

## Remote Learning Packet

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

**March 30 - April 3, 2020**

**Course:** 6 Nature of Science

**Teacher(s):** Mr. Brandolini david.brandolini@greatheartsirving.org

Mr. Mooney sean.mooney@greatheartsirving.org

Mr. Schuler david.schuler@greatheartsirving.org

### **Weekly Plan:**

Monday, March 30

- Read pp. 3-4 in NoS textbook on the exterior senses, proper sensibles, and common sensibles
- Complete worksheet on Proper & Common Sensibles
- Read pp. 5-6 in NoS textbook on The Ten Categories of Being
- Complete worksheet on the Ten Categories of Being

Tuesday, March 31

- Read pp. 20-21 in NoS textbook on Natural Things & Artificial Things
- Complete worksheet on Natural & Artificial Things
- Complete worksheet on the Porphyrian Tree

Wednesday, April 1

- Review the Four Causes (NoS pp. 45-46) and The Soul. (76)
- Complete questions for both readings.

Thursday, April 2

- Read pp.82-4 in NoS textbook on the flower and its parts, and pollination, fruiting, and germination.
- Complete questions for both readings.

Friday, April 3

- Read the supplementary reading about fruit and answer questions.
- Dissect a fruit.

### **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

**Welcome to the Nature of Science lessons for this week!** Our aim is to review some key concepts for the first 3 days before deepening our understanding of the natural world on Thursday and Friday. Please be sure to **complete the header on each of the worksheets** and to **keep this packet** once it is completed.

**Key points:** The daily instructional points are listed under each day, and the **worksheets are at the end of the packet**. This week, there are limited instructional points, but be sure to pay close attention to these sections in any future packets. **We miss you!**

### **Monday, March 30**

Please complete the reading of pp. 3-4 of the *Nature of Science* textbook. Then, complete the Common & Proper Sensibles worksheet. Next, read pp. 5-6 of the *Nature of Science* textbook. Finally complete the Ten Categories of Being worksheet.

### **Tuesday, March 31**

First, read pp. 20-21 in the *Nature of Science* textbook on Natural Things & Artificial Things. Then, complete the worksheet on Natural & Artificial. Finally, complete the questions on the Porphyrian Tree.

### **Wednesday, April 1**

Carefully and thoroughly review the material on pages 45-46 and 76 of your *Nature of Science*, then complete the worksheet. As you review, try to consider ways in which these two topics may be related.

### **Thursday, April 2**

Read pages 82-83 of your *Nature of Science* textbook and complete the questions on the worksheet entitled “The Parts of a Flower and Pollination, Fruiting, and Germination.”

### **Friday, April 3**

Read the supplementary reading entitled “Classification of Fruits” (and look carefully at the pictures of fruit on page 84 of the *Nature of Science* textbook. Then, answer the questions on the worksheet entitled “Fruit.” You will be asked, in the fourth question of that worksheet, to dissect a fruit. The fruit you dissect could be anything you have around the house, or something that you are able to find outside. If the fruit is edible, take special care to be clean and sanitary as you dissect it so that you can (with your parents’ permission) eat it when you are done!

**Don't forget to complete the header! Be sure to answer in complete sentences wherever possible.**

Name: \_\_\_\_\_

Section & Course: \_\_\_\_\_

Teacher: \_\_\_\_\_

Date: \_\_\_\_\_

### Proper & Common Sensibles

All men by \_\_\_\_\_ desire to \_\_\_\_\_. An indication of this is the delight we take in our \_\_\_\_\_.

Scientific knowledge

1. A "sensible" is a special name for a property than can be sensed. What is a "proper sensible"?

\_\_\_\_\_  
\_\_\_\_\_

2. When we sense an object, what *exactly* are we sensing?

\_\_\_\_\_  
\_\_\_\_\_

3. (a) List the five kinds of proper sensibles. (b) Then, list three examples for each of the five. (15 examples total)

Proper Sensible	Example 1	Example 2	Example 3
Color	<u>Red</u> tomatoes	<u>Chatreuse</u> scarf	
Odor			
Sound	<u>High-pitched</u> squealing	<u>Harmonious</u> singing	

3. Which sense(s) has/have more than one quality proper to it? (Look at the list on p. 4)

\_\_\_\_\_

4. (a) Give an example of a particular property that can be sensed with two different senses. (b) State the two senses that sense this property.

