7th Grade Lesson Plan Packet

4/13/2020-4/17/2020

Remote Learning Packet

NB: Please keep all work produced this week. Details regarding how to turn in this work will be forthcoming.

April 13-17, 2020
Course: 7th Grade Latin 1B
Teacher(s): Ms. Baptiste and Mr. Bascom

Weekly Plan:

Monday, April 13
☐ Review of Stage 19 Grammar
☐ Stage 19 Grammar review Questions

Tuesday, April 14
☐ Translate the Model Sentences on page 134. (Worksheet provided)
☐ Fill in the missing parts to the vocabulary words on page 150

Wednesday, April 15
☐ Read lines 1-15 of **Remedium astrologī** p. 135
☐ Answer the questions which follow on **Worksheet I** below.

Thursday, April 16
☐ Read lines 16-30 of **Remedium astrologī,** p. 135
☐ Complete **Worksheet II** below.

Friday, April 17
☐ Read **About the Language I: Present Participles**
☐Complete the **Present Participles** worksheet.

Statement of Academic Honesty

I affirm that the work completed from the packet
is mine and that I completed it independently.

I affirm that, to the best of my knowledge, my
child completed this work independently

_____

_____

Student Signature

Parent Signature

Monday, April 13

<u>A. Review of Stage 19 Grammar:</u>

1) Demonstrative pronouns *hic* and *ille.*

   a) Remember that **demonstrative pronouns** point out people and things.

     E.g. **hic** vir . . . **this** man   vs.   **ille** mercator . . .**that** merchant

   b) we learned the *nominative* and *accusative* cases for these pronouns:

Case	*Masculine*	*Feminine*	*Neuter*	*Meaning*	*Masculine*	*Feminine*	*Neuter*	*Meaning*
NOM. SING	**hic**	**haec**	**hoc**	*this*	**ille**	**illa**	**illud**	*that*
ACC. SING.	**hunc**	**hanc**	**hoc**	*this* (d.o.)	**illum**	**illam**	**illud**	*that* (d.o.)
NOM. PLUR.	**hī**	**hae**	**haec**	*these*	**illī**	**illae**	**illa**	*those*
ACC. PLUR.	**hōs**	**hās**	**haec**	*these* (d.o.)	**illum**	**illas**	**illa**	*those* (d.o.)

2) Verbs: **Imperatives**

    --Imperatives are commands. Imperatives do not have personal endings **(-o, -s, -t,** etc.). They are simply used to tell someone to do something (these commands can be directed at one person, in which case the imperative verb is singular, or at a group of people, in which case the imperative verb is plural).

1st. Conj.	**portā!**	**portāte!**	**nolī portāre!**	**nōlīte portāre!**
	Carry! (sing.)	*Carry! (pl.)*	*Don't carry! (sing.)*	*Don't carry! (pl.)*
2nd Conj.	**sedē!**	**sedēte!**	**nolī sedēre!**	**nōlīte sedēre!**
	Sit! (sing.)	*Sit (pl.)*	*Don't sit! (sing.)*	*Don't sit! (pl.)*
3rd Conj.	**curre!**	**currīte!**	**nōlī currere!**	**nōlīte currere!**
	Run! (sing.)	*Run! (pl.)*	*Don't run! (sing.)*	*Don't run! (pl.)*
4th Conj.	**audī**	**audīte!**	**nōlī audīre!**	**nōīte audīre!**
	Listen! (sing.)	*Listen (pl.)*	*Don't listen! (sing.)*	*Don't listen! (pl.)*

3) Nouns: **The Vocative Case**

   -- Nouns in the vocative case indicate that ***the person is being spoken to.***

   -- The vocative case usually looks identical to the **nominative singular and plural.**

   -- <u>**except for nouns in the second declension, singular, ending in either *-us* or *-ius.***</u>

   servus --------> serve!   **amīcus -----> amice!**   **Eutychus---- > Eutyche!**

   Salvius--------> Salvī!   **filius --------> filī**   **Iulius------ > Iulī!**

B. Assignment: Complete Stage 19 Grammar Review Worksheet after reviewing the above material.

Tuesday, April 14

Turn in your Cambridge books to page 134. Using the pictures for context, translate the model sentences in the **Worksheet A**. Some of the words are already translated for you. A new kind of word is introduced in Stage 20. It is called the **present participle.** You'll have little difficulty translating it. We will learn more about it later this week.

Worksheet B--using the Stage 20 Vocabulary Checklist on page 150, fill in the blanks with the appropriate missing word.

Wednesday, April 15

Read the first 15 lines of **remedium astrologī** on page 135 and complete **Worksheet I**.

Thursday, April 16

Read the second half (lines 16-30) of **remedium astrologī** on page 135 and complete **Worksheet B.**

Friday, April 17

About the language 1: present participles:

In the following sentences, the words in **boldface** are **present participles**. Please read the Latin sentences and examine their English translations:

medicus, per forum **ambulans,** Phormiōnem cōnspexit.
*The doctor, **walking** through the forum, caught sight of Phormio.*

Clēmēns Eutychum in mediā viā **stantem** invēnit.
*Clemens found Eutychus **standing** in the middle of the road.*

Phormiō ancillās in cubiculō **lacrimantēs** audīvit.
*Phormio heard the slave girls **crying** in the bedroom.*

A present participle is used to describe a noun. Participles are verbal **adjectives**. For example, in the first sentence, **ambulāns** describes the noun **medicus**.

Nota Bene: They are adjectives which were formed from verbs. *Participle* comes from the Latin word *participium* and has the idea of "participating" or "sharing". **Participles** share some functions of verbs + adjectives.

Like all adjectives, **participles** also decline, and must agree with nouns they describe in case, number, and gender. Study the different forms of the present participle (masculine and feminine have the same endings in the 3rd declension):

SINGULAR

nominative	portāns	sedēns	currēns	audiēns
accusative	portantem	sedentem	currentem	audientem

PLURAL

nominative	portantēs	sedentēs	currentēs	audientēs
accusative	portantēs	sedentēs	currentēs	audientēs

Look at the endings of the present participles above. What declension are they? Yes, all present participles are **3rd declension.**

Complete the exercises in the present participles worksheet below.

A. Fill in the blanks in the following table:

Case	Masculine	Feminine	Neuter	Meaning	Masculine	Feminine	Neuter	Meaning
NOM. SING		**haec**	**hoc**		**ille**	**illa**		*that*
ACC. SING.	**hunc**		**hoc**	*this* (d.o.)			**illum**	
NOM. PLUR.		**hae**		*these*		**illae**		
ACC. PLUR.	**hōs**		**haec**		**illōs**	**illās**	**illa**	*those* (d.o.)

B. Circle the correct form of hic or ille to agree with the underlined noun. Then translate each sentence on the line below:

1. servus (illum, illam, hōs) <u>locum</u> servāre solēbat.

_____

2. spectā (illud, hoc, hanc) <u>stolam</u> Īsidis!

_____

3. minimē! columba (illī, illōs, hī) <u>iuvenēs</u> agitābat!

_____

4.(hunc, hās, ille) <u>vir</u> miserrimus erat Aristō.

_____

*C. Translate the following **imperative** sentences:*

1. dīligenter labōrā, discipule!   2. nōlī dormīre, Quinte!

_____   _____

3. nōlīte dicēdere, amīcī!   4. date mihi pecuniam!

_____   _____

*D. Circle the **nouns in the vocative case** in the sentence above.*

_____   **6.14.20 (Tuesday)**
_____   Worksheet A
_____
_____

Fill in the blanks to translate Stage 20 Model Sentences on p.134 of CLC Unit 2.

1. The slaves _____ to the _____, **carrying***

    _____.

2. _____ were standing _____ the _____,

_____.

3. The astrologer _____ into the _____,

    shouting.*

4. Barbillus, _____ in _____, listened to the

_____

*the translations in bold (of *portantēs* and *clamans*) are present participles. We will learn more about these laterin the chapter.

_____

_____

_____

_____

Using the Vocabulary Checklist 20 on page 150, please provide the missing information in the following vocabulary tables:

Nouns *(To review declensions and case endings, use pp. 154-155 of your Latin book)*

Nominative	Genitive	Declension	Meaning
ars		3rd	
	domūs	4th	
lūna			*moon*
	mortis		*death*
oculus		2nd	
	vulneris		*wound*

Adjectives	Meanings
crudēlis, crudēlis, crudēle	
	learned, clever
pessimus, pessima, pessimum	
unus	
	two
trēs	
	four
quīnque	
sex	
	seven
octō	
novem	

(Adjectives)	(Meanings)
decem	
	twenty
trīgintī	
quadrāgintā	
	fifty

Verbs

To remind yourself of conjugation numbers, you may refer to p.10 of you Cambridge Latin)

Principal Parts	Conju-gation	Meaning
arcessō, arcessere, **arcesīivī**	**3rd**	*summon, send for*
	1st	*despair*
īnferō, īnferō, **īntulī**	irregular	
		free, set free
persuādeō, persuādēre, persuāsī		*(+ dat.)*
	3rd	*leave*
temptō, temptāre, temptāvī		

Adverbs

Adverb	Meaning
crūdēlis, crūdēlis, crudēle	
	at last, finally
sīcut	
	so

*Read **remedium astrologī,** lines 1-15 on page 135, and answer the questions which follow:*

1. What was the condition of Barbillus when Quintus (**ego)** and the slave returned to the house?

_____

_____

2. What was Phormio in the habit of doing? (lines 2-3)

_____

3. What two things did he do to help Barbillus?

_____

_____

4. What was the result, nevertheless?

_____

5. After the slaves took Barbillus to his room, what did the two slave girls do?

_____

_____

6. What surprising thing did he ask the slaves to look for? Why did he want them to find it? (lines 10-11)

_____

_____

7. What did the slaves do when they found what they were looking for?

_____

8. What did Phormio place in his master's shoulder?

_____

_____   **4.16.20 (Thursday)**

_____   **Remedium Astrologī Worksheet II**

_____

*Referring to remedium astrologī, page 135, **lines 16-30 i***n *your textbook, complete each of the following sentences by selecting the correct nominative from the pool. Translate each completed sentence and number it according to the sequence in the story. One is done for you.*

ancillae	**servī**	**astrologus**
Quīntus	**Barbillus**	**Phormiō**

a. _____ "prīmō necesse est mihi mūrem nigrum capere," inquit. _____

b. _____ in cubiculum Barbillī irrūpit, exclāmāns. _____

c. _*astrologus*___ ancillās lacrimantēs vīdit, servōsque clāmantēs audīvit. __**1**___ **(first in the**

    The astrologer saw the slave-girls crying and heard the slaves shouting.   **sequence of the story)**

d. _____ rogāvit anxius, "habēsne remedium?" _____

e. _____ susurrāvit, "quaere Petrōnem, medicum bonum!" _____

f. _____ Phormiōnem, quī Petrōnem bene nōverat, ē vīllā ēmīsit. _____

g. _____ "nōs astrologī," inquit, "sumus vērī medicī." _____

h. _____ mūrem captum in umerum Barbillī pōnere volēbat. _____

i. _____ medicum quaerēbat, _____ mūrem. _____

1. In the following sentences, circle the **present participle** and translate each sentence:

a. astrologus in cubiculum irrūpit, clāmāns.

_____

b. puerī, per urbem currentēs, Petrōnem cōnspexērunt.

_____

c.spectātōrēs sacerdōtem ē templō discēntem vīdērunt.

_____

d. Galatēa iuvenēs in locō optimō stantēs vituperāvit.

_____

e. fūr ē víllā effūgit, cachinnāns.

_____

f. rēx, mīlitēs, prō templō sedentēs, spectābat.

_____

Remote Learning Packet

NB: Please keep all work produced this week. Details regarding how to turn in this work will be forthcoming.

April 13, 2020 - April 17, 2020

Course: Texas History

Teacher(s): Mrs. Malpiedi patricia.malpiedi@greatheartsirving.org

Mrs. Hunt natalie.hunt@greatheartsirving.org

Weekly Plan:

Monday, April 13
☐ Complete writing assignment (20 min)
☐ Complete illustration (10 min)

Tuesday, April 14
☐ Read ch. 14 section 4 (10 min)
☐ Answer questions (15 min)

Wednesday, April 15
☐ Check answers and make corrections to ch. 14 questions (20 min)

Thursday, April 16
☐ Open Book Quiz: "Chapter 14 Review and Assessment" (30 min)

Friday, April 17
☐ Answer questions using the Texas Wildflower Guide (30 min)

Statement of Academic Honesty

I affirm that the work completed from the packet is mine and that I completed it independently.

I affirm that, to the best of my knowledge, my child completed this work independently

_____
Student Signature

_____
Parent Signature

Monday, April 13

1. Add your heading and the title below to your Chapter 14 notes:
   ### 14.3 Journal Entry: Farm Life in the West
2. Please write down and then respond to this prompt:
   > *Imagine you are a farmer from East Texas who has moved to West Texas with your family. Write a journal entry describing farm life in the west. Describe the land and your experiences. Write a minimum of 5 complete sentences, but feel free to do more if you wish. Be creative!*

   Use ch. 14 section 3 (pages 340 - 344) and the maps in the textbook (on page 552, for example) for context and to add detail to your journal entry.
3. Illustrate your journal entry.

Tuesday, April 14

1. Read Chapter 14 Section 4.
2. Add your heading and the title below to your notes:
   ### Chapter 14.4: Agricultural Products of Texas (pg. 345-349)
3. Answer the following questions using complete sentences:
   1. Define: (a) **cotton gin**, (b) **cottonseed oil**
   2. How did cotton first come to be planted in Texas?
   3. Cotton production yielded an abundance of cottonseed. Name three ways farmers tried to get rid of excess cottonseed, including the food products in which cottonseed oil was the main ingredient.
   4. During the Civil War, Northern textile mills could not get cotton and began to make wool cloth. How did this affect Texas in the decades after the war?

Wednesday, April 15

1. Using the key at the end of this packet, make corrections to your chapter 14 section questions.
2. Make corrections using a colored pen.

Thursday, April 16

(Today's open-book assessment will be graded as a quiz. You **may** use your textbook and your notes.)
1. On a new page in your notes, add your heading and the following title:
   Chapter 14 Review and Assessment (pg. 350-351)
2. Using complete sentences, answer questions 11, 12, 14, 16-18. Then, complete the vocabulary matching section below.

1. _____ open range	A. the growing of crops for sale in order to make a profit.
2. _____ internal improvements	B. a period of low economic activity and high unemployment.
3. _____ strike	C. the oil from cotton seeds.
4. _____ commercial agriculture	D. a work stoppage to force an employer to meet certain demands.
5. _____ tenant farmer	E. the price paid for the use of borrowed money.
6. _____ interest	F. changes to a community that help boost a region's economy and population.
7. _____ irrigation	G. a machine that removes the seeds from cotton
8. _____ depressions	H. a vast area of undeveloped public land held by the state government for future sale.
9. _____ cotton gin	J. an artificial way to supply water to land.
10. _____ cottonseed oil	K. a person who rents a plot of land from its owner and pays for its use with a share of the crop.

