more specific information about ranges, such as detailed information about timbral characteristics?
- 4) Next, please listen to this [music by Thomas Tallis](#). Using the chart below, keep in mind which voices are singing at any particular moment in the motet.



Instrument Ranges

Timbral Characteristics

Dynamic Curves

Additional Comments

Piccolo
D4 - C7
sounds 1 octave higher

Flute
B3 - D7
Only use B6 upwards at the end of an upward-rushing *f.fff* scale.
These trills and tremolos are unplayable on the flute.

Oboe
Bb3 - A6
These notes are hard to play at dynamics less than *mf*.

English Horn
E3 - B5
written B3 - F#6

Clarinet
C#3 - F#6
D3 - G6
G3 - C7
E3 - A6
avoid major 2nd trills on these notes, when the part is solo, or exposed. OK when used in tutti.

Bass Clarinet in Bb
D#2 - G5
E#3 - A6

Bassoon
Bb1 - E5
avoid trills (major or minor 2nd) from low G6 downwards, or on all D's, E's, G's or on A4.

Double Bassoon
Bb1 - C5
sounds 1 octave lower

Horn in F
G1 - F5
D2 - C6
Pedal tones (black notes) and lower range: write only as long holding notes.

Trumpet in C
F#3 - D6

Tenor Trombone
E2 - D5
Pedal tones: Bb1 is easily playable. Below that the notes become increasingly insecure. G1 is usually the bottom limit for most players.

Bass Trombone
C2 - D5
Pedal tones: Full sound with great carrying power. More secure than Tenor Trombone's pedal tones. Do not make them very rapid.

Tuba
D1 - F4
Lower notes: Always use ledger lines, not 8ve sign. -4

Timpani
32" 28" 25" 23" 20" (Piccolo)
C2 - A2 F2 - C3 Bb2 - F3 D3 - A3 F3 - C4
The centre range of each drum produces the best tone.

Harp
C#1 - G#7
A2 - F5
Normal range Harmonic range
sounds 1 octave higher: write this information into the score

Violin
G3 - E7 (B7)
Normal range Harmonic range Pizzicato range
Solo group

Viola
C3 - C6 (A6)
Normal range Harmonic range Pizzicato range
Solo group

Cello
C2 - A5 (D6)
Normal range Harmonic range Pizzicato range
Solo group

Double Bass
C2 - D5 (G5)
Normal range Harmonic range Pizzicato range
Solo group

Piccolo
-More agile than flute
-Faster articulations
-Dynamic curve similar to flute but with exaggerated contrast
-Solo piccolo in mid+low registers - valuable voice
-High piano (*p*) - still shines through orchestral tutti

Flute
-Agile
-Fast articulations
-Rapid scales
-Intonation good except from G6 upwards:
Also at this register, 2 flutes produce obvious beats which are more obvious with 4ths+5ths, less so with 3rds+6ths
-Easily masked below C5 (above mid C)

Oboe
-Agile
-Expressive
-Precise staccatos
-Rapid scales
-Smooth legato - even with wide leaps
-Double, triple tonguing. Flutter tonguing rare but possible

English Horn
-As agile as oboe
-More delicate and slightly quieter than oboe
-Precise attack
-Pointed staccatos
-Rich in upper partials

Clarinet
-Agile
-Smooth legatos
-Tremolos - good
-Staccato not as pointed as double reeds, so should be compensated for when used with oboes and/or bassoons
-Dynamic range greater than other woodwinds - all dynamics are available in all registers (attacks can be almost inaudible)

Bass Clarinet
-Agile - almost as much as clarinet
-Fluid
-Useful ensemble voice - gives clarity to cellos + d. basses
-Solo - distinguished + strikingly individual tone

Bassoon
-Often doubles string melodies in unison, or in 8va below
-Agile - except lowest 5th and above G4:
-Rapid tonguing - single usual, but double + triple also possible
-Rapid loud or low passages need lots of breath
-Excellent as solo voice in upper range
-Divide tricky rapid passages below F2 between 2 bassoons