Property	#1	#2

5. Next to each sense, list the proper sensible that is grasped by the specific sense. List at least three for touch.

Sense	Proper Sensible
Sight	
Smell	
Taste	
Hearing	
Touch	

6. Listed below are examples of two sensibles. Circle the example of the common sensible
- The wetness of water
  - The number of marbles in a jar

Briefly explain why the option you circled is common and not proper.

---



---



---

Name: \_\_\_\_\_  
Section & Course: \_\_\_\_\_  
Teacher: \_\_\_\_\_  
Date: \_\_\_\_\_

### The Ten Categories of Being

1. What are the two main groups into which all beings (or existing things) can be divided?


2. What is a substance?

---

---

3. What is an accident?

---

---

4. Why can't accidents exist without a substance?

- a. Accidents are not a kind of being
- b. Accidents are dependent on substances for existence
- c. Accidents are mistakes and so need a substance
- d. Accidents tell us what substance we are experiencing

5. Write one sentence for each category using the following image. Write the sentences based on the black dog on the right (not the dog on the left). Copy the questions relevant to each category and then answer them. The relevant questions can be found on p. 6 of the textbook.



Photo by Philip Wadsworth ([CC BY 2.0](https://creativecommons.org/licenses/by/2.0/))

Category	Sentence
1. Substance - "What is the thing?"	The thing on the right <u>is a dog</u> .
2.	
3.	
4.	
5.	
6.	
7.	
8. Place - "Where is the thing?"	The dog is <u>in the park</u> .
9.	
10.	

Name: \_\_\_\_\_  
Section & Course: \_\_\_\_\_  
Teacher: \_\_\_\_\_  
Date: \_\_\_\_\_

### Natural Things and Artificial Things

1. Of all the different things we sense, what types of things are relevant to us as scientists? Why?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. (a) According to the reading, which kind of thing is more familiar to us as humans: the natural or the artificial? (b) Why is this so?

(a) \_\_\_\_\_

(b) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. (a) What are all artificial things made out of? (b) Give two examples of artificial things which are made from these materials.

(a) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

(b) \_\_\_\_\_

\_\_\_\_\_

4. If man “cannot ultimately bring things into being,” cannot create out of nothing, then what is it that we *make* when we make things?