Friday, April 17

1. On a new page or on the back of yesterday's open-book assessment, add your heading and the following title: **Texas Wildflower Questions**
2. Answer the questions using the Texas Wildflower Guide at the end of the packet. Use complete sentences.
   1. What are the nine wildflowers detailed in the chart and in what part of Texas do they grow?
   2. Are bluebonnets annuals, perennials, or biennials and how do you know?
   3. Which four flowers are part of the Aster (or Daisy) family, and which one flower is part of the pea family?
   4. What is the scientific name of the Indian Blanket?
   5. In what parts of the world does the Tahoka Daisy natively grow?
   6. Huisache Daisies can be found in which colors?
   7. Who was Thomas Drummond and what does he have to do with the Phlox flower?
   8. Which of the wildflowers blooms for the most months out of the year?
   9. Which of the wildflowers grow the tallest?
   10. Which of these wildflowers have you seen in person this year?

Answer Key -- Chapter 14

14.1
1. (a) vast areas of public land used by ranchers to feed their herds; (b) changes that are designed to encourage growth in an area
2. (a) failed attempt of Panhandle cowboys to improve their working conditions; (b) destruction of many north Texas herds when fences trapped them during a blizzard and they froze to death
5. The Big Die-Up made made ranchers realize they could not leave their cattle unattended; ranchers began using more fences to manage their herds.
6. Railroads and population growth reduced the amount of land available for open ranching; fences went up, cutting off many people from roads and water sources; landless ranchers were forced to buy land to ensure that their cattle could graze.

14.2
1. (a) growing of crops for sale and to make a profit
2. (a) one of the first companies to build meatpacking plants in Fort Worth; (b) helped farmers increase crop production
6. Railroads linked ranchers with distant markets, made a market for beef in Fort Worth, forced ranchers to fence their land, and ended the open range. Railroads prompted farmers to ship surplus crops to market, brought more farmers to Texas, and brought new machines and other supplies for agricultural use.
7. With railroads, ranchers no longer needed to drive cattle to railheads in the north; ranchers had no need to hire cowboys for cattle drives; instead, they hired low-paid hands to tend the cattle on the ranches.
8. Towns without railroads often failed to prosper.

14.3
1. (a) person who rents a plot of land and pays for its use with a share of the crop; (b) additional money paid by a borrower to a lender for the use of the money borrowed; (c) artificial means of supplying water to land; (d) time when business activity drops and many workers lose their jobs
2. (a) enabled farmers to move their crops to market more easily; brought more people to Texas; promoted land that was not suitable to farming; (b) type of financial trap in which various conditions prevented tenant farmers from repaying their loans
5. Grange members shared knowledge about new farming techniques; they also set up stores that offered lower prices; they supported education and helped establish an agricultural college.
6. High production costs and low prices for cotton led some Texans to become tenant farmers.
7. Answers should indicate that the life of a tenant farmer was stressful -- the work was difficult and the tenant farmer was often in debt.

14.4
1. Define:
(a) The <u>cotton gin</u> is a machine which removes cotton from its seeds. It was invented by Eli Whitney in the 1790s and improved by Robert Munger in the 1880s.
(b) <u>Cottonseed oil</u> is the oil made from the seeds of cotton. It was used to make margarine and vegetable oil.
2. How did cotton first come to be planted in Texas? Cotton was first brought to Texas by Spanish missionaries and early settlers from the southern US.

3. Cotton production yielded an abundance of cottonseed. Name three ways farmers tried to get rid of excess cottonseed, including the food products in which cottonseed oil was the main ingredient. As noted in the text, "Every three pounds of cotton bolls that Texans picked produced about one pound of actual cotton and two pounds of seeds" (345). Farmers tried to get rid of cottonseed by dumping them in rivers and streams, feeding them to their livestock and burning them (which proved smelly and ineffective.) After the 1870s, farmers discovered that they could use the oil of cottonseed to make a butter substitute, margarine, and vegetable oil.

4. During the Civil War, Northern textile mills could not get cotton and began to make wool cloth. How did this affect Texas in the decades after the war?

The new market for wool encouraged the growth of the sheep industry in Texas. Settlers in West Texas found their region ideal for raising sheep, and soon sheep ranching spread throughout the Hill Country and the Edwards Plateau. (See map on page 552 to see where these places are located. The Hill Country is located in the southeastern part of the Edwards Plateau.) Some towns grew up around this industry, and the number of sheep in Texas grew from 750,000 to 4 million over the course of fifteen years.

Texts Wildflower Guide

The select contents of this guide are courtesy of the Horticulture Program at Texas A&M and the Lady Bird Wildflower Center of the University of Texas at Austin.

What are "Annuals", "Perennials", and "Biennials"?

- <u>Annuals</u> - Plants that perform their entire life cycle from seed to flower to seed within a single growing season. All roots, stems and leaves of the plant die annually. Only the dormant seed bridges the gap between one generation and the next.
- <u>Perennials</u> - Plants that persist for many growing seasons. Generally the top portion of the plant dies back each winter and regrows the following spring from the same root system (e.g. Purple Coneflower). Many perennial plants do keep their leaves year round and offer attractive borders and groundcover (e.g. Tickseed, Shasta and Ox-Eyed Daisy).
- <u>Biennials</u> - Plants which require two years to complete their life cycle. First season growth results in a small rosette of leaves near the soil surface. During the second season's growth stem elongation, flowering and seed formation occur followed by the entire plant's death.

Wildflowers Native to North-Central Texas

Amblyolepis setigera

Huisache Daisy, Butterfly Daisy, Honey Daisy
Asteraceae (Aster Family)

Huisache daisy is so called because it often grows in thick stands under the huisache (Vachellia farnesiana) and other chaparral bushes, forming an almost solid blanket of gold. It grows 6-15 inches tall, with several rough, hairy branches in the upper part. Leaves are without petioles, the upper ones having lobes at the base that extend almost around the stem. The large, yellow flower heads, 1 1/4-2 inches across, are on long stems that are bare on the upper portion. The yellow to orange-yellow center is dome-shaped, and the disk flowers are velvety. The 8-12 ray flowers are up to 1 inch long with 3 or 4 teeth on the rim. Often the toothed portion is noticeably lighter than the rest.

Huisache-daisy often forms thick stands along roads and on hillsides where it provides lavish color when in bloom. The plant has a strong scent.

<u>Bloom Information</u>
Bloom Color: Red , Orange

Castilleja indivisa

Texas Indian Paintbrush, Entireleaf Indian Paintbrush, Texas Paintbrush, Indian Paintbrush, Scarlet Paintbrush
Scrophulariaceae (Figwort Family)

One of the popular paintbrushes, this showy annual or biennial grows 6-16 in. high. Its several unbranched stems form clumps topped by bright-red, paintbrush-like spikes. The flowers are actually inconspicuous and greenish, but are subtended by showy, red-tipped bracts. They sometimes produce a light yellow or pure white variation mixed in with the reds. Together, the flowers and bracts form 3-8 in. spikes.

The roots of this plant will grow until they touch the roots of other plants, frequently grasses, penetrating these host roots to obtain a portion of their nutrients. Transplanting paintbrush may kill it. Indian paintbrush has a reputation for being unpredictable. In some years, when bluebonnets (which flower at approximately the same time as Indian paintbrush) are especially colorful, paintbrush will have only an average flowering year. Other years, paintbrush is spectacular.

Coreopsis tinctoria

Plains Coreopsis, Golden Tickseed, Goldenwave, Calliopsis
Asteraceae (Aster Family)

A slender, 1-2 ft. annual with pinnately-compound foliage, tickseed is known for its small but abundant yellow flowers, painted maroon near the center. Numerous smooth, slightly angled branches bearing showy, daisy-like flower heads with yellow rays surrounding a reddish-purple central disk. The yellow petals are notch-tipped. Flower heads occur on long stalks from the multi-branching stems.

This prevailingly western annual has escaped from cultivation in the East. It is widespread in the West and the South in disturbed areas, such as moist ditches. Because of its showiness, the flower is cultivated extensively, hence its common name.

<u>Bloom Information</u>
Bloom Color: Yellow , Brown
Bloom Time: Apr , May , Jun

<u>Native Habitat</u>: Prairie, Plains, Meadows, Pastures, Savannas, Roadsides, pond banks

Bloom Time: Mar , Apr , May
Bloom Notes: Castilleja is an unusual member of the Scrophulariaceae, the snapdragon family. Its vivid "flower" color is actually provided by bracts – not flower petals - which are grouped around and under each of the inconspicuous flowers located on the upper third of the plant.

Native Habitat: Prairie, Plains, Meadows, Pastures, Savannas, Woodlands edge, Opening, Roadsides

Bloom Information
Bloom Color: Red , Orange
Bloom Time: Mar , Apr , May
Bloom Notes: Castilleja is an unusual member of the Scrophulariaceae, the snapdragon family. Its vivid "flower" color is actually provided by bracts – not flower petals - which are grouped around and under each of the inconspicuous flowers located on the upper third of the plant.

Native Habitat: Prairie, Plains, Meadows, Pastures, Savannas, Woodlands edge, Opening, Roadsides

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Gaillardia pulchella

Indian Blanket, Firewheel, Girasol Rojo
Asteraceae (Aster Family)

Firewheel or indian blanket is a popular annual growing 1-2(-3) ft. tall. The hairy stem is usually much-branched and becomes woody at the base late in the season. Branched stems, mostly leafy near the base, have showy flower heads with rays red at base, tipped with yellow, each with 3 teeth at broad end. The well-known flower heads are 1-2 in. across with a red center and a yellow outer band. Occasionally the three-cleft rays are solid orange or yellow. The disk flowers in the center are brownish red.

Frequent along roadsides in the Southwest, these wildflowers stand like hundreds of showy Fourth of July pinwheels at the top of slender stalks. Varieties are popular in cultivation, for they tolerate heat and dryness. Among several species in the Southwest, some flowers are entirely yellow.

Bloom Information
Bloom Color: Red , Yellow , Brown
Bloom Time: May , Jun , Jul , Aug
Bloom Notes: May flower longer if rains are plentiful.

Native Habitat: Dry plains & open areas, Widespread in calcareous and sandy-calcareous prairies in the western two-thirds of the state. Well-drained sand, loam, calcareous soils.

Glandularia bipinnatifida

Prairie Verbena, Purple Prairie Verbena, Dakota Mock Vervain, Dakota Vervain
Verbenaceae (Verbena Family)

The 6-12 in. stems branch near the base, usually lying on the ground with rising tips. Plants are covered with long, whitish hairs. Leaves are opposite and deeply cut several times on both sides of the midrib; they are 1-3 1/2 inches long and 1 1/2 inches wide on a 1-inch stem. Branch-tip, ball-shaped flower heads are composed of tubular, five-lobed, purple flowers with dark centers. Individual flowers are about 1/2 inch long and 1/2 inch wide at the opening, with 5 sepals and 5 petals. Branches continue elongating throughout the season, producing new flowers.

This species is a member of the verbena family (family Verbenaceae), which includes about 75 genera and 3,000 species of herbs, shrubs, and trees, mostly of tropical and warm temperate regions. Among them, teak is a highly prized furniture wood, and Vervain, Lantana, Lippia or Frog Fruit are grown as ornamentals.

Bloom Information
Bloom Color: Pink , Purple
Bloom Time: Mar , Apr , May , Jun , Jul , Aug , Sep , Oct , Nov , Dec

Native Habitat: Prairie, Plains, Meadows, Pastures, Savannas

Lupinus texensis

Texas Bluebonnet, Bluebonnet, Texas Lupine, Buffalo Clover, Wolf Flower
Fabaceae (Pea Family)

Texas lupine has larger, more sharply pointed leaves and more numerous flower heads than similar lupines. Light-green, velvety, palmately compound leaves (usually five leaflets) are borne from branching, 6-18 in. stems.

These stems are topped by clusters of up to 50 fragrant, blue, pea-like flowers. The tip of the cluster is conspicuously white.

This is the species often planted by highway departments and garden clubs and is one of the six Lupinus species which are collectively designated the state flower of Texas.

Bloom Information
Bloom Color: White , Blue
Bloom Time: Mar , Apr , May

Native Habitat: Prairies; open fields; roadsides

Machaeranthera tanacetifolia

Tahoka Daisy, Tansy-aster, Tansey-leaf Tansy-aster
Asteraceae (Aster Family)

Branched stems with fern-like leaves ending in flower heads with many bright purple, very narrow rays surrounding a yellow central disk. Tahoka Daisy is a low, spreading, 6-12 in. annual with delicate but showy, aster-like flowers. Numerous lavender rays surround a yellow center. The stems are densely covered with sharp-pointed, deeply cut leaves which appear fern-like. Plants often form clumps or mounds.

The fern-like leaves of this beautiful species make it one of the easiest to identify in a complex group. False Tahoka Daisy (M. parviflora) is similar but has smaller flower heads, each with a central disk only 1/4-1/2 (6-13 mm) wide, and less elaborately divided leaves; it occurs from Utah south to Arizona, New Mexico, Texas, and Mexico.

Bloom Information
Bloom Color: Purple
Bloom Time: May , Jun , Jul , Aug , Sep , Oct

Native Habitat: Abundant in sandy soils in the Plains Country and Trans-Pecos, rarely east to stream beds of the Edwards Plateau; SD to Alberta, Canada south to north central Mexico.

Phlox drummondii

Annual Phlox, Phlox, Drummond Phlox
Polemoniaceae (Phlox Family)

A much-branched, sticky-glandular plant with bright rose-red, pink, or white flowers in tight clusters at the ends of stems. Annual phlox or Drummonds phlox is a showy annual. Usually 6-12 in. tall, this phlox can reach 20 in. in height. Its flowers, usually with a pale center, range in color from pink to red, white, peach, or lavender. The 1 in. blooms are in terminal clusters and are trumpet-shaped with a short, narrow tube. The leaves are soft, hairy and sticky. This southern flower of roadsides and fields escaped from cultivation.

The species name of this plant is named for Thomas Drummond, (ca. 1790-1835), naturalist, born in Scotland, around 1790. In 1830 he made a trip to America to collect specimens from the western and southern United States. In March, 1833, he arrived at Velasco, Texas to begin his collecting work in that area. He spent twenty-one months working the area between Galveston Island and the Edwards Plateau, especially along the Brazos, Colorado, and Guadalupe rivers. His collections were the first made in Texas that were extensively distributed among the museums and scientific institutions of the world. He collected 750 species of plants and 150 specimens of birds. Drummond had hoped to make a complete botanical survey of Texas, but he died in Havana, Cuba, in 1835, while making a collecting tour of that island.

Bloom Information
Bloom Color: White , Red , Pink , Purple
Bloom Time: Mar , Apr , May , Jun

Native Habitat: In grasslands and open woodlands in neutral to moderately acid sandy soils. In east and central Texas, rare north and west to the Llano Basin. Well-drained sand; acid to neutral.

Thelesperma filifolium

Stiff Greenthread, Greenthread
Asteraceae (Aster Family)

This winter annual, or short-lived perennial, is often found growing in colonies. Its slender, branched stems, 10-30 in. tall, bear leaves divided into thread-like segments. In bud, the flower heads droop; when fully opened, they are erect and upright. The yellow, daisy-like flowers occur on delicate, leafless stalks.

Bloom Information
Bloom Color: Yellow
Bloom Time: May , Jun , Jul

Native Habitat: Prefers disturbed sites in dry, sandy or gravelly soil.

Remote Learning Packet

NB: Please keep all work produced this week. Details regarding how to turn in this work will be forthcoming.