Double Bassoon
-Expressive
-Slightly less agile than bassoon, so make parts simpler
-Good bass to *p-mp* brass or woodwind ensemble
-Reedy and growly
-Adds unobtrusive pitch centre to low double basses
-Often doubles double basses in unison and doubles cellos in 8va below

Horn - Stopped notes: Soft=Delicate, Loud=Ominous bite!
-Not very agile - leaps over 1 8ve should be used sparingly
-Tonguing is less incisive than other brasses, but pro players can perform double, triple and flutter tonguing
-Trills: i) Lip-commonest+smoothest type. Most whole-step lip trills above written B4, above mid C, are possible
ii) Valve-Best are minor 2nds throughout whole range
-High notes lack accuracy+security, more so in soft passages

Trumpet
-Very agile - rapid passages, wide leaps
-Rapid tonguing easy - double, triple or flutter
-Trills: All major + minor 2nds possible
-Tremolos: minor 3rds+up are hard to play fast, but possible if both pitches require little or no change of fingering
-Sturs: All possible, but bigger than 1 8ve ascending and bigger than a 6th descending are difficult

Tenor Trombone
-Glissandi
-Responsive and flexible
-Legato tonguing used frequently
-Agile from Bb3 upwards (less so below that):
-Rapid tonguing easy - double, triple or flutter
-Good balance with orchestra in any voicing
-Chords in open or close voicing - good
-Unison or 8ve doubling - good
-Sustained chords good, but not for too long above *mf*

Bass Trombone
-Darker, more somber tone
-More secure lower range + pedal tones
-Requires more breathing spaces in music passages
-Glissandi

Tuba
-Agile
-Rapid tonguing - double, triple or flutter
-Requires lots of air, especially in lower register + at *fff*
-Always use ledger lines for lower notes
-Uniform expressiveness throughout range
-Usually used as bass line, or doubles bass line 8ve lower
-Solo: Mellow + smooth

Timpani
-5 Ranges: The best tone is in the centre of each drum's range
-Each drum's lower range=Dull+thumpy, Upper=Hard+pingy
-Can be muffled with cloth
-Struck dead centre = Darker, more ominous - less ring
-Soft sticks = Warm, more resonant
-Hard sticks = Louder + greater clarity
-Glissandi

Harp
-Harmonics: Left hand-up to 3 close harmonics (not over a 5th apart), right hand-only 1 harmonic. Must be all b, #, or # tuning per string.
-47 strings, 7 pedals for each pitch class. Only 1 b, #, or # tuning per string.
-All 8ves affected by changing 1 pitch class pedal, except the lowest 2 strings which have to be tuned manually
-Allow approximately 0.5-1 second per pedal change, which can be done while playing as long as that pitch is not played
-Only the left hand can reach lowest 8ve
-Flat b strings resonate more than natural b or sharp # strings.
-Thumb+3 fingers used: So favour large intervals between upper pitches, and avoid large intervals between lower pitches
-Average hand span interval of 10th from thumb > ring finger
-Tremolos: Fast and loud tremolos possible, using 2 strings tuned to same note
-Bisbigliando: Delicate rustling tremos at *ppp-mp* only + less clear articulation
-Glissandi: 1-handed, 2-handed, up, down or both, single notes or chord gliss.
Can change the tuning in mid gliss. -Sons Etouffes: Dampen notes-dry stacc.
-Pres de la table: Guitar-like, plucked near soundboard

Violin
-Most agile, responsive + versatile of strings
-Sul Tasto: Bow over the fingerboard
-Col Legno: Tap string with wood of bow-hard, clattery sound (ord.=Bow with the hair of the bow)
-Ponticello or Sul Ponticello: Bow near bridge
-Multiple stops: i) Double: Adjacent strings, all dynamics, can sustain, easy to play
ii) Triple: Only *mf.fff* if 2 open + 1 stopped string - easy
iii) Quadruple: Only *f.fff*