\_\_\_\_\_

\_\_\_\_\_

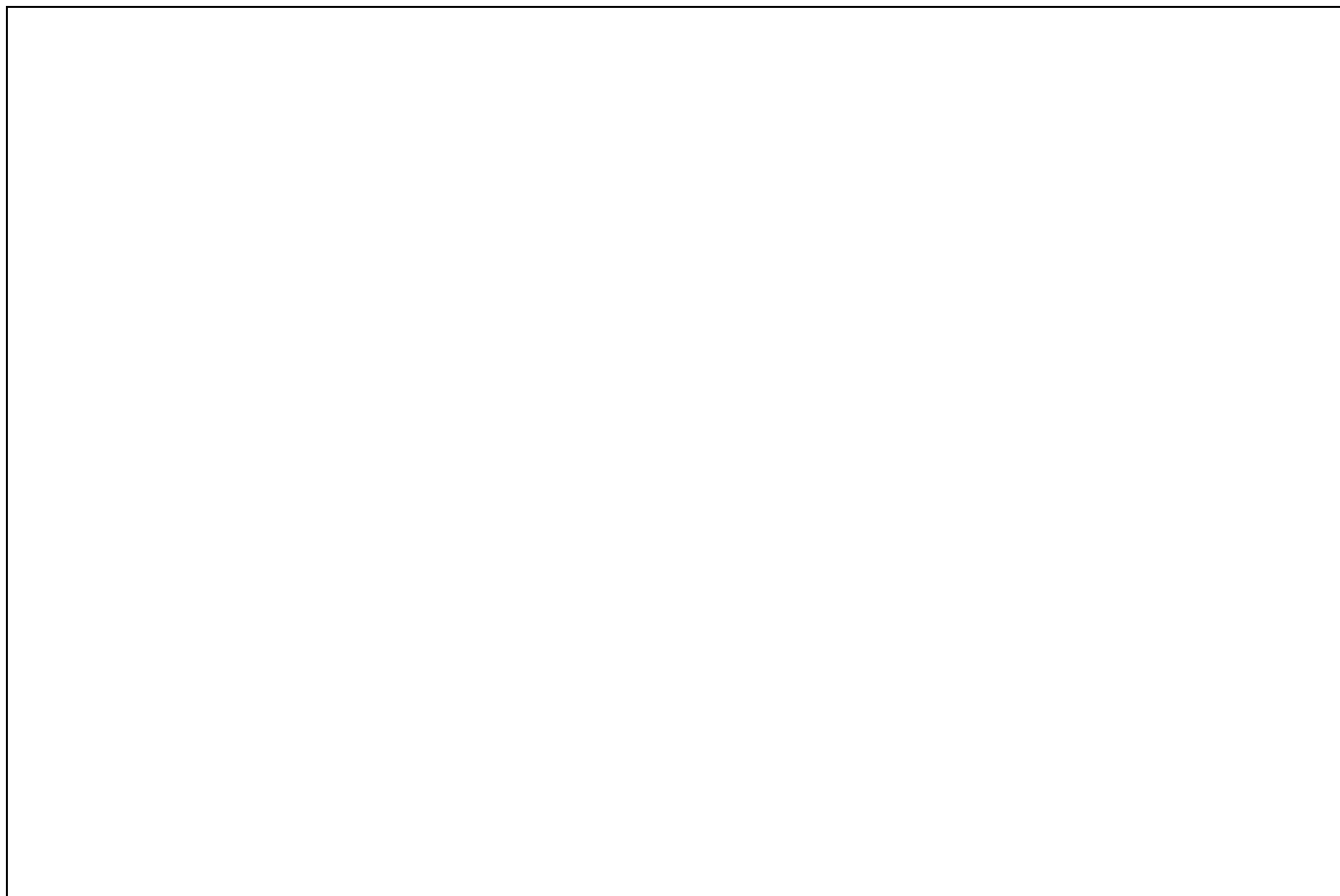
\_\_\_\_\_

\_\_\_\_\_

Name: \_\_\_\_\_  
Section & Course: \_\_\_\_\_  
Teacher: \_\_\_\_\_  
Date: \_\_\_\_\_

### The Porphyrian Tree

Draw the Porphyrian Tree from memory. Then, check and correct by using p. 22.



2. What is the key difference between plants and minerals?

---

---

3. The Porphyrian Tree organizes all substances according to their fundamental
- a. Taxonomy
  - b. Nature
  - c. Relationship to Humans
  - d. Intelligence
  - e. None of the above



4. Carefully read pp. 22-23. Then, write the definitions for the following things.

Example: Definition of Plant: A plant is an insensitive Living being. (Notice that this definition combines the specific difference *insensitive* with the closest genus *Living being/organism*.)

Definition of Mineral: \_\_\_\_\_

Definition of Beast: \_\_\_\_\_

Definition of Man: \_\_\_\_\_

Name: \_\_\_\_\_  
 Section & Course: \_\_\_\_\_  
 Teacher: \_\_\_\_\_  
 Date: \_\_\_\_\_

**Wednesday: Four Causes, pp. 45-46**

1. List each of the four causes, including the definitions and the question each cause answers from page 45.

Cause Name	Definition; Question it Answers

2. Review the example on page 46 for identifying the four causes of an object. Then, briefly observe a living thing and identify its four causes with as much precision and thoroughness as possible. Also, use the Greek alphabet for labeling each cause name this time!

Cause Name	Cause of _____

**Wednesday continued: Kinds of Souls and Their Powers, pg. 76**

1. (a) What are the three kinds of souls? (b) What are their powers?

<b>Kind of Soul</b>	<b>Powers</b>

2. Give your own example of one living thing that you have just observed for each kind of soul.

<b>Kind of Soul</b>	<b>Example of Living Being with that Kind of Soul</b>

3. According to the reading, how many kinds of soul does man have? Explain your answer in a complete sentence.

---

---

4. Copy the definition of the soul found at the end of the second paragraph.

---

---

5. *Reflection:* How do you suppose the definition from number 4 could help connect our biological understanding of the soul with the four causes? (Complete sentences)