April 13-17, 2020

Course: Literature & Composition

Teacher(s): Mr. Binder   jared.binder@greatheartsirving.org

Weekly Plan:

Monday, April 13

☐ Read and annotate Act 3, Sc.2 of Julius Caesar

☐ Continue memorizing Brutus' Soliloquy found in Act 2, Sc.1, lines 10-36

Tuesday, April 14

☐ Answer Act 3, Sc.2 reading questions

☐ Begin filling out Act 3, Sc.2&3 Notes/Study Guide

☐ Continue memorizing Brutus' Soliloquy found in Act 2, Sc.1, lines 10-36

Wednesday, April 15

☐ Read and annotate Act 3, Sc.3 of Julius Caesar

☐ Finish filling out Act 3, Sc. 2&3 Notes/Study Guide

☐ Continue memorizing Brutus' Soliloquy found in Act 2, Sc.1, lines 10-36

Thursday, April 16

☐ Make flash cards of Act 3, Sc. 2&3 vocabulary words and begin memorizing. Review the vocabulary from Act 3, Sc.1

☐ Memorize Brutus' Soliloquy found in Act 2, Sc.1, lines 10-36. Begin reciting the lines aloud

Friday, April 17

☐ Review vocabulary from all of Act 3 of Julius Caesar

☐ Memorize Brutus' Soliloquy found in Act 2, Sc.1, lines 10-36. Practice saying lines aloud.

Statement of Academic Honesty

I affirm that the work completed from the packet is mine and that I completed it independently.

I affirm that, to the best of my knowledge, my child completed this work independently

_____

Student Signature

_____

Parent Signature

Monday, April 13
This weeks' annotations will look a little different. Because we are working remotely I am going to ask you to record your annotations on notebook paper or to type it on your computer. Please be careful to write down which lines you are providing annotations for.

Tuesday, April 14
Answer the following reading questions from Act 3, Sc.2 of Julius Caesar. The questions and your responses to them should be recorded on a separate page from your annotations. Be sure to write in complete sentences and to check for any mistakes in spelling, grammar, punctuation, capitalization etc. If you are not typing please use your best handwriting on both the annotations page and the reading questions page.

1. In his speech to the people, what things did Brutus praise Caesar for?
2. What did Brutus tell the people was his reason for killing Caesar?
3. What did Brutus say was the benefit of Caesar's death for Mark Antony and for all Romans?
4. What did Brutus say he was prepared to do if Rome needed it?
5. What was the crowd's response to the speech of Brutus?
6. What are two arguments Mark Antony uses in his speech to turn the crowd against the conspirators?

Begin filling in your notes/study guide for Act 3, Sc.2&3 of Julius Caesar. You may print the pages and fill them out, write down your answers to them on a separate sheet of paper, or type your responses on a computer.. You only need to focus on material from scene 2 of Act 3 today.

Wednesday, April 15
Read and annotate Act 3, Sc.3 of Julius Caesar just as you did scene 2. Then go ahead and finish the remainder of your notes/study guide focusing on scene 3. If you have any questions or if there is any information you are unable to find please make note of it and either email me or ask me about it at Friday's Zoom meeting.

Thursday, April 16: Make flashcards of the vocabulary found in your Act 3, Sc.2&3 notes/study guide. The word should be on one side of the flash card and the definition on the opposite side. Also be sure to review the flashcards you created for the vocabulary found in the Act 3, Sc.1 notes/study guide. Today begin reciting the lines from Brutus' Soliloquy aloud. It would be best to do this in front of a mirror or a small supportive audience of family or friends. You may also want to record your performance so that you can watch it and consider how you might improve your delivery.

Friday, April 17: Spend plenty of time reviewing your vocabulary from Act 3 of Julius Caesar. Continue reciting the lines from Brutus' Soliloquy aloud. Pay attention to the following: Are you speaking loudly enough? Are you speaking clearly enough? Are you speaking at a good rate or are you speaking too fast or too slow? If you feel nervous pay attention as to whether your nerves or your breathing is affecting your delivery. Are you speaking naturally? Ask for feedback from others.

Julius Caesar Act 3, Scene 2&3 Notes & Study Guide:

Please write notes on the characters and settings below in your own words. You may include some brief quotes but don't just copy passages from the book.

Characters:

Brutus: _____

_____

_____

Mark Antony: _____

_____

_____

Servant of Mark Antony: _____

_____

_____

Cinna the Poet: _____

_____

People, Places and Things:

The Nervii: _____

Caesar's angel: _____

_____

_____

Fortune: _____

_____

_____

The marketplace: _____

_____

_____

There are definitions provided for you for the vocabulary words below. Write the line number where the word is found beside it. In your book, underline the line(s) where the word is found and highlight the vocabulary word.

Vocabulary:

legacy: an inheritance i.e. an amount of money or property left in a will; anything handed or passed down from one individual, generation etc. to the next

compel: to force or oblige someone to do something

vanquished: thoroughly defeated

marred: disfigured, damaged or spoiled, made imperfect or less attractive

orator a public speaker, especially one who is eloquent or skilled

Quotes: In the quotes below identify who is speaking or what is being described.

"Had you rather Caesar were living, and die all slaves, than that Caesar were dead, to live all freemen? As Caesar loved me, I weep for him. As he was fortunate, I rejoice at it. As he was valiant, I honor him. But, as he was ambitious, I slew him.

(Who is speaking here?)

_____

"Judge, O you gods, how dearly Caesar loved him!

This was the most unkindest cut of all.

For when the noble Caesar saw him stab,

Ingratitude, more strong than traitors arms,

Quite vanquished him. Then burst his mighty heart,

And, in his mantle muffling up his face,

Even at the base of Pompey's statue

(Which all the while ran blood) great Caesar fell."

(Who is speaking here and who is being described [not Caesar]?)

_____   _____

"I dreamt tonight that I did feast with Caesar,

And things unluckily change my fantasy.

I have no will to wander forth out of doors,

Yet something leads me forth."

 (Who is speaking here?)

_____

Remote Learning Packet

NB: Please keep all work produced this week. Details regarding how to turn in this work will be forthcoming.

April 13-17, 2020
Course: Pre-Algebra
Teacher(s): Mrs. Frank leslie.frank@greatheartsirving.org
Mrs. Voltin mary.voltin@greatheartsirving.org

Weekly Plan:

Monday, April 13
☐ Powers Speed Test
☐ Lesson 10-1 Square Roots

Tuesday, April 14
☐ Roots Speed Test
☐ Lesson 10-1 Square Roots

Wednesday, April 15
☐ Subtraction Speed Test
☐ Lesson 10-4 The Pythagorean Theorem

Thursday, April 16
☐ Multiplication Speed Test
☐ Lesson 10-4 The Pythagorean Theorem

Friday, April 17
☐ Division Speed Test
☐ Lesson 10-4 The Pythagorean Theorem

Statement of Academic Honesty

I affirm that the work completed from the packet is mine and that I completed it independently.

I affirm that, to the best of my knowledge, my child completed this work independently

_____
Student Signature

_____
Parent Signature

Monday, April 13

This week, we will begin covering new material. This will require some determined effort on your part. You will need to read the lesson yourself, try the examples on your own, and then contact me by email if you do not understand the new concept.

1. Your speed test for the day will be the powers speed test. As you did the last two weeks, time yourself, and write the time it took you to complete the entire test at the top of the page. After you have finished the test, use the answer key to check for accuracy. Write your score at the top of the page.
2. Read lesson 10-1, Square Roots, on page 356. Work the Class Exercises on page 356-357, #1-15, all.

Please do not look at your answer key until you have worked every problem!

Tuesday, April 14

1. Your speed test for today will be the roots speed test. This is the hardest test, but this is the subject that we're covering right now. **You only have to do the first column of the test.** We are just covering square roots, so you don't need to do the cubic roots, fourth roots, or fifth roots! (However, if you want to try...please do!) You might not get many of them right. That is OK!
2. Review lesson 10-1. If you would like some more help, you can go here:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-square-roots/v/introduction-to-square-roots?modal=1

And here:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-square-roots/v/understanding-square-roots?modal=1

Your actual assignment for today is HW 10-1, pg. 357, Written Exercises, #2-32, evens.

Wednesday, April 15

1. Your speed test for today will be subtraction.
2. Read lesson 10-4 on pages 364-365. This is a very important concept, so read it slowly and carefully! Try working the examples as you read through the lesson. Go back and re-read the lesson again. Then work the Class Exercises, all of them, on page 365.

Thursday, April 16

1. Your speed test for today will be multiplication.
2. Re-read lesson 10-4. If you need more help, you can go here:

https://www.khanacademy.org/math/basic-geo/basic-geometry-pythagorean-theorem/geo-pythagorean-theorem/v/the-pythagorean-theorem

   Your assignment for today is HW 10.4, Written Exercises, page 366, #2-18, evens, #22, 24. Don't forget that you can use the square root table on page 528 of your textbook to help solve #14-18.

Friday, April 17

1. Your speed test for today will be division.
2. Re-read lesson 10-4. Go back to the link above if you need more help. Your homework assignment for today is HW 10-4, Problems, pages 366-368, #1-6, all. You may use a calculator to find square roots that are not on the table on page 528.

2 +3	8 +4	2 +9	7 +2	8 +8
4 +6	9 +5	7 +7	6 +8	3 +5
7 +8	4 +7	5 +7	2 +5	9 +6
3 +9	3 +3	7 +3	3 +4	8 +2
5 +4	6 +7	4 +2	9 +4	6 +3
6 +6	8 +9	5 +5	6 +2	9 +9
7 +9	4 +4	8 +3	5 +6	8 +5

5	12	11	9	16
- 2	- 4	- 9	- 7	- 8
10	14	14	14	8
- 6	- 5	- 7	- 6	- 3
15	11	12	7	15
- 7	- 4	- 7	- 2	- 6
12	6	10	7	10
- 9	- 3	- 3	- 4	- 8
9	13	6	13	9
- 4	- 7	- 2	- 9	- 3
12	17	10	8	18
- 6	- 9	- 5	- 6	- 9
16	8	11	11	13
- 9	- 4	- 3	- 6	- 5

2 x 3	8 x 4	2 x 9	7 x 2	8 x 8
4 x 6	9 x 5	7 x 7	6 x 8	3 x 5
7 x 8	4 x 7	5 x 7	2 x 5	9 x 6
3 x 9	3 x 3	7 x 3	3 x 4	8 x 2
5 x 4	6 x 7	4 x 2	9 x 4	6 x 3
6 x 6	8 x 9	5 x 5	6 x 2	9 x 9
7 x 9	4 x 4	8 x 3	5 x 6	8 x 5

6 ÷ 3	32 ÷ 4	18 ÷ 9	14 ÷ 2	64 ÷ 8
24 ÷ 6	45 ÷ 5	49 ÷ 7	48 ÷ 8	15 ÷ 5
56 ÷ 8	28 ÷ 7	35 ÷ 7	10 ÷ 5	54 ÷ 6
27 ÷ 9	9 ÷ 3	21 ÷ 3	12 ÷ 4	16 ÷ 2
20 ÷ 4	42 ÷7	8 ÷ 2	36 ÷ 4	18 ÷ 3
36 ÷ 6	72 ÷ 9	25 ÷ 5	12 ÷ 2	81 ÷ 9
63 ÷ 9	16 ÷ 4	24 ÷ 3	30 ÷ 6	40 ÷ 5

Name_____

Section_____

$2^2 =$	$2^3 =$	$2^4 =$	$2^5 =$
$3^2 =$	$3^3 =$	$3^4 =$	$3^5 =$
$4^2 =$	$4^3 =$	$4^4 =$	$4^5 =$
$5^2 =$	$5^3 =$	$5^4 =$	$5^5 =$
$6^2 =$	$6^3 =$		
$7^2 =$	$7^3 =$		
$8^2 =$	$8^3 =$		
$9^2 =$	$9^3 =$		
$10^2 =$	$10^3 =$		
$11^2 =$			
$12^2 =$			
$13^2 =$			
$14^2 =$			
$15^2 =$			
$16^2 =$			
$17^2 =$			
$18^2 =$			
$19^2 =$			
$20^2 =$			

Name_____

Section_____

$\sqrt[2]{36} =$ $\sqrt[3]{27} =$ $\sqrt[4]{81} =$ $\sqrt[5]{3125} =$

$\sqrt[2]{361} =$ $\sqrt[3]{1000} =$ $\sqrt[4]{625} =$ $\sqrt[5]{243} =$

$\sqrt[2]{64} =$ $\sqrt[3]{216} =$ $\sqrt[4]{256} =$ $\sqrt[5]{1024} =$

$\sqrt[2]{25} =$ $\sqrt[3]{8} =$ $\sqrt[4]{16} =$ $\sqrt[5]{32} =$

$\sqrt[2]{100} =$ $\sqrt[3]{729} =$

$\sqrt[2]{4} =$ $\sqrt[3]{64} =$

$\sqrt[2]{121} =$ $\sqrt[3]{512} =$

$\sqrt[2]{16} =$ $\sqrt[3]{343} =$

$\sqrt[2]{169} =$ $\sqrt[3]{125} =$

$\sqrt[2]{49} =$

$\sqrt[2]{289} =$

$\sqrt[2]{400} =$

$\sqrt[2]{9} =$

$\sqrt[2]{196} =$

$\sqrt[2]{324} =$

$\sqrt[2]{256} =$

$\sqrt[2]{225} =$

$\sqrt[2]{144} =$

2 +3 **5**	8 +4 **12**	2 +9 **11**	7 +2 **9**	8 +8 **16**
4 +6 **10**	9 +5 **14**	7 +7 **14**	6 +8 **14**	3 +5 **8**
7 +8 **15**	4 +7 **11**	5 +7 **12**	2 +5 **7**	9 +6 **15**
3 +9 **12**	3 +3 **6**	7 +3 **10**	3 +4 **7**	8 +2 **10**
5 +4 **9**	6 +7 **13**	4 +2 **6**	9 +4 **13**	6 +3 **9**
6 +6 **12**	8 +9 **17**	5 +5 **10**	6 +2 **8**	9 +9 **18**
7 +9 **16**	4 +4 **8**	8 +3 **11**	5 +6 **11**	8 +5 **13**

5 - 2 **3**	12 - 4 **8**	11 - 9 **2**	9 - 7 **2**	16 - 8 **8**
10 - 6 **4**	14 - 5 **9**	14 - 7 **7**	14 - 6 **8**	8 - 3 **5**
15 - 7 **8**	11 - 4 **7**	12 - 7 **5**	7 - 2 **5**	15 - 6 **9**
12 - 9 **3**	6 - 3 **3**	10 - 3 **7**	7 - 4 **3**	10 - 8 **2**
9 - 4 **5**	13 - 7 **6**	6 - 2 **4**	13 - 9 **4**	9 - 3 **6**
12 - 6 **6**	17 - 9 **8**	10 - 5 **5**	8 - 6 **2**	18 - 9 **9**
16 - 9 **7**	8 - 4 **4**	11 - 3 **8**	11 - 6 **5**	13 - 5 **8**