Viola
-Good for doubling melodic lines at 8ve or in unison with violin
-Unison with English Horn = Rich + romantic
-Can reinforce + double cello, acting as a small cello
-Good used as the only bass part - solid, but not heavy foundation
-Usually divisi, not multiple stops, for 2, 3, or 4 pitches (but it can play multiple stops - same limitations of multiple stops as violin)
-Excellent used in or as accompaniment - rhythmic figurations, or harmonic structure

Cello
-Agile, expressive, melodic, mellow+warm
-Can play complex+intricate lines
-Bass lines: Clear+focused. Subtle or aggressive
-Often scored above viola where it is very assertive

Double Bass
-Less agile than other strings
-Double stops: Best if 1 string is open
-Mid-upper range has a powerful intensity
-Pizzicato: Excellent, warm, full, sustaining. Good at *ppp.fff* They can provide the only necessary bass to a complex tonal structure!
-Natural Harmonics: Easy + good. They can provide an alternative to other string section tones because they are in the middle of the string section range.

Bibliography

-Adler, Samuel
The Study of Orchestration
3rd ed. New York: Norton, 2002.

-Berlioz, Hector
Treatise on Instrumentation
Enl. and rev. Richard Strauss. Tran. Theodore Front.
New York: Dover, 1991.

-Blatter, Alfred
Instrumentation and Orchestration
2nd ed. New York, Schirmer Books, 1997.

-Forsyth, Cecil
Orchestration
2nd ed. New York: Dover, 1982.

-Jacob, Gordon
Orchestral Technique
3rd. ed. London and New York: Oxford University Press, 1982.

-Kennan, Kent and Grantham, Donald
Technique of Orchestration
6th ed. New Jersey: Prentice Hall, 2002.

-Rimsky-Korsakov, Nikolai
Principles of Orchestration
Ed. Maximilian Steinberg. Trans. Edward Agate.
New York: Dover, 1964.

-Piston, Walter
Orchestration
London: Victor Gollancz Ltd, 1955.

-Ray, Don B.
Orchestration Handbook
Milwaukee: Hal Leonard Corporation, 2000.

Remote Learning Packet

There is no need to submit this packet at the end of the week. Enjoy your summer break!

Week 9: May 25-29, 2020

Course: Physical Education

Teacher(s): John.Bascom@GreatHeartsIrving.org

Joseph.Turner@GreatHeartsIrving.org

James.Bascom@GreatHeartsIrving.org

Monday, May 25

Happy Memorial Day! No School!

Tuesday, May 26 - Friday May 29

Dearest students,

The year is coming to a close and the summer is almost upon us. For your final week of P.E., before the year officially ends, we want you to begin looking ahead to the summer and to begin setting goals and outlining routines that you would like to continue throughout the summer to stay active, health, and continue to grow and develop.

Think back to the goals that you set in week 1 of remote learning, think over what you have learned through attempting to carry out these routines, think about the workouts that we have given you each week. With all this in mind, write down on a piece of paper a revised list of goals and a revised weekly schedule. These are your goals and this is your schedule, they can be exactly the same or completely different as your previous goals/schedule. Feel free to aim high or to keep your goals/schedule very simple and manageable. Be sure to consider how much or how little you wish to do and then consider what the consequences of your choices will be.

Once you have written down your goals and your schedule, find a prominent place to post this schedule, maybe above your desk or on the back of your bedroom door. Put it in a place where you will see it frequently.

Your coaches wish for you a joyful summer and we look forward to seeing you again in the fall.

Stay savage.

Mr. John Bascom

Mr. James Bascom

Mr. Joseph Turner

7 Science Remote Learning Packet

There is no need to submit this packet at the end of the week. Enjoy your summer break!

Week 9: May 25-29, 2020

Course: 7 Science

Teacher(s): Miss Weisse natalie.weisse@greatheartsirving.org
Mrs. Voltin mary.voltin@greatheartsirving.org

Monday, May 25

Happy Memorial Day! No School! Relax and have fun!