---

---

---

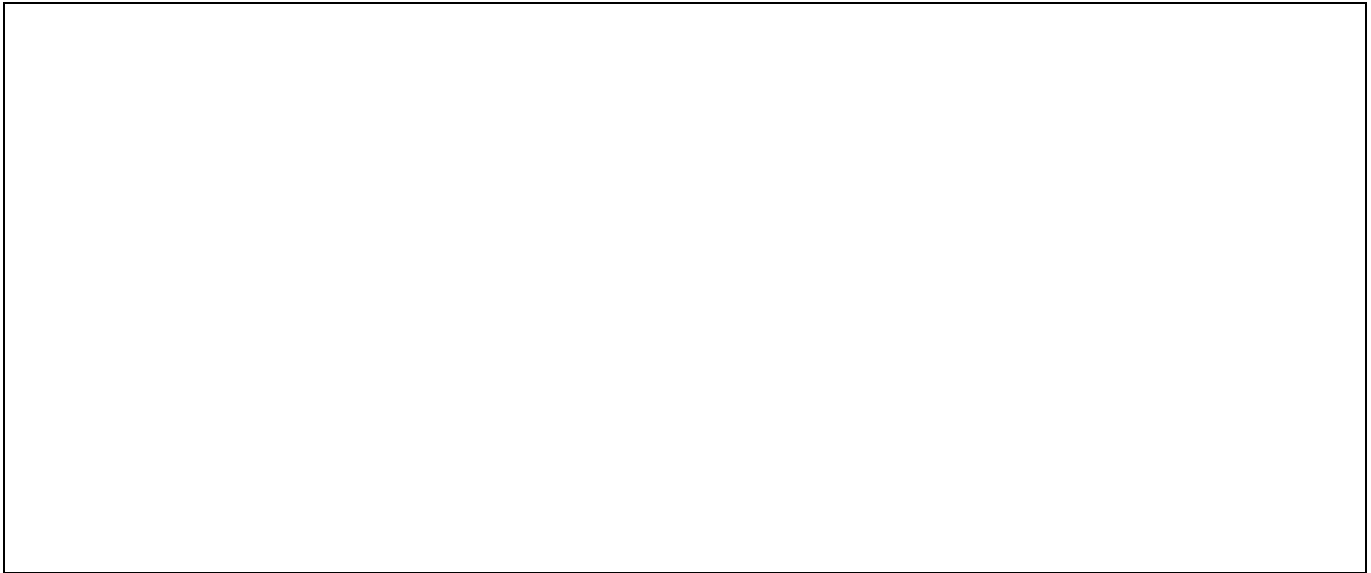
---

---

Name: \_\_\_\_\_  
Section & Course: \_\_\_\_\_  
Teacher: \_\_\_\_\_  
Date: \_\_\_\_\_

### The Parts of a Flower and Pollination, Fruiting, and Germination

- 1) Draw a flower (you may copy or trace the flower on p. 82) and label all of its parts, using all of the **bolded** words in the “Flower Parts and their Purposes”, on p.83.



- 2) Define in your own words, being sure to mention the final cause of each part.

a) Stamen: \_\_\_\_\_  
\_\_\_\_\_

b) Pistil: \_\_\_\_\_  
\_\_\_\_\_

- 3) What is the final cause of a flower?

\_\_\_\_\_  
\_\_\_\_\_

- 4) What is pollination?

\_\_\_\_\_  
\_\_\_\_\_

5) What is a seed?

---

---

6) How is a seed related to what we studied about animals in our embryology unit?

---

---

7) What is fruit?

---

---

8) Why do you think fleshy, tasty, and nutritious fruit would be helpful to the seed? (That is, what is the final cause of fruit?)

---

---

9) What is germination?

---

---

10) Connection to what we talked about in embryology: At what point does an apple tree start being the thing that it is?

---

---



3. Based on your own knowledge and experience from eating fruit, attempt to classify the following fruit and justify why you classified it as you did. Classify **three** of the fruit listed below:

Watermelon	Cherry	Pear	Cucumber	Kiwi	Grapefruit	Plum	Olive
------------	--------	------	----------	------	------------	------	-------

a) I think a \_\_\_\_\_ is a \_\_\_\_\_, because \_\_\_\_\_

\_\_\_\_\_

b) I think a \_\_\_\_\_ is a \_\_\_\_\_, because \_\_\_\_\_

\_\_\_\_\_

c) I think a \_\_\_\_\_ is a \_\_\_\_\_, because \_\_\_\_\_

\_\_\_\_\_

4. Dissect a fruit that you have at home. It could be any edible fruit your family might have in the kitchen, or something not edible that you find outside, such as an acorn.

a) Sketches:

Before Dissection	After dissection (i.e. cut open)

b) Describe where you found the seeds.

\_\_\_\_\_

\_\_\_\_\_

c) What kind of fruit do you think it is, and why?

\_\_\_\_\_

\_\_\_\_\_