2	8	2	7	8
x 3	x 4	x 9	x 2	x 8
6	**32**	**18**	**14**	**64**
4	9	7	6	3
x 6	x 5	x 7	x 8	x 5
24	**45**	**49**	**48**	**15**
7	4	5	2	9
x 8	x 7	x 7	x 5	x 6
56	**28**	**35**	**10**	**54**
3	3	7	3	8
x 9	x 3	x 3	x 4	x 2
27	**9**	**21**	**12**	**16**
5	6	4	9	6
x 4	x 7	x 2	x 4	x 3
20	**42**	**8**	**36**	**18**
6	8	5	6	9
x 6	x 9	x 5	x 2	x 9
36	**72**	**25**	**12**	**81**
7	4	8	5	8
x 9	x 4	x 3	x 6	x 5
63	**16**	**24**	**30**	**40**

6	32	18	14	64
÷ 3	÷ 4	÷ 9	÷ 2	÷ 8
2	**8**	**2**	**7**	**8**

24	45	49	48	15
÷ 6	÷ 5	÷ 7	÷ 8	÷ 5
4	**9**	**7**	**6**	**3**

56	28	35	10	54
÷ 8	÷ 7	÷ 7	÷ 5	÷ 6
7	**4**	**5**	**2**	**9**

27	9	21	12	16
÷ 9	÷ 3	÷ 3	÷ 4	÷ 2
3	**3**	**7**	**3**	**8**

20	42	8	36	18
÷ 4	÷ 7	÷ 2	÷ 4	÷ 3
5	**6**	**4**	**9**	**6**

36	72	25	12	81
÷ 6	÷ 9	÷ 5	÷ 2	÷ 9
6	**8**	**5**	**6**	**9**

63	16	24	30	40
÷ 9	÷ 4	÷ 3	÷ 6	÷ 5
7	**4**	**8**	**5**	**8**

Name_____
Section_____

$2^2 =$ 4 $2^3 =$ 8 $2^4 =$ 16 $2^5 =$ 32

$3^2 =$ 9 $3^3 =$ 27 $3^4 =$ 81 $3^5 =$ 243

$4^2 =$ 16 $4^3 =$ 64 $4^4 =$ 256 $4^5 =$ 1024

$5^2 =$ 25 $5^3 =$ 125 $5^4 =$ 625 $5^5 =$ 3125

$6^2 =$ 36 $6^3 =$ 216

$7^2 =$ 49 $7^3 =$ 343

$8^2 =$ 64 $8^3 =$ 512

$9^2 =$ 81 $9^3 =$ 729

$10^2 =$ 100 $10^3 =$ 1000

$11^2 =$ 121

$12^2 =$ 144

$13^2 =$ 169

$14^2 =$ 196

$15^2 =$ 225

$16^2 =$ 256

$17^2 =$ 289

$18^2 =$ 324

$19^2 =$ 361

$20^2 =$ 400

Name_____

Section_____

$\sqrt[2]{36} = 6$ $\sqrt[3]{27} = 3$ $\sqrt[4]{81} = 3$ $\sqrt[5]{3125} = 5$

$\sqrt[2]{361} = 19$ $\sqrt[3]{1000} = 10$ $\sqrt[4]{625} = 5$ $\sqrt[5]{243} = 3$

$\sqrt[2]{64} = 8$ $\sqrt[3]{216} = 6$ $\sqrt[4]{256} = 4$ $\sqrt[5]{1024} = 4$

$\sqrt[2]{25} = 5$ $\sqrt[3]{8} = 2$ $\sqrt[4]{16} = 2$ $\sqrt[5]{32} = 2$

$\sqrt[2]{100} = 10$ $\sqrt[3]{729} = 9$

$\sqrt[2]{4} = 2$ $\sqrt[3]{64} = 4$

$\sqrt[2]{121} = 11$ $\sqrt[3]{512} = 8$

$\sqrt[2]{16} = 4$ $\sqrt[3]{343} = 7$

$\sqrt[2]{169} = 13$ $\sqrt[3]{125} = 5$

$\sqrt[2]{49} = 7$

$\sqrt[2]{289} = 17$

$\sqrt[2]{400} = 20$

$\sqrt[2]{9} = 3$

$\sqrt[2]{196} = 14$

$\sqrt[2]{324} = 18$

$\sqrt[2]{256} = 16$

$\sqrt[2]{225} = 15$

$\sqrt[2]{144} = 12$

1. $\sqrt{7}$ = the positive square root of 7

2. $3\sqrt{10}$ = 3 times the positive square root of 10

3. $-\sqrt{81}$ = the opposite of the square root of 81 or the negative square root of 81

4. $\sqrt{64}$ = the positive square root of 64

5. $2\sqrt{14}$ = 2 times the positive square root of 14 <u>or</u> 2 root 14

6. $\sqrt{16} = \boxed{4}$

7. $-\sqrt{36} = \boxed{-6}$

8. $\sqrt{21}$

$4 \cdot 4 = 16 \qquad 5 \cdot 5 = 25$

$\sqrt{16} < \sqrt{21} < \sqrt{25}$

$4 < \sqrt{21} < 5$

$\boxed{\text{between } 4 \text{ \& } 5}$

9. $\sqrt{70}$

$8 \cdot 8 = 64 \qquad 9 \cdot 9 = 81$

$\sqrt{64} < \sqrt{70} < \sqrt{81}$

$8 < \sqrt{70} < 9$

$\boxed{\text{between } 8 \text{ \& } 9}$

10. $\sqrt{50}$

$7 \cdot 7 = 49 \qquad 8 \cdot 8 = 64$

$\sqrt{49} < \sqrt{50} < \sqrt{64}$

$7 < \sqrt{50} < 8$

$\boxed{\text{between } 7 \text{ \& } 8}$

11. $-\sqrt{49} = \boxed{-7}$

12. $\sqrt{81} = \boxed{9}$

13. $\sqrt{69}$

$8 \cdot 8 = 64 \qquad 9 \cdot 9 = 81$

$\sqrt{64} < \sqrt{69} < \sqrt{81}$

$8 < \sqrt{69} < 9$

$\boxed{\text{between } 8 \text{ \& } 9}$

14. $-\sqrt{144} = \boxed{-12}$

15. $\sqrt{169} = \boxed{13}$

2. $\sqrt{64} = \boxed{8}$

4. $\sqrt{24}$ $4 \cdot 4 = 16$ $5 \cdot 5 = 25$
$\sqrt{16} < \sqrt{24} < \sqrt{25}$
$4 < \sqrt{24} < 5$
$\boxed{\text{between } 4 \& 5}$

6. $\sqrt{0} = \boxed{0}$

8. $\sqrt{13}$ $3 \cdot 3 = 9$ $4 \cdot 4 = 16$
$\sqrt{9} < \sqrt{13} < \sqrt{16}$
$3 < \sqrt{13} < 4$
$\boxed{\text{between } 3 \& 4}$

10. $\sqrt{9} = \boxed{3}$

12. $\sqrt{48}$ $6 \cdot 6 = 36$ $7 \cdot 7 = 49$
$\sqrt{36} < \sqrt{48} < \sqrt{49}$
$6 < \sqrt{48} < 7$
$\boxed{\text{between } 6 \& 7}$

14. $\sqrt{8^2} = \sqrt{64} = \boxed{8}$
＊Please note: the square root of
any number squared is that #!
$\sqrt{x^2} = x$ $\sqrt{4^2} = 4$ $\sqrt{36^2} = 36$

16. $\sqrt{25} + \sqrt{16} =$
$5 + 4 = \boxed{9}$

18. $\sqrt{144} + \sqrt{25} =$
$12 + 5 = \boxed{17}$

19. $\sqrt{79-61} = \sqrt{18}$ $4 \cdot 4 = 16$ $5 \cdot 5 = 25$
$\sqrt{16} < \sqrt{18} < \sqrt{25}$
$4 < \sqrt{18} < 5$
$\boxed{\text{between } 4 \& 5}$

20. $-\sqrt{66-2} = -\sqrt{64} = \boxed{-8}$

22. $\sqrt{9} + \sqrt{16} \underline{\quad} \sqrt{9+16}$
$3 + 4 \underline{\quad} \sqrt{25}$
$7 \geq 5$

24. $\sqrt{16} - \sqrt{9} \underline{\quad} \sqrt{16-9}$
$4 - 3 \underline{\quad} \sqrt{7}$ $2 \cdot 2 = 4$ $3 \cdot 3 = 9$
$1 \leq \sqrt{7}$ $\sqrt{4} < \sqrt{7} < \sqrt{9}$
$2 < \sqrt{7} < 3$

26. $\sqrt{4} \times \sqrt{9} \underline{\quad} \sqrt{4 \times 9}$
$2 \times 3 \underline{\quad} \sqrt{36}$
$6 = 6$

28. $2\sqrt{2} \underline{\quad} \sqrt{2 \times 2}$ $1 \cdot 1 = 1$ $2 \cdot 2 = 4$
$2\sqrt{2} \underline{\quad} \sqrt{4}$ $\sqrt{1} < \sqrt{2} < \sqrt{4}$
$2\sqrt{2} \geq 2$ $1 < \sqrt{2} < 2$
Two times a number greater
than 1 is greater than 2!

30. $\left(\sqrt{25}\right)^2 = \boxed{25}$

32. $\left(\sqrt{49}\right)^2 = \boxed{49}$
＊Please note:
The square root of any
number, squared, is that #!

$\left(\sqrt{x}\right)^2 = x$
$\left(\sqrt{36}\right)^2 = 36$
$\left(\sqrt{12}\right)^2 = 12$

HW 10.4, pg. 365 Class Exercises, all   WEDNESDAY

1. $10 \times 10 = \boxed{100 \text{ sq. units}}$

2. $13 \times 13 = \boxed{169 \text{ sq. units}}$

3. $6^2 \underline{\quad} 4^2 + 5^2$
   $36 \underline{\quad} 16 + 25$
   $\boxed{36 \neq 41}$

4. $5^2 \underline{\quad} 3^2 + 4^2$
   $25 \underline{\quad} 9 + 16$
   $\boxed{25 = 25}$

5. $10^2 \underline{\quad} 6^2 + 8^2$
   $100 \underline{\quad} 36 + 64$
   $\boxed{100 = 100}$

6. 3, 4, 5

   $3^2 + 4^2 \bigcirc 5^2$
   $9 + 16 \bigcirc 25$
   $25 = 25$
   $\boxed{\text{yes!}}$

7. 7, 24, 25

   $7^2 + 24^2 \bigcirc 25^2$ 24 576
   $49 + 576 \bigcirc 625$ $\times 24$ $+49$
   $625 = 625$ $\overline{\quad 96\quad}$ $\overline{625}$
   $\boxed{\text{yes}}$ $\underline{480}$
                          $\overline{576}$

8. 5, 10, 12

   $5^2 + 10^2 \bigcirc 12^2$
   $25 + 100 \bigcirc 144$
   $125 \neq 144$
   $\boxed{\text{no}}$

9. 10, 24, 26 $\overset{3}{26}$
                                 $\times 26$
   $10^2 + 24^2 \bigcirc 26^2$ $\overline{156}$
   $100 + 576 \quad 676$ $\underline{520}$
   $676 = 676$ $\overline{676}$
   $\boxed{\text{yes}}$

2. $5^2 + 12^2 =$
$25 + 144 = \boxed{169 \text{ sq. units}}$

4. 6, 8, 10

$6^2 + 8^2 \bigcirc 10^2$
$36 + 64 \quad 100$
$100 = 100$
$\boxed{\text{yes}}$

6. 16 cm, 30 cm, 34 cm

$16^2 + 30^2 \bigcirc 34^2$
$256 + 900 \quad 1156$
$1156 = 1156$
$\boxed{\text{yes}}$

$\begin{array}{c|c} 16 & 34 \\ \times 16 & \times 34 \\ \hline 96 & 136 \\ 160 & 1020 \\ \hline 256 & 1156 \end{array}$

8. 1.5 mm 2.0 mm 2.5 mm

$(1.5)^2 + (2)^2 \bigcirc (2.5)^2$
$2.25 + 4 \quad 6.25$
$6.25 = 6.25$
$\boxed{\text{yes}}$

$\begin{array}{r} 1.5 \\ \times 1.5 \\ \hline 75 \\ 150 \\ \hline 2.25 \end{array}$

10. 9 m, 21 m, 23 m

$9^2 + 21^2 \bigcirc 23^2$
$81 + 441 \quad 529$
$522 \neq 529$
$\boxed{\text{no}}$

$\begin{array}{c|c} 21 & 23 \\ \times 21 & \times 23 \\ \hline 21 & 69 \\ 420 & 460 \\ \hline 441 & 529 \end{array}$

12. 9 km, 40 km, 41 km

$9^2 + 40^2 \bigcirc 41^2$
$81 + 1600 \quad 1681$
$1681 = 1681$
$\boxed{\text{yes}}$

$\begin{array}{r} 41 \\ \times 41 \\ \hline 41 \\ 1640 \\ \hline 1681 \end{array}$

14.
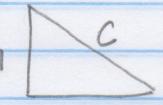
$2^2 + 1^2 = c^2$
$4 + 1 = c^2$
$5 = c^2$
$c = \sqrt{5}$
$\boxed{c = 2.24}$

16.
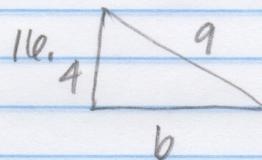
$4^2 + b^2 = 9^2$
$16 + b^2 = 81$
$\quad -16 \qquad -16$
$b^2 = 65$
$b = \sqrt{65} = \boxed{8.06}$

18.
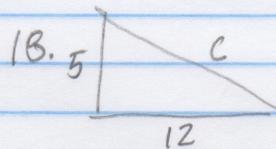
$5^2 + 12^2 = c^2$
$25 + 144 = c^2$
$169 = c^2$
$c = \sqrt{169} = \boxed{13}$

22. m = 5, n = 1

$a = m^2 - n^2 = 5^2 - 1^2 = 25 - 1 = \boxed{24}$
$b = 2 \cdot m \cdot n = 2 \cdot 5 \cdot 1 = \boxed{10}$
$c = m^2 + n^2 = 5^2 + 1^2 = 25 + 1 = \boxed{26}$

24. m = 4, n = 2

$a = m^2 - n^2 = 4^2 - 2^2 = 16 - 4 = \boxed{12}$
$b = 2 \cdot m \cdot n = 2 \cdot 4 \cdot 2 = \boxed{16}$
$c = m^2 + n^2 = 4^2 + 2^2 = 16 + 4 = \boxed{20}$

