

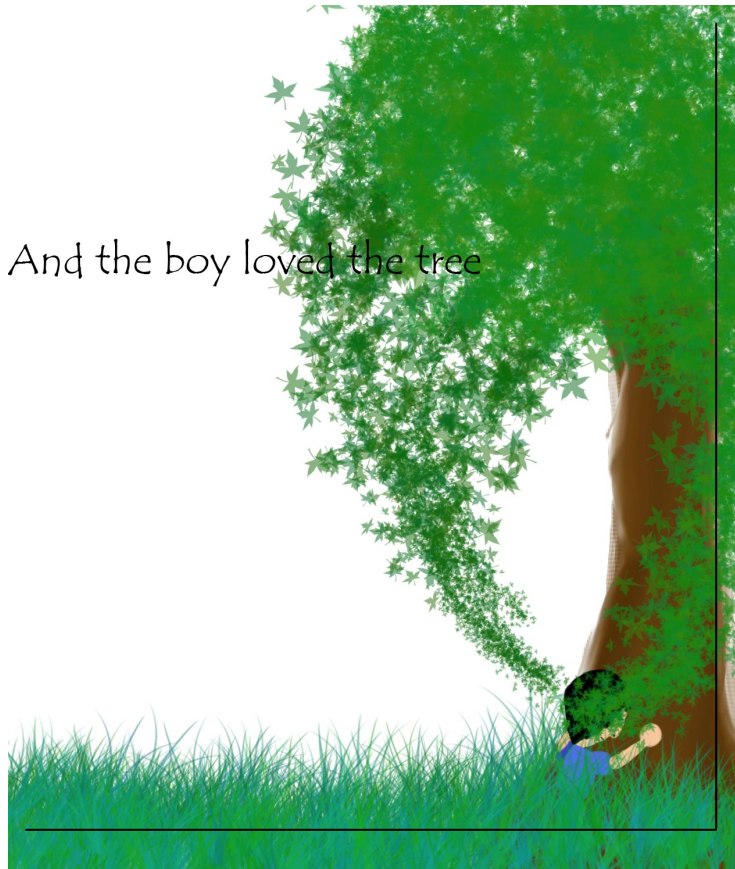
@ NEW SMYRNA BEACH HIGH SCHOOL

*Accept our connectedness to events. It is not unknown forces that cause our problems.  
We are the cause and the cure. We create our own reality and we can change it.*

# MEASUREMENT TOPIC 5

## *Plant Structure and Function*

And the boy loved the tree



2012-2013

**New Smyrna Beach High School**

Working together with parents, school personnel and community members, New Smyrna Beach High School students will graduate with the knowledge, skills and values to be positive contributors to society.



**TOPIC: Overview of Plants**

<b>Possible Test Questions or Topic</b>	<b>Notes:</b>
<b>SECTION 20.2</b>	
1. What are the habitat	
requirements for seedless	
vascular plants?	
2. What are the evolutionary	
advantages of a vascular	
system?	
3. What are the evolutionary	
advantages of seeds?	
<b>SECTION 20.3</b>	
4. What adaptations give flower-	
ing plants a reproductive	
advantage over gymnosperms?	
5. What are the primary differences	
between Monocots and Dicots?	
<b>SECTION 20.4</b>	
6. In what ways are plants an	
important part of our culture	
today?	
7. Why is a knowledge of plants	
important to pharmacology?	
8. Aside from food & medicine, in	
what ways are plants used in	
your life?	

# Plant Classification

## TWO MAJOR TYPES OF PLANTS

**NONVASCULAR:**  
1. \_\_\_\_\_  
\_\_\_\_\_

*Are referred to as...*

**BRYOPHYTES =**

3. \_\_\_\_\_

**Hornworts**

**Mosses**

*All live in...*

4. \_\_\_\_\_

*All non-vascular plants are small in size & grow close to the ground because...*

5. \_\_\_\_\_  
\_\_\_\_\_

**VASCULAR:**  
2. \_\_\_\_\_  
\_\_\_\_\_

*Some are referred to as...*

**TRACHEOPHYTES =**  
seedless vascular plants

*All vascular plants are tall & grow higher above ground because...*

3. \_\_\_\_\_

*Examples are...*

**Club mosses, Horsetails, & 6.**  
\_\_\_\_\_

*Which can be grouped according to...*

8. \_\_\_\_\_

*They also live in moist areas because...*

7. \_\_\_\_\_  
\_\_\_\_\_

9. \_\_\_\_\_

**Gymnosperms**

10. \_\_\_\_\_  
\_\_\_\_\_

12. \_\_\_\_\_  
\_\_\_\_\_

*Produce a reproductive structure called a...*

11. \_\_\_\_\_

13. \_\_\_\_\_



**TOPIC: Structure & Function of Plants —> ORGANS**

<b>Possible Test Questions or Topic</b>	<b>Notes:</b>
1. Describe the functions of the major plant organs listed at the right.	<b>A. ROOTS:</b>
	Type 1: Fibrous root
	Type 2: Taproot:
	<b>B. STEMS:</b>
	Type 1: Herbaceous stem:
	Type 2: Woody stem:
	<b>C. LEAVES:</b>
	Stomata & Guard Cells:
	<b>D. FLOWERS:</b>
	Stamen:
	Pistil:

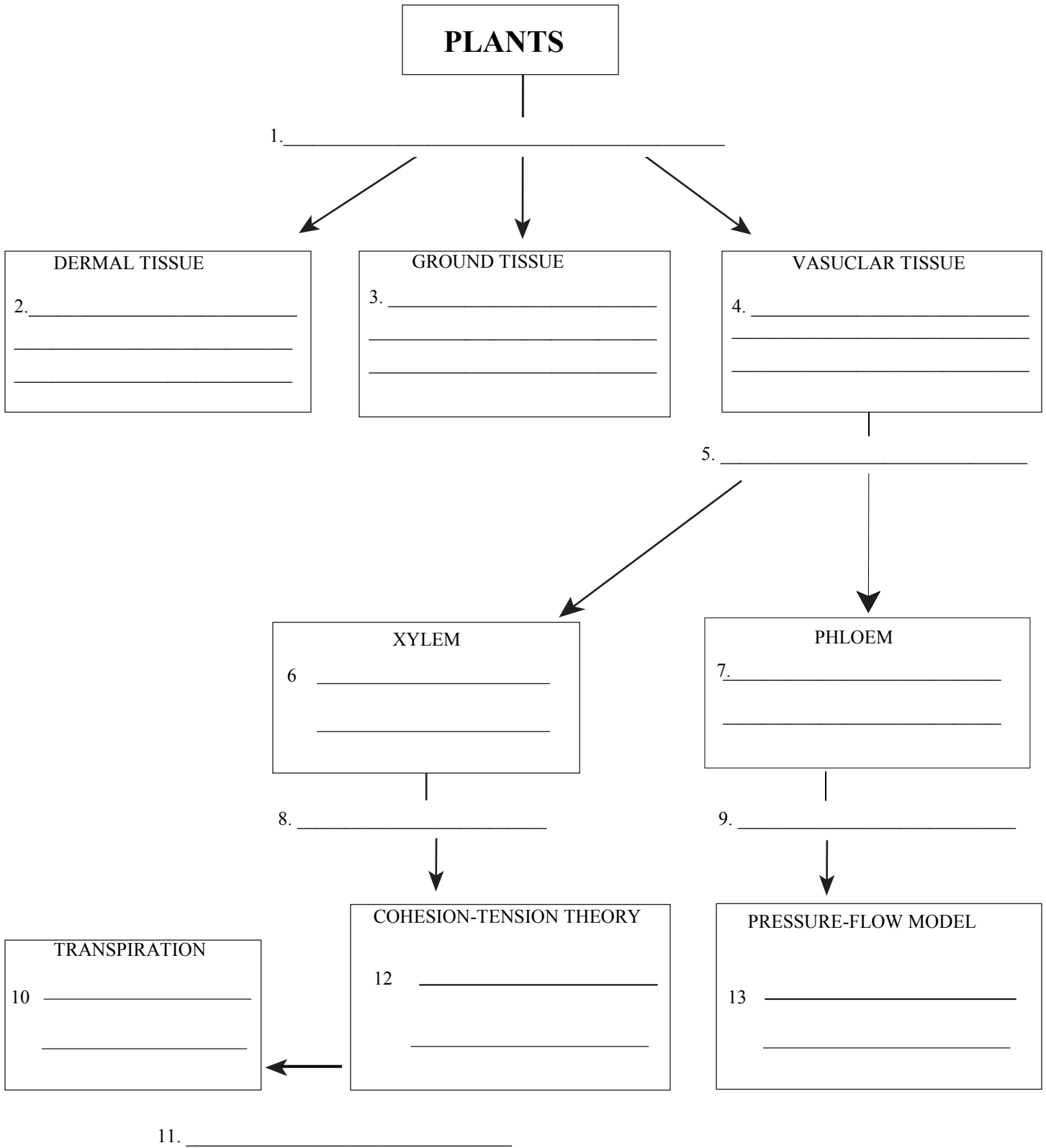


TOPIC: Structure & Function of Plants —> TISSUES

Possible Test Questions or Topic	Notes:
1. What is a 'tissue'?	•
2. List & describe & give the function of the THREE types of plant TISSUES.	<b>A.</b>
	• How is <b>dermal tissue</b> like our skin?
	<b>B.</b>
	• What parts of our body function like <b>ground tissue</b> ?
	<b>C.</b>
	Ex: Xylem =
	Ex: Phloem =
	• What part of our body functions similar to plant <b>vascular tissue</b> ?

# *Plants & Their Tissues*

Define the words in the boxes. On the line across each arrow, write a phrase that describes how the words in the boxes are related to **each other**.



# *Notes: Plant Processes*

**Explain how the following plant organs & tissues are directly related to the process of:**

## **1. PHOTOSYNTHESIS**

A) Leaves

B) Stomata

C) Guard Cells

D) Stem

E) Phloem

## **2. CELLULAR RESPIRATION**

A) Leaves

B) Stomata

C) Guard Cells

D) Stems

## *Notes: Plant Processes, cont.*

**Explain how the following plant organs & tissues are directly related to the process of:**

### **3. TRANSPIRATION**

A) Leaves

B) Stomata

C) Guard Cells

D) Xylem

E) Roots

### **4. REPRODUCTION**

A) Flowers

B) Stamen

C) Pistil

D) Fruits

E) Cones

F) Seeds