Keys study:

1-topshiriq:

Tajriba o‘tkazuvchi koleus o‘simligida turli xil yorug‘lik sharoitlarida sodir bo‘ladigan o‘zgarishlarni o‘rganib chiqdi. Tajriba uchun u bitta ona o‘simlik qalamchasidan o‘stirilgan uchta kichik koleus o‘simligini oldi. Birinchi o‘simlikni normal yorug‘likda o‘stirdi, ikkinchisini yorug‘lik manbaidan uzoqda, yorug‘lik kam bo‘lgan joyda, uchinchisini yorug‘lik kamerasiga joylashtirdi va kechayu kunduz yorug‘likda o‘stirdi. Tajriba davomiyligi 1,5-2 oy. Tajriba oxirida tajriba o‘tkazuvchi yetarli bo‘lmagan va ortiqcha yoritilgan sharoitda o‘stirilgan o‘simlik barg plastinkasining rangi bo‘yicha birinchi (nazorat) o‘simlikdan farq qilishini kuzatdi. Ikkinchi o‘simlik barglarining rangi to‘qroq, qizg‘ish tusga kirgan bo‘lsa, uchinchi o‘simlik barglarining rangi juda och tusga kirgan. Antotsian pigmenti yoritilganlik darajasi pasayganda faolroq ishlab chiqariladi (ikkinchi o‘simlik), antotsian pigmenti yorug‘lik ta’sirida parchalanadi (uchinchi o‘simlik).

Barg plastinkalarining rangidan tashqari ikkinchi o‘simlik nazoratga nisbatan nimasi bilan farq qiladi? (varaq plastinkalarining o‘lchamlarini, tugunlar orasidagi uzunliklarni taqqoslang). O‘tkazilgan tajribada qanday o‘zgaruvchanlik turi kuzatiladi? Aynan shu turdagi o‘zgaruvchanlik nima sababdan kuzatilishini tushuntiring.

2-topshiriq.

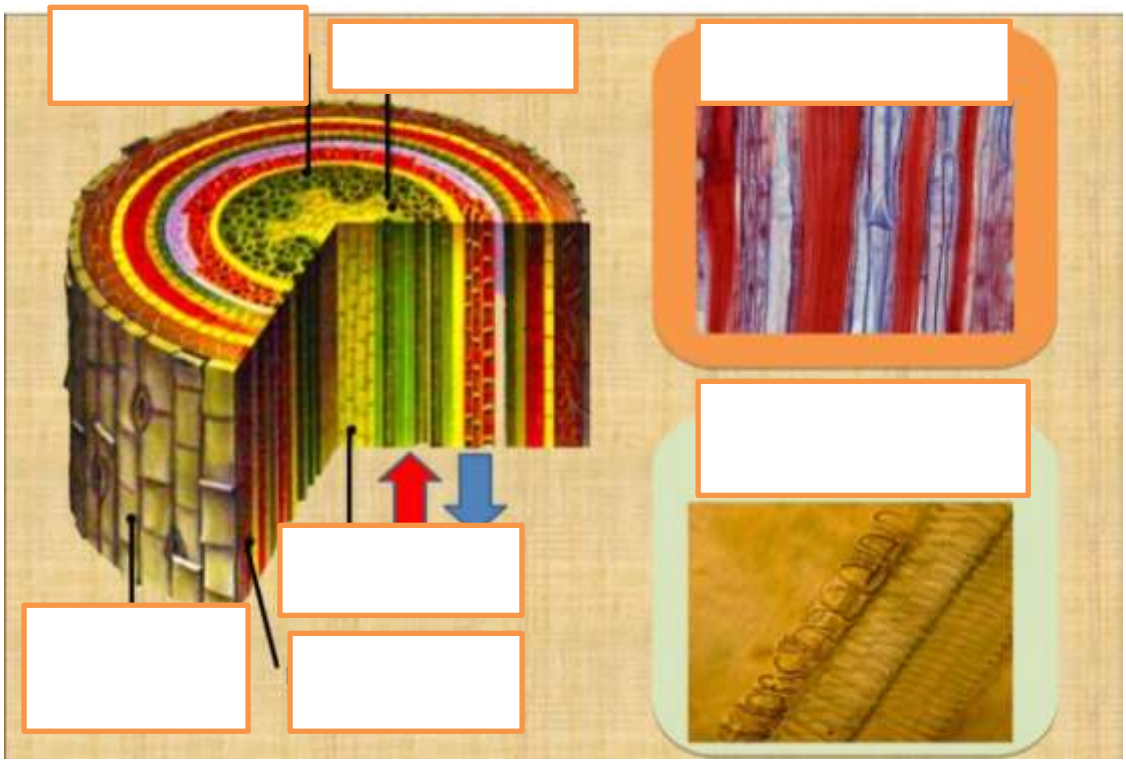
Tajriba davomida tajriba o‘tkazuvchi novdaning qaysi qismidan suv va unda erigan moddalar o‘tishini aniqladi. U loviyani tuproq sathidan biroz yuqoriroq kesgan, har bir novdaning uchini suv ostida 1-2 sm kesib, o‘simliklarni kesish paytida havo kirgan idishlarni olib tashlagan. Ikkita novdani bo‘yalgan suvli bankaga, bittasini toza suvli bankaga qo‘ydim (bu novda tajriba oxirida taqqoslash uchun kerak). Bankalarni paxta tiqinlari bilan berkitib, yoniga iliqqina joyga qo‘ydi. Bir necha kundan keyin novdalarni ko‘ndalang va bo‘ylama qilib kesdi.