1.
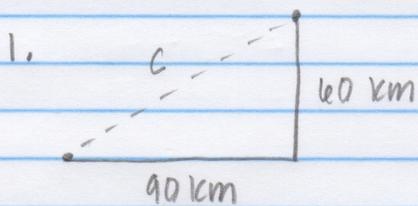
$$90^2 + 60^2 = c^2$$
$$8100 + 3600 = c^2$$
$$11700 = c^2$$
$$c = \sqrt{11700} = \boxed{108.2 \text{ cm}}$$
Use a calculator!
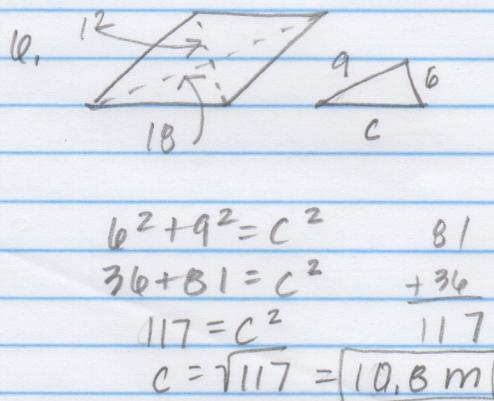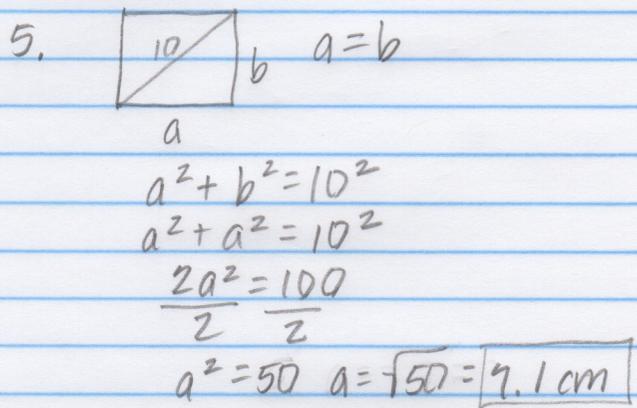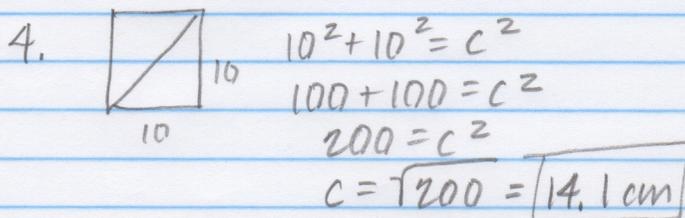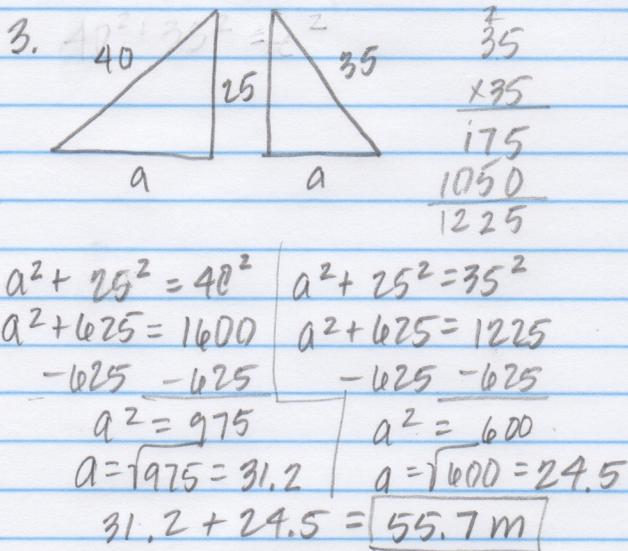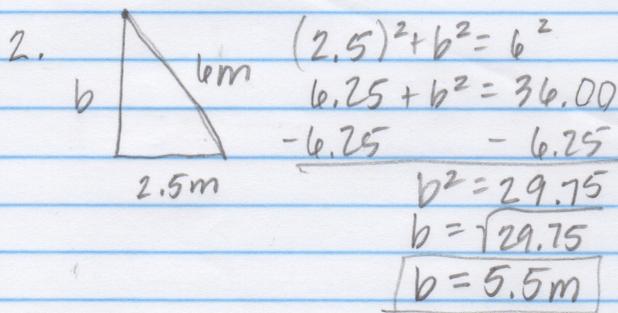
2.

$$(2.5)^2 + b^2 = 6^2$$
$$6.25 + b^2 = 36.00$$
$$\underline{-6.25 \qquad -6.25}$$
$$b^2 = 29.75$$
$$b = \sqrt{29.75}$$
$$\boxed{b = 5.5 \text{ m}}$$

3.

$$\begin{array}{c} 35 \\ \times 35 \\ \hline 175 \\ 1050 \\ \hline 1225 \end{array}$$

$a^2 + 25^2 = 40^2$	$a^2 + 25^2 = 35^2$
$a^2 + 625 = 1600$	$a^2 + 625 = 1225$
$-625 \quad -625$	$-625 \quad -625$
$a^2 = 975$	$a^2 = 600$
$a = \sqrt{975} = 31.2$	$a = \sqrt{600} = 24.5$

$$31.2 + 24.5 = \boxed{55.7 \text{ m}}$$

4.

$$10^2 + 10^2 = c^2$$
$$100 + 100 = c^2$$
$$200 = c^2$$
$$c = \sqrt{200} = \boxed{14.1 \text{ cm}}$$

5.

$$a^2 + b^2 = 10^2$$
$$a^2 + a^2 = 10^2$$
$$\frac{2a^2}{2} = \frac{100}{2}$$
$$a^2 = 50 \quad a = \sqrt{50} = \boxed{7.1 \text{ cm}}$$

6.

$$6^2 + 9^2 = c^2 \qquad \begin{array}{r} 81 \\ +36 \\ \hline 117 \end{array}$$
$$36 + 81 = c^2$$
$$117 = c^2$$
$$c = \sqrt{117} = \boxed{10.8 \text{ m}}$$

Remote Learning Packet

NB: Please keep all work produced this week. Details regarding how to turn in this work will be forthcoming.

April 13-17, 2020
Course: Music
Teacher(s): Mr. Zuno leonardo.zunofernandez@greatheartsirving.org

Weekly Plan:

Monday, April 13

☐ 15 minutes of review - Using terminology in Week 1 and Week 2 readings, write 5 sentences that describe the music you listened to last week (use at least 5 different terms).

☐ Check your work: Also, please go through the Week 2 answers and check your work for accuracy. If you have any questions, please let me know so I can explain or clarify.

Tuesday, April 14

☐ Read: Ch 3 - Scales and Melody for 10 minutes

☐ Summarize: Write a summary for 5 minutes (instructions below)

Wednesday, April 15

☐ Listen to WRR 101.1 (on the radio or through online streaming) for 12 minutes and follow the next step.

☐ Please fill in the attached listening guide. Refer to a list of terminology provided, in order to use these terms accurately. If you need further clarity on any of these terms, please research them further and be ready to ask questions during our optional office hour.

Thursday, April 16

☐ Please answer the questions about Week 3 melodies.

Friday, April 17

☐ Watch and listen to Alma Deustscher's Siren Sounds Waltz, and please write a review similar to the one you did on Wednesday, using more terminology from that worksheet.

Statement of Academic Honesty

I affirm that the work completed from the packet is mine and that I completed it independently.

I affirm that, to the best of my knowledge, my child completed this work independently

_____

Student Signature

_____

Parent Signature

Details for each assignment:
Monday, April 13

☐ 15 minutes of review - Using terminology in Week 1 and Week 2 readings, write 5 sentences that describe the music you listened to last week (use at least 5 different terms).

These include terms like: *beat, accent, meter, measure,* as well as *frequency*, *pitch*, and *noise*, as well as *amplitude*, *forte*, *piano*, *mezzo, tone color,* and *timbre*. If you have doubts about the meaning of these words, please re-read those sections and look up the definitions of these words.

☐ Check your work: Also, please go through the Week 2 answers and check your work for accuracy. If you have any questions, please let me know so I can explain or clarify.

Tuesday, April 14

☐ Read: Ch 3 - Scales and Melody for 10 minutes
☐ Answer the following questions:

-What is an *interval* in music?

-What is the interval between two pitch classes that share the same letter (Ex., A2 and A3)?

-How do men and women's voices complement each other? Are they usually on the same octave?

-Describe what is a *diatonic scale*, and how does solfege relate to it?

-What is a *chromatic scale*?

-What is a half step and a whole step? How are they part of the scale pattern?

-How are melodies formed by using scales? What is another name for a melody?

Wednesday, April 15

☐ Listen to WRR 101.1 (on the radio or through online streaming) for 12 minutes and follow the next step.

☐ Please fill in the attached listening guide. Refer to a list of terminology provided, in order to use these terms accurately. If you need further clarity on any of these terms, please research them further and be ready to ask questions during our optional office hour.

The radio announcer will often name the piece and composer either before or after it is played on the radio. You have to listen attentively to make sure you catch that piece of information. (If you stream online, it will show you the title and composer.) Be sure to include the title and composer on your listening guide worksheet. Keep in mind the following questions for discussion:

What was the tempo like? Were the melodies beautiful? Were there many instruments playing, and if so, which ones? What was the overall feel of the piece?

Thursday, April 16

☐ Please answer the questions about Week 3 melodies.

Write the solfege syllables for all of these melodies. They all begin with Do (the first note of each is Do). This is because each melody is in a different key, and Do is the main note of each of those keys.

Also, write numbers for counting the melody

Example: 1 2+ 3 4 = Quarter, 2 eights, quarter, quarter. And 1 2, 3-4 = quarter, quarter, half note.

Friday, April 17

☐ Watch and listen to Alma Deustscher's [Siren Sounds Waltz](), and please write a review similar to the one you did on Wednesday, using more terminology from that worksheet. Make sure you include your notes from your listening log and listening guide together in one place. This will make things easier for your final project.

*A note about the concert review: For obvious reasons, you are no longer required to attend a concert. Instead of doing that, you will gather information from your listening log and your notes from the readings I provide. You will take many notes over the next few weeks, so it is important that you keep these organized. In next week's packet, I will assign the final project, which will include listening to a concert with a variety of classical music, and you will write a paper about it. You will be expected to use the terminology provided in the weekly handouts. More details to come.

If you already turned in your concert review, you will still be expected to do all of these assignments, and your final project will be somewhat reduced.

56

FOR THE BEAUTY OF THE EARTH

Conrad Kocher (1786–1872)
Arranged by E. M.

Piano 1

Piano 2

MORNING HAS BROKEN

Gaelic
Arranged by E. M.

Handwritten notes at bottom:

- Simple triple met.
- Most common rhythm

Scales and Melody

A s we noted in Chapter 2, music generally does not use the total continuous range of musical sounds. Instead, it draws on only a limited number of fixed pitches. These pitches can be assembled in a collection called a **scale**. In effect, a scale is the pool of pitches available for making music.

1 Scales

There are many different scales used in the musical cultures of the world. From them, musicians everywhere build an infinite array of melodies and other musical structures. If you sing to yourself the melody of one of your favorite songs, you will have employed the pitches of a scale. But how do scales—in particular the scales basic to Western art music—work?

The Octave

Any two pitches will have a certain distance, or difference in highness and lowness, between them. Musicians call this distance an **interval**. Of the many different intervals used in music, one called the **octave** has a special character that makes it particularly important.

   If successive pitches are sounded one after another—say, running from low to high up the white keys on a piano—there comes a point at which a pitch seems in some sense to "duplicate" an earlier pitch, but at a higher level. This new pitch does not sound identical to the old one, but somehow the two sounds are very similar. They blend extremely well; they almost seem to melt into each other. This is the octave.

   What causes the phenomenon of octaves? Recall from Chapter 2 that when strings vibrate to produce sound, they vibrate not only along their full length but also in halves and other fractions (page 14). A vibrating string that is exactly half as long as another will *reinforce* the longer string's strongest overtone. This reinforcement causes the duplication effect of octaves.

   As strings go, so go vocal cords: When men and women sing along together, they automatically sing in octaves, duplicating each other's singing an octave or two apart. If you ask them, they will say they are singing "the same song"—not many will think of adding "at different octave levels."

Choral singing, the route by which millions of people have come to know and love music

As a result of the phenomenon of octaves, the full continuous range of pitches that we can hear falls into a series of "duplicating" segments. We divide these octave segments into smaller intervals, thereby creating scales.

The Diatonic Scale

The scale originally used in Western music is a set of seven pitches within the octave, called the **diatonic scale**. Dating from ancient Greek times, the diatonic scale is still in use today. When the first of the seven pitches is repeated at a higher duplicating pitch, the total is eight—hence the name *octave,* meaning "eight span."

Anyone who knows the series *do re mi fa sol la ti do* is at home with the diatonic scale. You can count out the octave for yourself starting with the first

A pioneer of modern design, the German American painter Josef Albers (1888–1976) produced twenty-seven of these wonderful treble clefs, all in different color combinations.

do as *one* and ending with the second *do* as *eight*. The set of white keys on a keyboard plays this scale. Shown in the following diagram is a keyboard and diatonic scale notes running through two octaves. The scale notes (pitches) are marked with their conventional letter names. Because there are seven pitches, only the letters up to G are used before returning to A.
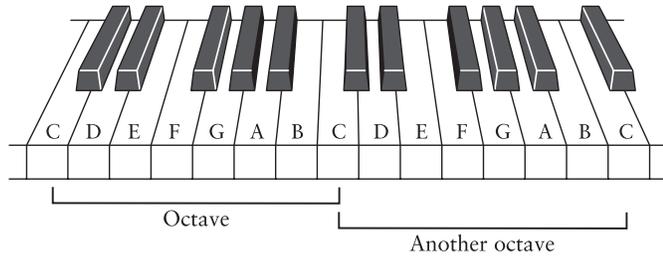
The Chromatic Scale

The diatonic scale was the original, basic scale of Western music. At a later period, five more pitches were added between certain of the seven pitches of the diatonic scale, making a total of twelve. This is the **chromatic scale**, represented by the complete set of white and black keys on a keyboard.

The chromatic scale did not make the diatonic scale obsolete. For centuries Western composers used the chromatic scale freely while favoring the diatonic scale that is embedded in it. Keyboards reflect this practice, with their chromatic notes set back and thinner, and colored differently from the diatonic ones.

These five extra pitches caused a problem for musical notation. The pitches of the diatonic scale are indicated on the lines and spaces of the staff (see the following diagram); there are no positions in between, so no place for the new five pitches. To solve this problem, symbols such as those shown in the margin were introduced. B♭ stands for B **flat,** the pitch inserted between A and B; C♯ stands for C **sharp,** the pitch between C and D, and so on. (For more detail on the notation of pitches, see Appendix B.)
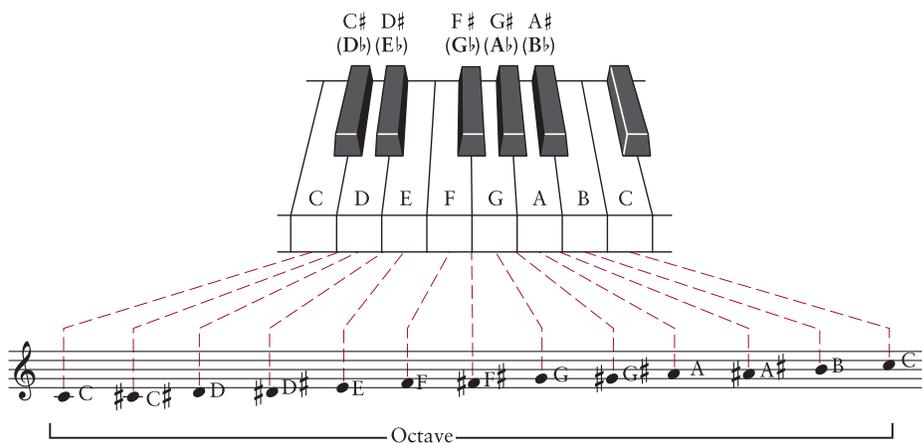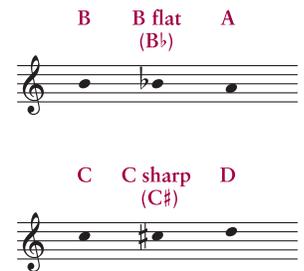
Half Steps and Whole Steps

You learned before that the difference, or distance, between any two pitches is called the interval between them. There are many different intervals between the notes of the chromatic scale, depending on which two notes you choose, including the octave that encompasses them all.