Tuesday, May 26 - Friday May 29

To wrap up the year for science, we would like to challenge you to accomplish 2 *tasks*:

- 1) Identify all the anatomy parts we have studied in the human body! We have put all the organ systems together so you will really have to decipher what organs belong where.
- 2) Fill in all the blanks for the *Metamorphosis of Plants* Poem! How well do you know it? If you so desire, you're also invited to take a video of yourself reciting the poem or part of the poem for us to enjoy!

Have a wonderful, wonderful summer!
We miss you all dearly, and eagerly look forward
to chatting with you again next year!

Directions: Identify the 18 anatomy pieces labeled below.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

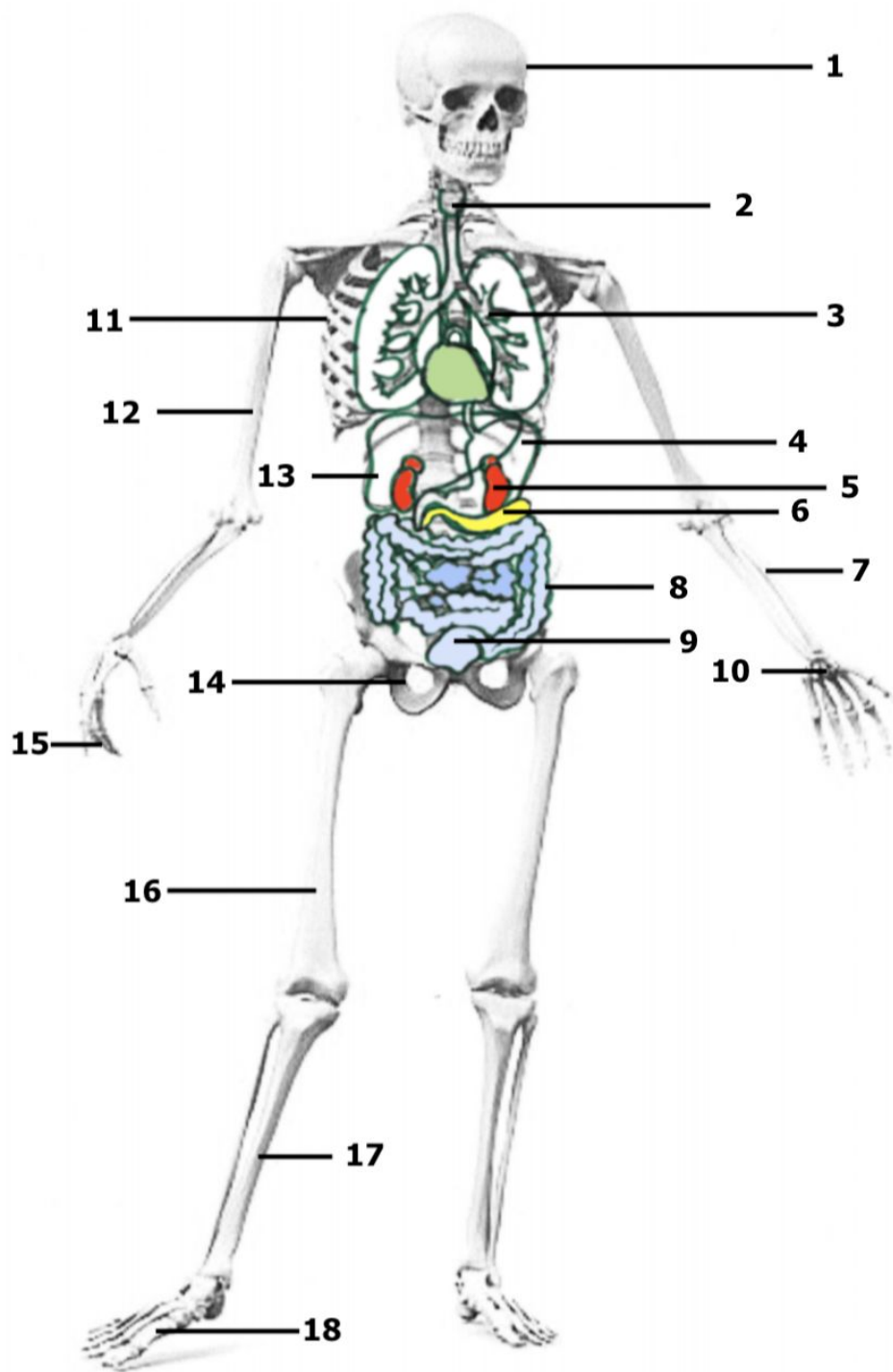
14. _____

15. _____

16. _____

17. _____

18. _____



Metamorphosis of Plants
By Johann Wolfgang von Goethe

The rich profusion thee (1) _____, my love,
Of flowers, spread athwart the garden. Aye,
(2) _____, and each
More barbarous-sounding than the one before--
Like unto each the form, yet none alike;
(3) _____,
A sacred mystery. Ah, love could I vouchsafe
In sweet (4) _____ a simple answer!
Gaze on them as they grow, see how the plant
Burgeons by stages into flower and fruit,
Bursts from the seed so soon as (5) _____
Sends it to life from her sweet bosom, and
Commends the (6) _____ of the delicate leaf
To the sacred goad of ever-moving light!
(7) _____,
Foreshadowed pattern, folded in the shell,
Root, leaf, and germ, pale and half-formed.
The (8) _____ of tranquil life, kept safe and dry,
Swells upward, trusting to the gentle dew,
Soaring apace from out the enfolding night.
(9) _____ --
The plant-child, like unto the human kind--
Sends forth its rising shoot that gathers limb
To limb, itself repeating, (10) _____,
In infinite variety; 'tis plain
To see, each leaf elaborates the last--
(11) _____, _____, spikes
That rested, webbed, within the nether organ--
At length attaining preordained fulfillment.