Organik moddalar poyaning qaysi o‘tkazuvchi sistemasi bo‘ylab harakatlanadi? Bu tuzilmalar qanday hujayralardan (tirik yoki o‘lik) tashkil topgan?

Suv va unda erigan anorganik moddalar poyaning o‘tkazuvchi sistemasida qanday strukturalar bo‘ylab harakatlanadi?

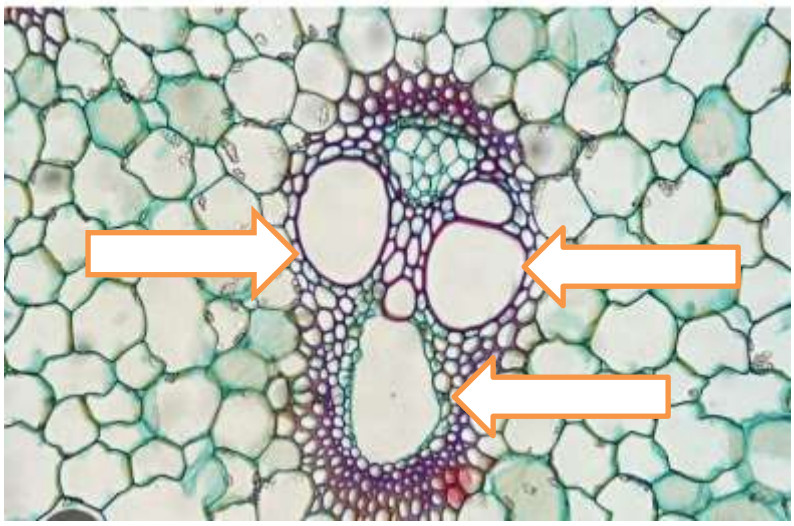
3-topshiriq:

Complete the free place.



4-topshiriq.

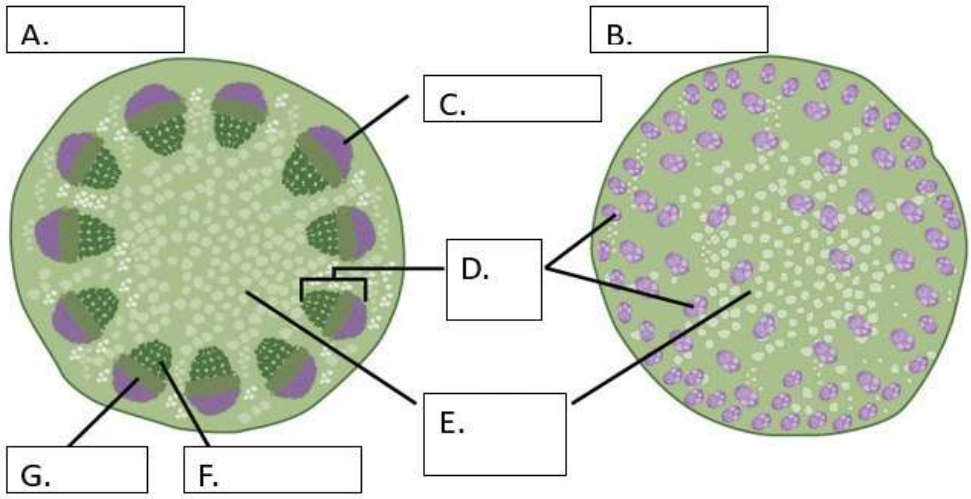
Ushbu rasmda ko`ndalang kesmasi berilgan o`simlikka xos bo`lgan 5 ta ta`rif ayting. Ko`rsatilgan to`qima turi va xili tushuntirib bering.



5.Topshiriq.

Complete tasks.

) Match the words in the table below with the appropriate letter label from the diagram.



Xylem		Monocot	
Phloem		Eudicot	
Sclernchyma		Vascular bundle	
Ground tissue			

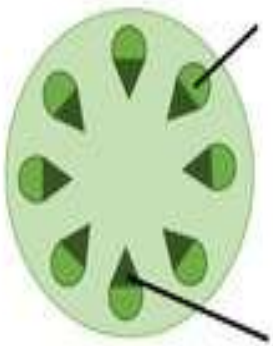
What does the **phloem** transport?

Where is this **produced**?

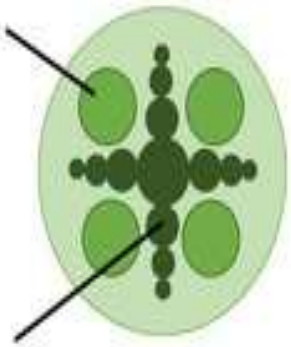
Which **direction** does it travel?

Explain how the phloem is adapted to make it a **continuous system.**

Transport Tissues in the **Stem**



Transport Tissues in the **Roots**



What does the **xylem** transport?

Where does this come from? Which direction does it travel?

What is **special** about the cells in the xylem?

Explain how the xylem is adapted to make it a **continuous system.**

How is the xylem **different** to the phloem?

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