For our purposes, there are only two additional interval types that need be considered:

❧ The smallest interval is the **half step,** or semitone, which is the distance between any two successive notes of the chromatic scale. On a keyboard, a half step is the interval between the closest adjacent notes, white or black. The distance from E to F is a half step; so is the distance from C to C sharp (C♯), D to E flat (E♭), and so on.

As the smallest interval in regular use, the half step is also the smallest that most people can "hear" easily and identify. Many tunes, such as "The Battle Hymn of the Republic," end with two half steps, one half step going down and then the same one going up again ("His truth is *march-ing on*").

❧ The **whole step**, or whole tone, is equivalent to two half steps: C to D, D to E, E to F♯, and so on. "Three Blind Mice" starts with two whole steps, going down.

The chromatic scale consists exclusively of half steps. The diatonic scale, instead, includes both half steps and whole steps. As you can see in the keyboard picture below, between B and C and between E and F of the diatonic scale, the interval is a half step—there is no black key separating the white keys. Between the other pairs of adjacent notes, however, the interval is twice as big—a whole step.

In this way the diatonic and chromatic scales differ in the intervals between their adjacent pitches. In the following diagram, the two scales are shown in music notation in order to highlight the differences in their interval structure. The mixing of half steps and whole steps is a defining feature of the diatonic scale.
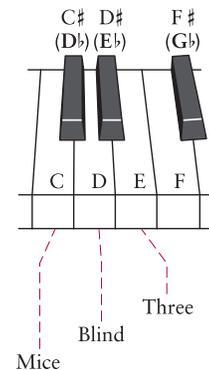
2 Melody

A **melody** is an organized series of pitches. Melodies can be built from any scale. Think for a moment of pitch and time as the two coordinates of a musical graph (see the diagram on page 29). A series of single pitches played in a certain rhythm will appear as dots, high or low, on the pitch/time grid. If we connect them by a line, we get a picture of the melody's overall shape or contour. And

in fact, musicians commonly speak of "melodic line," or simply "line," in this connection.

Melodies come in an unlimited array of shapes, and they convey a huge variety of emotional characters. A melody in which each note is higher than the last can seem to soar; a low note can feel like a setback; a long series of repeated notes on the same pitch can seem to wait ominously. The listener develops a real interest in how the line of a satisfactory melody is going to come out.

Of all music's structures, melody is the one that moves people the most, that seems to evoke human sentiment most directly. Familiar melodies register simple qualities of feeling instantly and strongly. These qualities vary widely: strong and assertive — like a bugle call — in "The Battle Hymn of the Republic," mournful in "Summertime" or "Yesterday," serene in "Amazing Grace," extroverted and cheerful in "Happy Birthday."
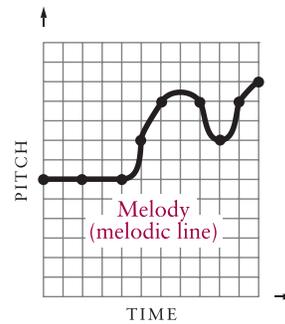
Tunes

A simple, easily singable, catchy melody such as a folk song, or a Christmas carol, or many popular songs is a **tune**. A tune is a special kind of melody. *Melody* is a term that includes tunes, but also much else.

"The Star-Spangled Banner," which everyone knows, illustrates the general characteristics of tunes. See the box on page 30.

Motives and Themes

Tunes are relatively short; longer pieces, such as symphonies, may have tunes embedded in them, but they also contain other musical material. Two terms are frequently encountered in connection with melody in longer pieces of music: **motive** and **theme**.

A *motive* is a distinctive fragment of melody, distinctive enough so that it will be easily recognized when it returns again and again within a long composition. Motives are shorter than tunes, shorter even than phrases of tunes; they can be as short as two notes. Probably the most famous motive in all music is the four-note DA-DA-DA-**DAAA** motive in Beethoven's Fifth Symphony. It is heard literally hundreds of times in the symphony, sometimes up front and sometimes as a restless element in the background.

DA DA DA   DAAA

The second term, *theme,* is the most general term for the basic subject matter of longer pieces of music. *Theme* is another name for "topic": The themes or topics of an essay you might write are the main points you announce, repeat, develop, and hammer home. A composer treats musical themes in much the same way. The theme of Beethoven's Fifth Symphony consists of the brief DA-DA-DA-**DAAA** motive repeated over and over at different pitches — that is, played in *sequence*. The famous theme of the last movement of Beethoven's Ninth Symphony is a full tune, which we will hear several times on the DVD (see page 35).

Characteristics of Tunes

The best way to grasp the characteristics of tunes is by singing one you know, either out loud or in your head.

❡ *Division into Phrases*   Tunes fall naturally into smaller sections, called **phrases**. This is, in fact, true of all melodies, but with tunes the division into phrases is particularly clear and sharp.

In tunes with words (that is, songs), phrases tend to coincide with poetic lines. Most lines in a song lyric end with a rhyming word and a punctuation mark such as a comma. These features clarify the musical phrase divisions:

> And the rockets' red *glare,*
> The bombs bursting in *air*

Singing a song requires breathing — and the natural tendency is to breathe at the end of phrases. You may not need to breathe after phrase 1 of our national anthem, but you'd better not wait any longer than phrase 2:

Oh — say can you see   By the dawn's ear-ly   light

❡ *Balance between Phrases*   In many tunes, all the phrases are two, four, or eight bars long. Blues tunes, for example, usually consist of three four-measure phrases, hence the term *twelve-bar blues.*

Most phrases of "The Star-Spangled Banner" are two measures long (see phrase 1 and phrase 2, above). But one phrase broadens out to four measures, with a fine effect: "Oh say, does that star-spangled banner yet wave." You don't want to breathe in the middle of this long phrase.

Other phrase lengths — three measures, five, and so on — can certainly occur in a tune and make for welcome contrast. For a good tune, the main requirement is that we sense a balance between the phrases, in terms of phrase lengths and in other terms, too, so that taken together the phrases add up to a well-proportioned whole.

❡ *Parallelism and Contrast*   Balance between phrases can be strengthened by means of *parallelism.* For example, phrases can have the same notes but different words ("Oh, say can you see," "Whose broad stripes and bright stars"). Others have the same rhythm but different pitches ("Oh, say can you see," "By the dawn's early light").

Sometimes phrases have the same general melodic shape, but one phrase is slightly higher or lower than the other ("And the rockets' red glare," "The bombs bursting in air"). Such duplication of a phrase at two or more different pitch levels, called **sequence**, occurs frequently in music, and is a hallmark of certain musical styles.

Composers also take care to make some phrases *contrast* with their neighbors — one phrase short, another

long, or one phrase low, another high (perhaps even *too* high, at "O'er the land of the *free*"). A tune with some parallel and some contrasting phrases will seem to have a satisfying coherence and yet will avoid monotony.

❡ *Climax and Cadence*   A good tune has *form:* a clear, purposeful beginning, a feeling of action in the middle, and a firm sense of winding down at the end.

Many tunes have a distinct high point, or **climax,** which their earlier portions seem to be heading toward. Feelings rise as voices soar; a melodic high point is always an emotional high point. The climax of our national anthem emphasizes what was felt to be the really crucial word in it — "free." Patriot Francis Scott Key put that word in that place. (Key wrote the words of "The Star-Spangled Banner" — the words only, adapted to an older melody.)

Then the later part of the tune relaxes from this climax, until it reaches a solid stopping place at the end. Emotionally, this is a point of relaxation and satisfaction. In a less definite way, the music also stops at earlier points in the tune — or, if it does not fully stop, at least seems to pause. The term for these interim stopping or pausing places is **cadence**.

Composers can write cadences with all possible shades of solidity and finality. "And the home of the brave" is a very final-sounding cadence; "That our flag was still there" has an interim feeling. The art of making cadences is one of the most subtle and basic processes in musical composition.

LISTENING EXERCISE 5

Melody and Tune

DVD
13

Division into phrases, parallelism and *contrast* between phrases, *sequence, climax,* and *cadence:* These are some characteristics of tunes that we have observed in "The Star-Spangled Banner." They are not just inert characteristics—they are what make the tune work, and they are present in tunes of all kinds. Our example is a song by George and Ira Gershwin from the Depression era, which was also the jazz era: "Who Cares?" from the musical comedy *Of Thee I Sing* (1932).

In "The Star-Spangled Banner" the *climax* matches the text perfectly at "free." Here "jubilee" makes a good match for the climax, and a melodic *sequence* fits the words "I care for you / you care for me" neatly. "Who cares?" comes at 0:57 on our recording by the great jazz singer Ella Fitzgerald, after an introduction (called the *verse*) typical of such songs—a sort of subsidiary tune, with words that will not be repeated.

0:12	**Verse:** Let it rain and thunder . . . (eight more lines)	Includes a long *sequence*
0:48		Tempo changes
0:57	**Tune:** Who cares if the sky cares to fall in the sea?	First phrase of the tune
	Who cares what banks fail in Yonkers?	*Contrasting* phrase
	Long as you've got a kiss that conquers.	*Parallel* phrase—starts like the preceding, ends higher
	Why should I care? Life is one long jubilee,	Threefold *sequence* ("Should I care / life is one / jubilee")
		Climax on "jubilee"
	So long as I care for you and you care for me.	Free *sequence* ("I care for you"/"You care for me")—*cadence*
1:55	**Tune** played by the jazz band, today's "big band" (with saxophone *breaks:* see page 382)	

Elements of music

Pitch   Dynamics   Tempo

Timbre   Texture   Form   Tonality

Instruments   Rhythm   Metre

Describe how THREE of the elements of music have been used in this piece.

1.

_____
_____
_____

2.

_____
_____
_____

3.

_____
_____
_____

What is the style of this piece?_____

Explain your choice.

_____
_____
_____

Elements of music

- The elements of music are combined to make a piece complete.
- It is the way that elements are combined that gives a song/piece from various styles and genres their distinctive sound.
- The following table gives ways in which the different elements may be described.

Elements	Definition	How it can be described
Melody	The organization of the notes.	Ascending, descending, treble, bass, repetitive wide/small range, stepwise, based on a scale, based on a triad, has sequences.
Rhythm	The arrangement of the relative lengths and shortness's of notes.	Long, short syncopated, repetitive, accented, regular, irregular, dotted, even, polyrhythmic
Meter	The reoccurring patter of accents or stress in the music. This is indicated by a time signature	Simple, Compound, Complex, duple, triple, quadruple
Harmony	The use of chords - usually to support a melody	Small/large number of chords, repetitive pattern, 12 bar blues, ice cream progression
Structure/ Form	The plan of a piece	Through composed, Binary A.B. Ternary A.B.A Rondo A.B.A.C.A Theme and variations, Verse/chorus, strophic form, introduction, phrase, section, coda
Texture	Refers to how many layers or voices are in a piece	Monophonic - one part. Also applies to doubling parts at an octave. Thin Homophonic - many - notes moving as part of a chord. Polyphonic - many. Many parts moving and stopping independently of each other thick
Timbre	Each instrument/voice has its own distinctive tone colour	Warm, bright, dull, metal, brilliant,
Tempo/ speed	The speed of the music	Fast slow, moderate, changing, speeds up, slows down, rallentando, accelerando
Dynamics/ Volume	The loudness or softness of the music	From very, very, soft through to very, very, loud, crescendo, diminuendo
Performing Media	Who or what is performing the music	Stings, winds, brass, percussion, keyboards, electronic. Voices â€" male, female
Tonality/ Modality	Its tone/key centre	Major, minor, modal, atonal

Remote Learning Packet

NB: Please keep all work produced this week. Details regarding how to turn in this work will be forthcoming.

April 13 - 17, 2020
Course: Physical Education
Teacher(s): James.Bascom@GreatHeartsIrving.org
John.Bascom@GreatHeartsIrving.org
Joseph.Turner@GreatHeartsIrving.org

Weekly Plan:

Monday, April 13
☐ Mobility Routine

Tuesday, April 14
☐ Workout

Wednesday, April 15
☐ Mobility Routine

Thursday, April 16
☐ Workout

Friday, April 17
☐ Mobility Routine

Statement of Academic Honesty

I affirm that the work completed from the packet is mine and that I completed it independently.

I affirm that, to the best of my knowledge, my child completed this work independently

_____
Student Signature

_____
Parent Signature

Monday, April 13

General Mobility Routine (15-20 minutes)

All students are expected to complete Part I. 9th Graders are expected to continue the workout and complete Part II (any middle school student that would like an extra challenge is more than welcome).

Note: no equipment is required for this workout and only a minimum of space. If space is a challenge make modifications as necessary.

PART I:

1. Warmup by running for 2 minutes.
2. Then begin in a resting squat for 30s
3. Bear crawl forwards about 5 feet then straight back.
4. Step back into a pushup position
5. Perform 5 pushups
6. Downdog for 30s
7. Updog for 30s
8. Return to a pushup position
9. Perform 5 pushups

10. Stand up & perform 20 jumping jacks, 10 squats, 10 lunges, and 5 burpees
11. Return to a resting squat for 30 seconds
12. While in resting squat, perform 2 shoulder screws forwards, then 2 backwards, both sides
13. Bear Crawl sideways about 5 feet then return straight back
14. Step back into a pushup position
15. Step your right foot up directly outside your right hand
16. Then reach straight up toward the sky with your right hand & hold for 30s
17. Return to pushup position
18. Step your left foot up directly outside your left hand
19. Then reach straight up toward the sky with your left hand & hold for 30s

20. Return to pushup position
21. 5 pushups
22. Step your feet up to your hands and return to a resting squat
23. Remaining in the squat, grab your left ankle with your right hand and reach straight up toward the sky with your left hand & hold for 30s
24. Remaining in the squat, grab your right ankle with your left hand and reach straight up toward the sky with your right hand & hold for 30s

25. Hands down behind you Crab Walk forwards about 5 feet then straight back
26. Stand up & perform 20 jumping jacks, 10 squats, 10 lunges, and 5 burpees
27. Perform 3 slow Jefferson Curls
28. Rolling Bear Crawl x1 revolution one direction
29. Back Bridge for about 10-15 seconds
30. Rolling Bear Crawl x1 revolution in the opposite direction
31. Find a low hanging branch, pullup bar, ledge, rings, etc. to hang from for as long as you can hold

PART II:

1. Get into a plank
2. Alternate touching opposite elbow and knee for a total of 10 touches
3. Gorilla Hop x2 to the right
4. Gorilla Hop x 2 back to the left
5. Stand and perform 10 steam engine squats (fingers locked behind your head, every time you stand up from a squat touch opposite knee/elbow)
6. Hurdler's walk x6 steps forward
7. Hurdler's walk x6 steps backward
8. Frog Hop x2 forwards
9. Frog Hop x2 backwards

10. Get into a long lunge position
11. Keeping front foot flat on the ground, without touching the back knee to the ground, and trying to keep torso straight up and down slowly lower hips toward the ground. Hold for 15 seconds
12. Switch legs and repeat (hold for 15 seconds)
13. 3 slow Jefferson Curls
14. Rolling Bear Crawl x1 revolution one direction
15. Back Bridge for about 10-15 seconds
16. Rolling Bear Crawl x1 revolution in the opposite direction
17. Find a low hanging branch, pullup bar, ledge, rings, etc. to hang from for as long as you can hold

Tuesday, April 14

Warmup:
1. 3 minute warmup jog
2. 10 jumping back, 5 squats, 1 pushup x3

Workout:
The workout today is a High Intensity Interval Training (HIIT) workout. All this means is that during each set you will be doing as many exercises as possible at maximum intensity for a set amount of time then resting for a set amount of time. It will be up to you to choose exactly what your work/rest times are, but these are our recommendations: 6th grade - 30 seconds work / 30 seconds rest; 7th - grade 35 seconds work / 25 seconds rest; 8th grade - 40 seconds work / 20 seconds rest; 9th grade - 45 seconds work / 15 seconds rest. Remember, these are just guidelines. The harder you make this workout for yourself the better for you it will be.