Oft the beholder marvels at the wealth

(12) _____ --

The infinite freedom of the growing leaf.

Yet nature bids a halt; (13) _____,

Gently directing even higher perfection,

Narrow the vessels, moderate the sap;

And soon the form exhibits subtle change.

The spreading fringes quietly (14) _____,

Letting the leafless stalk rise up alone.

More delicate the stem that carries now

A wondrous growth. (15) _____.

In careful number or in wild profusion

(16) _____ *circle here the core.*

The crowded guardian chalice clasps the stem,

Soon to release the (17) _____ topmost crown.

So nature glories in her highest growth,

Showing her endless forms in orderly array.

None but must marvel as the blossom stirs

Above the slender framework of its leaves.

(18) _____ *but the heralding*

Of new creation, as the many-hued petals

Now feel God's hand and swiftly shrink. (15) _____

Spring forth, most delicate, destined for union.

In intimacy they stand, the tender pairs,

Displayed about the consecrated altar,

While (19) _____ hovers above. A swooning scent

Pervades the air, its savor carrying life.

Deep in the boson of the swelling fruit

A germ begins to burgeon here and there,

As nature welds her ring of ageless power,

Joining another cycle to the last,

(20) _____ --

The whole reflected in each separate part.

Turn now thine eyes again, love, to the (21)_____

Profusion. See its bafflement dispelled.

Each plant thee heralds now the iron laws.

In rising voiced hear the flowers declaim;

And, once deciphered, the eternal law

Opens to thee, no matter what the guise--

(22)_____,

Let man himself the ordained image altar!

Ah, think thou also how from sweet acquaintance

The (23)_____ grew within our hearts,

To ripen at long last to fruitful love!

Think how our tender sentiments, unfolding,

Took now this form, now that, in swift succession!

(24)_____! Love sanctified,

Strives for the highest fruit--to look at life

In the same light, that lovers may together

In harmony (25)_____!