Set 1. Shuttle run - sprint back and forth between two lines approximately 10 meters apart
Set 2. Burpees
Set 3. One legged hops - using the same two lines, 10 meters apart, hop on one leg one direction and the other leg back
Set 3. Alternate 6 squat jumps, 6 jump lunges, 6 jumping jacks

REPEAT THIS SEQUENCE AT MAXIMUM INTENSITY FOR 12 MINUTES

Nota Bene: Depending on what equipment you have available there are a lot of fun options you could throw in: Box jumps, box jump burpees, jump rope, slam ball exercises, hitting a tire with a sledge hammer. Feel free to add any of these or similar high intensity exercises to this workout.

Wednesday, April 15

Repeat *General Mobility Routine (15-20 minutes)*

Thursday, April 16

Warmup:
6 minute jog

Workout:
6th grade: rest 45 seconds in between each round
7th grade: rest 30 seconds in between each round
8th grade: rest 15 seconds in between each round
9th grade: no rest in between each round

Round 1	Round 2	Round 3	Round 4
10 second plank	15 second plank	20 second plank	30 second plank
Bear crawl 5 meters	Bear Crawl 10 meters	Bear Crawl 5 meters	Bear Crawl 10 meters
5 pushups	Max reps pushup set	5 pushups	Max reps pushup set
10 second plank	Bear Crawl 10 meters	20 second plank	Bear Crawl 10 meters
10 jumping jacks	Crab Walk 10 meters	20 jumping jacks	Crab Walk 10 meters
	50 jumping jacks		100 jumping jacks
	Crab walk 10 meters		Crab Walk 10 meters

Friday, April 17

Repeat *General Mobility Routine (15-20 minutes)*

Remote Learning Packet

NB: Please keep all work produced this week. Details regarding how to turn in this work will be forthcoming.

April 13-17, 2020

Course: 7 Science

Teacher(s): Miss Weisse natalie.weisse@greatheartsirving.org

Mrs. Voltin mary.voltin@greatheartsirving.org

Weekly Plan:

Monday, April 13
- ☐ Review All Nervous System Notes
- ☐ Take Nervous System Quiz

Tuesday, April 14
- ☐ Read and take notes from *The Teacher Notes* below on the *Excretory System.*
- ☐ Make Vocabulary Foldable.

Wednesday, April 15
- ☐ Review Excretory Notes
- ☐ Study the Excretory System Anatomy
- ☐ Read and Take Notes on *The Path of Blood Through the Excretory System*
- ☐ Quiz yourself on the Excretory Anatomy

Thursday, April 16
- ☐ Review all Excretory System Notes from this week
- ☐ Read and take notes on the *Nephron Anatomy* and on the *Path of Blood & Waste Through the Nephron.*
- ☐ Quiz yourself on the Excretory *and* Nephron Anatomy

Friday, April 17
- ☐ Review all Excretory System Notes from this week
- ☐ Quiz yourself on the Excretory *and* Nephron Anatomy
- ☐ Read the section of the book on the Excretory System (pages 445-450)
- ☐ Complete the 5 questions on page 450 on a new piece of paper with a full heading.

Statement of Academic Honesty

I affirm that the work completed from the packet is mine and that I completed it independently.

I affirm that, to the best of my knowledge, my child completed this work independently

_____
Student Signature

_____
Parent Signature

Monday, April 13

➔ Review all your notes from the last two weeks.

➔ Complete the "quiz" below. You may use your notes but you *should not* consult your parents, siblings, or peers. Write your answer on a new sheet of paper with a full heading.

NERVOUS SYSTEM QUIZ

Directions: Write the letter of the best answer for each statement below.

1. A change or signal in the environment that makes the nervous system react is called a
   - a. stimulus.
   - b. response.
   - c. receptor.
   - d. Synapse.

2. The structures that carry messages toward a neuron's cell body are
   - a. Axons.
   - b. Dendrites.
   - c. Nerves.
   - d. impulses

3. Which structure links the brain and the peripheral nervous system?
   - a. the cerebrum
   - b. the cerebellum
   - c. the axon
   - d. the spinal cord

4. Which structure of the neuron transfers or passes on the messages being sent from the dendrites.
   - a. the cell body
   - b. the axon
   - c. the nucleus
   - d. Other dendrites

Directions: If the statement is true, write true. If the statement is false, change the underlined word or words to make the statement true.

5. A nerve message is also called a <u>nerve impulse</u>.

6. The Central Nervous System has three main parts**:** <u>the Brain, the Spinal Cord, and Sensory Organs.</u>

7. The three types of Neurons are: <u>Sensory Neurons, Motor Neurons, and Interneurons.</u>

8. <u>Sensory Neurons</u> get information from sense organs.

9.<u>Interneurons</u> send responses from the brain to the muscles to get things done.

Directions: Answer each question in 1-3 complete sentences.

9. What is the same about and what is different about the autonomic and somatic nervous systems?

10. As a man walks barefoot along a beach, he steps on a sharp shell. His foot automatically jerks upward, even before he feels pain. What process is this an example of? How does it help protect the man?

Tuesday, April 14

➔ Read and take notes from *The Teacher Notes* below on the *Excretory System.*

➔ Use your book (pages 445-450) to define the following words. Create a foldable if you'd like!
   ◆ excretion
   ◆ urea
   ◆ kidneys
   ◆ urethra
   ◆ urine
   ◆ ureters
   ◆ Nephron
   ◆ bladder

TEACHER NOTES

Excretory System

Latin "ex" + "cernere" ⇒ To Excrete is
    "   "   to separate out.
    out   separte

We know from our experience as humans
that our bodies create and get rid of two
types of waste SOLID WASTE and CELLULAR
WASTE (what we probably think of as liquid waste).

SOLID WASTE

- Comes from the Digestive System (**not** the excretory system)
- Solid Waste was **NEVER** absorbed into the blood stream (you could say it never really enters the internal environment of the body).
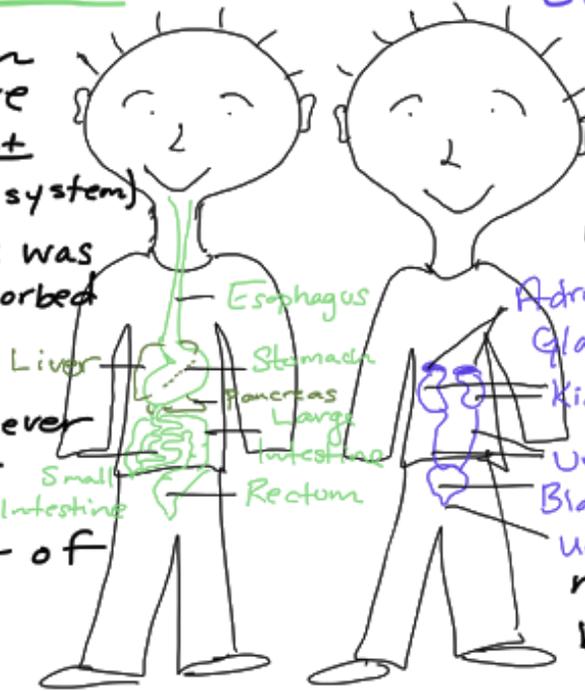
CELLULAR WASTE

- Comes from your blood.
- Cellular waste is formed from particles that have been absorbed into the blood stream but are not (or no longer) needed by the body.

Esophagus
Liver
Stomach
Pancreas
Large Intestine
Small Intestine
Rectum

Adrenal Gland
Kidneys
Ureter
Bladder
Urethra

Cellular Waste Excretion

There are actually 4 Organ Systems that take part in getting rid of cellular waste.

1) Respiratory System
   → we breath out CO_2

2) Skin System
   → we sweat out cellular waste

3) Digestive System
   → the liver breaks down proteins creating the waste product UREA, which is absorbed into the blood stream (this is actually creating waste not getting rid of it...)
   → the liver RECYCLES the hemoglobin from old Red Blood Cells into the bile that helps break down fats in the small intestine.
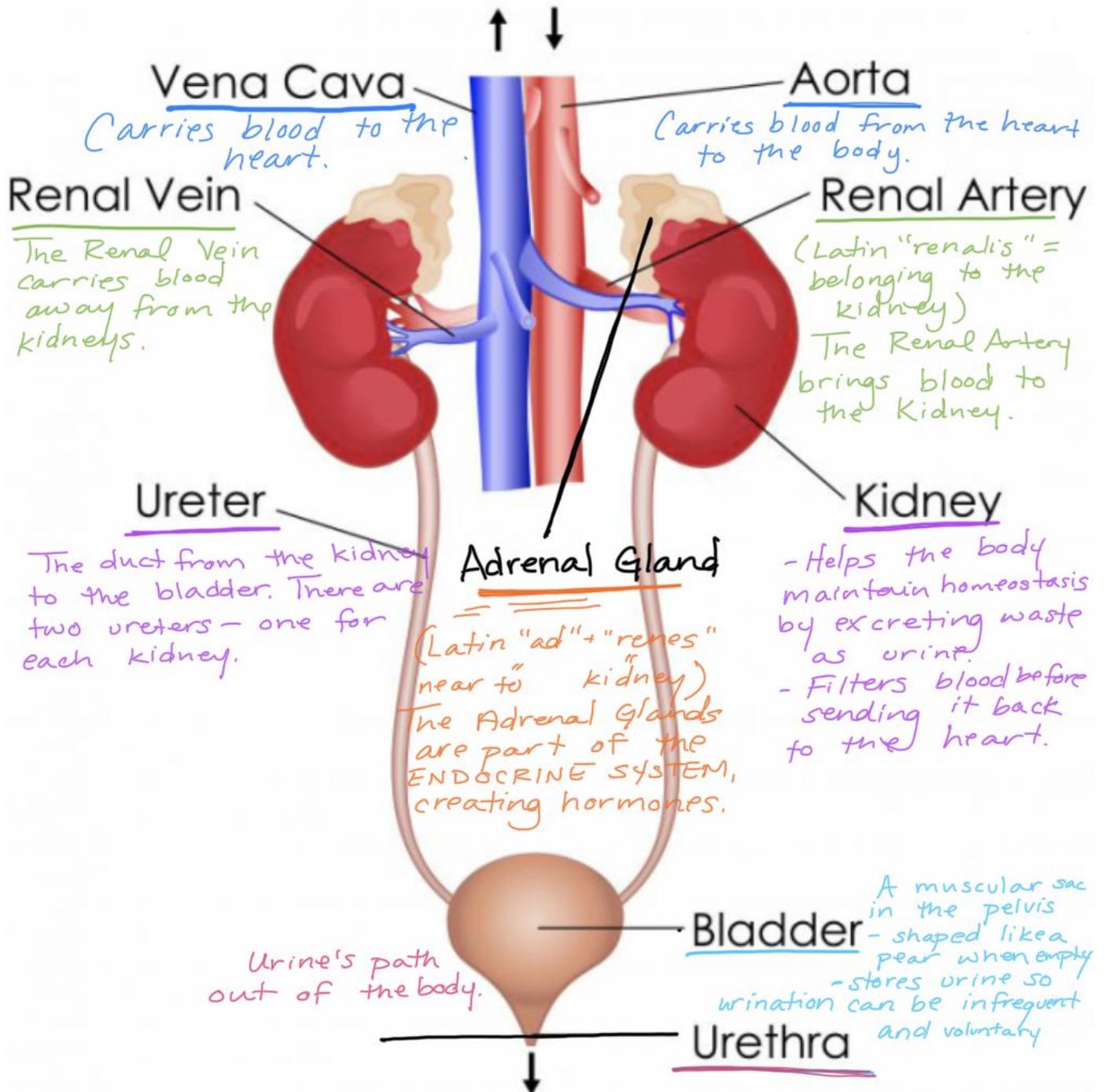
4) EXCRETORY SYSTEM

→ The <u>KIDNEYS</u> absorb the rest of the cellular waste (not gotten rid of by breathing, sweating, and the liver) and gets rid of the waste by urinating

→ By absorbing the rest of the waste, the <u>KIDNEYS</u> are <u>CLEANING</u> <u>THE</u> <u>BLOOD</u> so we don't send dirty blood to our heart, brain, or the rest of our body.

Wednesday, April 15

➔ Begin your lesson by reviewing your notes from yesterday.
➔ Spend time studying the Excretory Anatomy Image below.
  ◆ Read through the description of each anatomy part.
  ◆ On a separate sheet of paper this a proper heading, list and define all 9 anatomy parts.
➔ Read and take notes from *Teacher Notes* below on the *Path of Blood Through the Excretory System*.
➔ Quiz yourself on the Excretory Anatomy using the blank anatomy sheet found at the end of the packet.

EXCRETORY SYSTEM ANATOMY

Vena Cava
Carries blood to the heart.

Aorta
Carries blood from the heart to the body.

Renal Vein
The Renal Vein carries blood away from the kidneys.

Renal Artery
(Latin "renalis" = belonging to the kidney)
The Renal Artery brings blood to the Kidney.

Ureter
The duct from the kidney to the bladder. There are two ureters — one for each kidney.

Adrenal Gland
(Latin "ad" + "renes" near to kidney)
The Adrenal Glands are part of the ENDOCRINE SYSTEM, creating hormones.

Kidney
- Helps the body maintain homeostasis by excreting waste as urine.
- Filters blood before sending it back to the heart.

Bladder
A muscular sac in the pelvis - shaped like a pear when empty - stores urine so urination can be infrequent and voluntary

Urethra
Urine's path out of the body.

# THE PATH OF BLOOD THROUGH THE EXCRETORY SYSTEM

① Oxygenated blood arrived at the kidney from the heart. The kidney filters out all waste in the blood before sending it out to the rest of the body to provide oxygen.

② Blood, now deoxygenated, returns from the body to the heart. On its way some of the blood takes a detour through the kidneys where all the waste from traveling through the body is filtered out. Once filtered, the clean (aside from CO_2) blood continues back to the heart & lungs.

③ The waste that was filtered out by the kidneys now travels as URINE through the tubes called ureters.

＊Urine is mostly made up of water and urea, a chemical that is produced when proteins are broken down.

④ The bladder is lined with both smooth (involuntary) and skeletal (voluntary) muscle. This allows the bladder to store urine until you are able to use the bathroom. The urethra is cellular waste's final route OUT of the body.
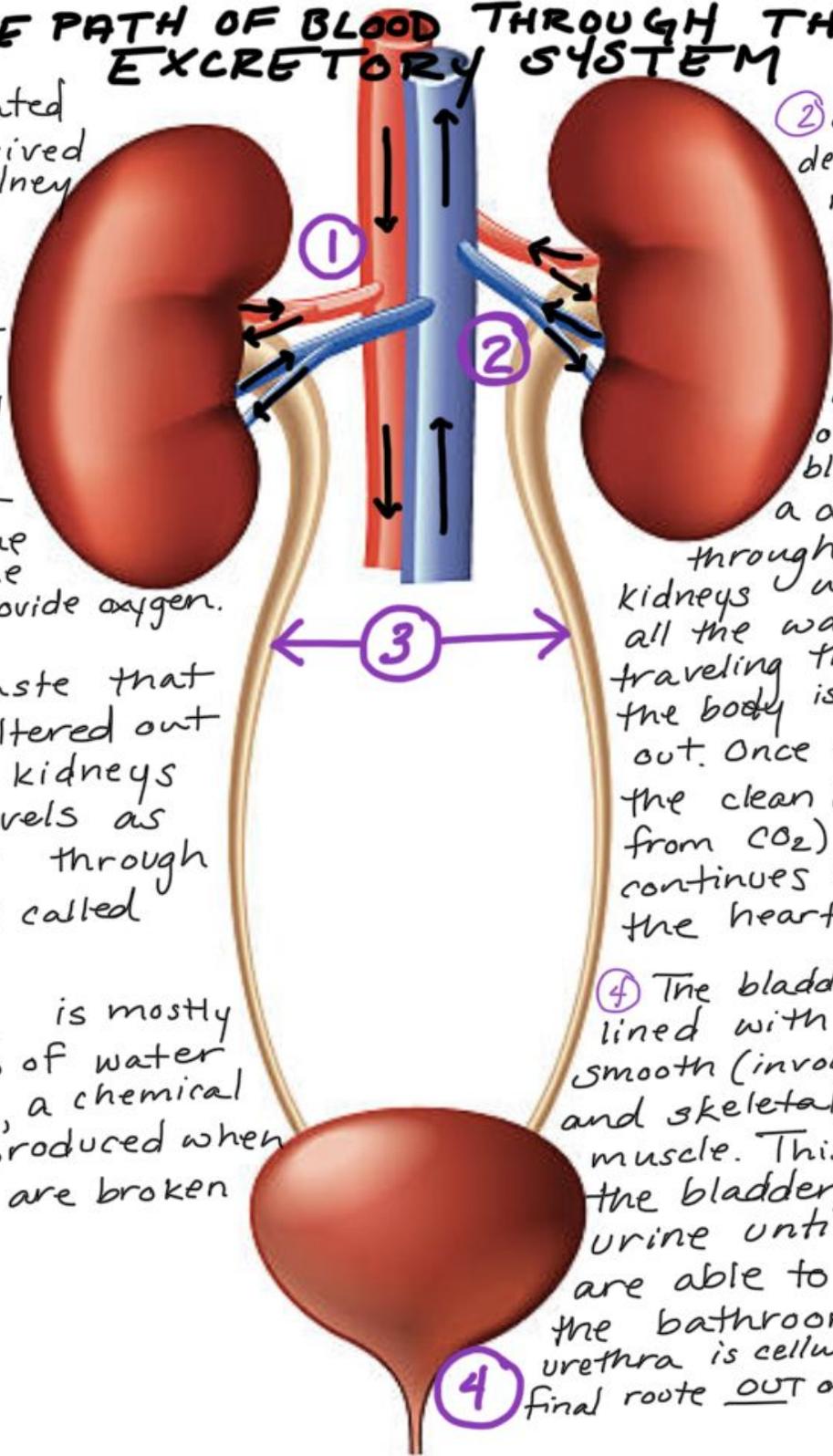
Thursday, April 16

➔ Begin your lesson by reviewing your notes from yesterday.

➔ Quiz yourself on the Excretory Anatomy using the blank anatomy sheet found at the end of the packet.

➔ Read and take notes from *Teacher Notes* below on the *Nephron Anatomy* and on the *Path of Blood & Waste Through the Nephron.*

➔ Quiz yourself on the Nephron Anatomy using the blank anatomy sheet found at the end of the packet.

TEACHER NOTES

THE FUNCTIONAL UNIT OF THE KIDNEY

For a moment, let's think back on other organs we know better.

The Lungs, in general, provide the body with oxygen and help the body get rid of Carbon dioxide.
Specifically, it is the ALVEOLI in the lungs that undergo gas exchange with capillaries to get O₂ in and CO₂ out.

The Small Intestine, in general, does most of the digestion and absorption of nutrients for the body.
Specifically, it is the VILLI in the small intestine that undergo diffusion with Capillaries to get nutrients into the blood stream.
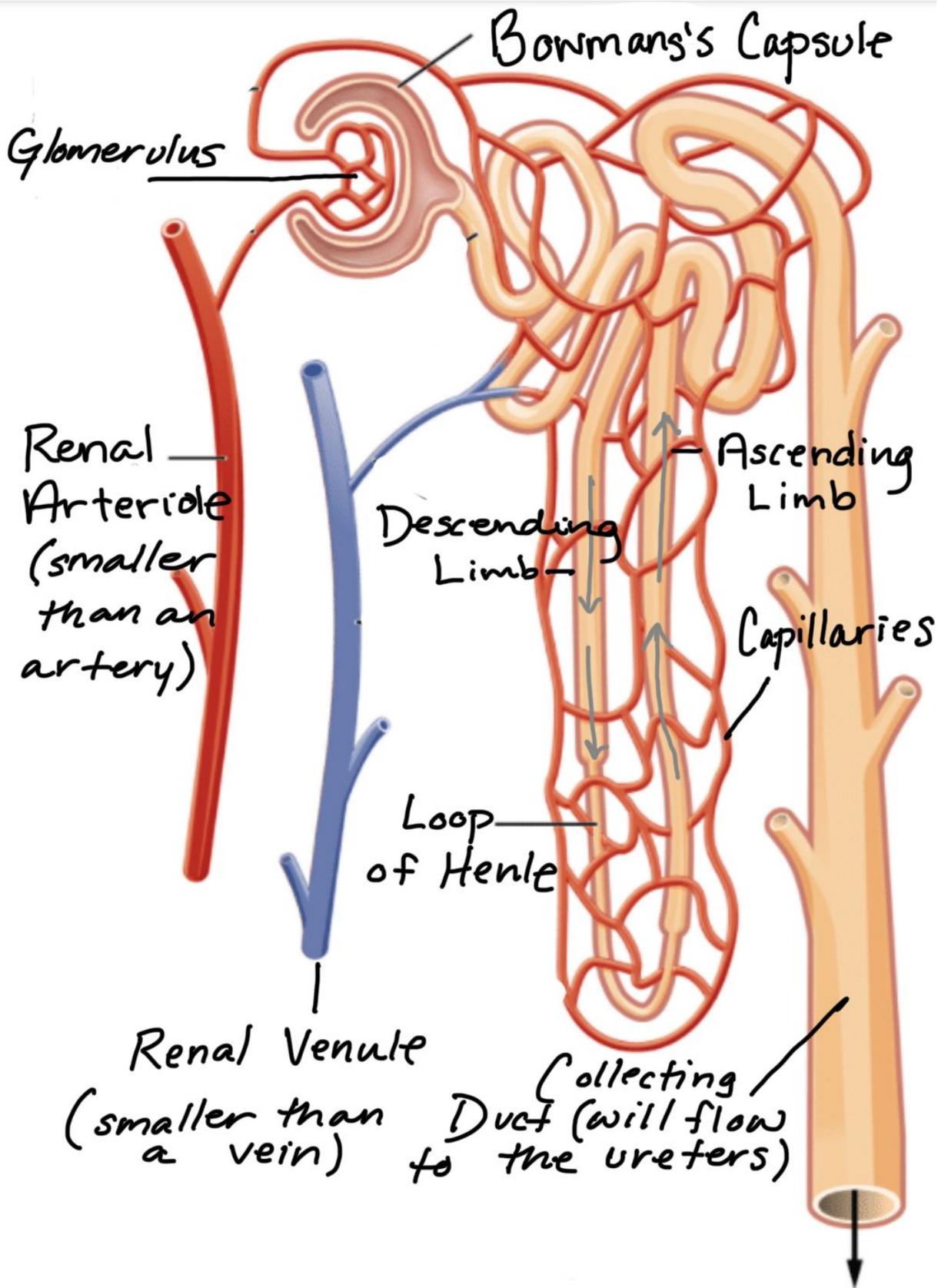
LIKEWISE...

THE KIDNEY, in general, is a filtration system for the blood to get rid of cellular waste, extra water, and extra nutrients.
Specifically, it is the NEPHRON in the kidney that undergo diffusion with Capillaries to get the waste OUT of the blood stream.

We say the functional unit of the lungs is the alveoli,
the functional unit of the small intestine is villi,
the functional unit of the KIDNEY is the NEPHRON.

So really, there's not that much new information to learn... except the nephron anatomy is quite complicated.

NEPHRON ANATOMY

Bowmans's Capsule

Glomerulus

Renal Arteriole (smaller than an artery)

Descending Limb

Ascending Limb

Capillaries

Loop of Henle

Renal Venule (smaller than a vein)

Collecting Duct (will flow to the ureters)

PATH OF BLOOD & WASTE THROUGH THE NEPHRON

① After blood enters the kidney it flows into smaller vessels that feed into the millions of nephrons found in the kidney ①

② Once inside the nephron, the blood flows to Bowman's Capsule. The "capsule" surrounds the Glomerulus which is a very crowded area filled with Capillaries. This is where most cellular waste (urea), excess nutrients, glucose, and water) are filtered out of the blood.
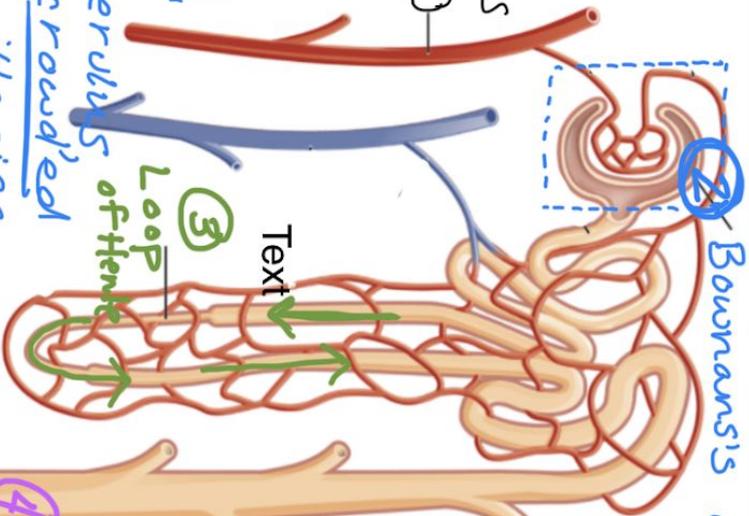
② Bowmans's Capsule

③ After almost everything is filtered out of the blood at Bowmans's Capsule, the waste travels through long, circuitous tubes (including the Loop of Henle)-still surrounded by capillaries. As the waste travels, some water, salt, and glucose are reabsorbed!

The blood, having now reabsorbed important nutrients exits the nephron and kidney to serve the body. The waste exits the body.

③ Loop of Henle

Text

Friday, April 17

➔ Begin your lesson by reviewing your notes from the whole week.

➔ Quiz yourself on the Excretory Anatomy and the Nephron using the blank anatomy sheets found at the end of the packet. When it comes to the nephron, try to explain what happens in each part of the nephron.

➔ Read the section of the book on the Excretory System (pages 445-450)

➔ Complete the 5 questions on page 450 on a new piece of paper with a full heading.

Thank you for another week of hard work!
We are proud of the time and effort you are putting in.
Enjoy your weekend!

BLANK EXCRETORY SYSTEM ANATOMY
(use this blank anatomy to quiz yourself on the excretory anatomy)
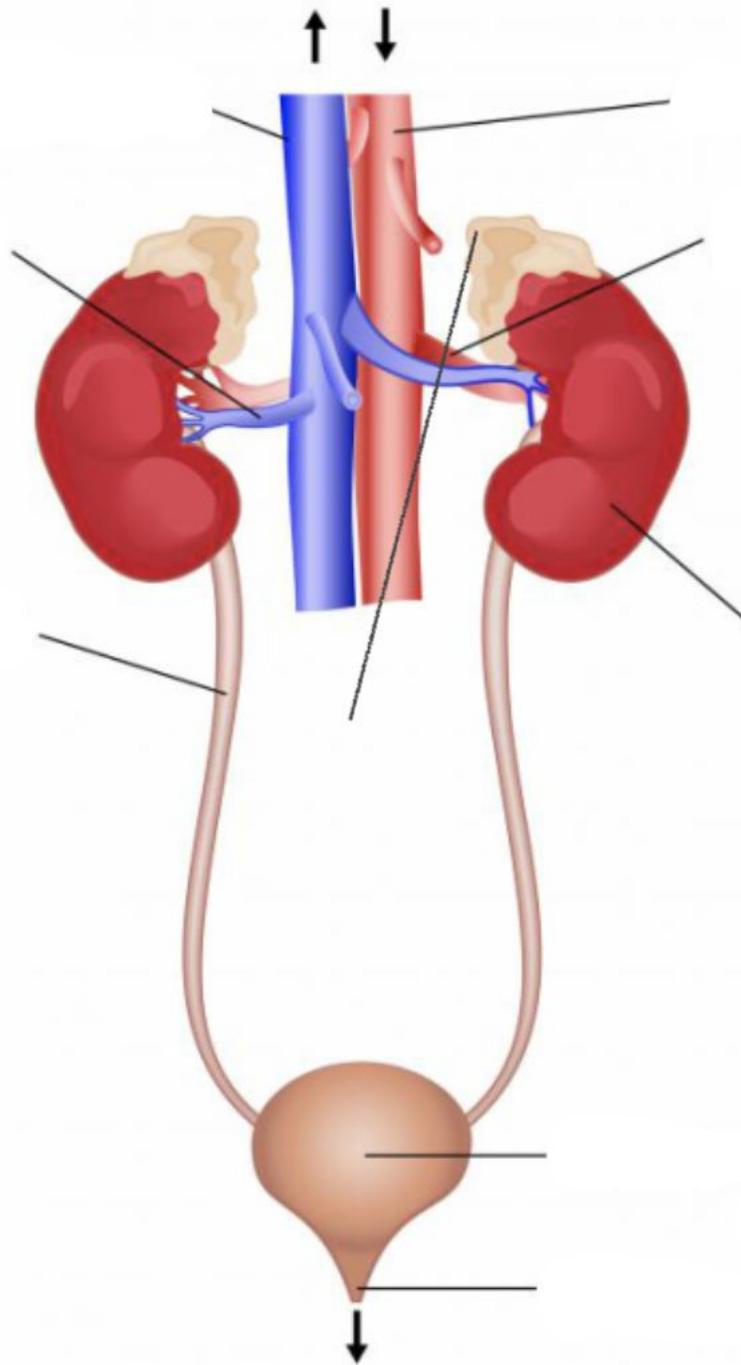
BLANK NEPHRON SYSTEM ANATOMY
(use this blank anatomy to quiz yourself on the nephron anatomy)