

WORM DISSECTION

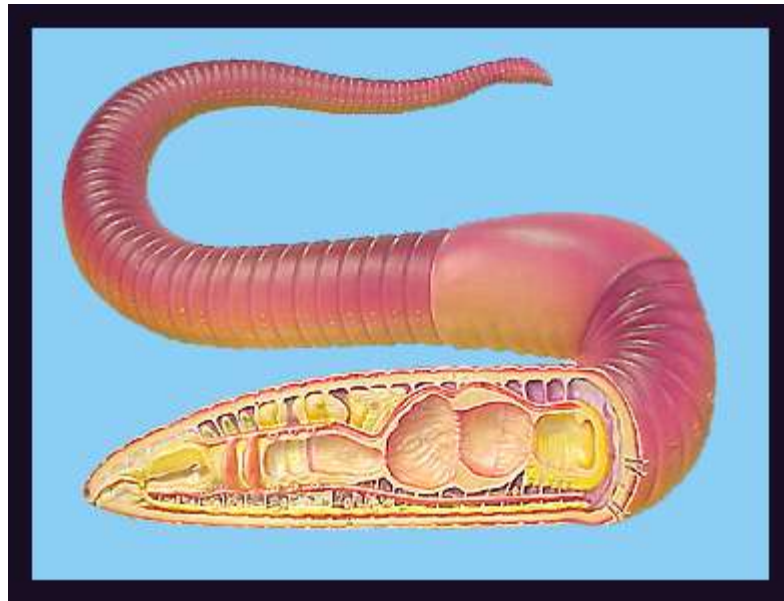
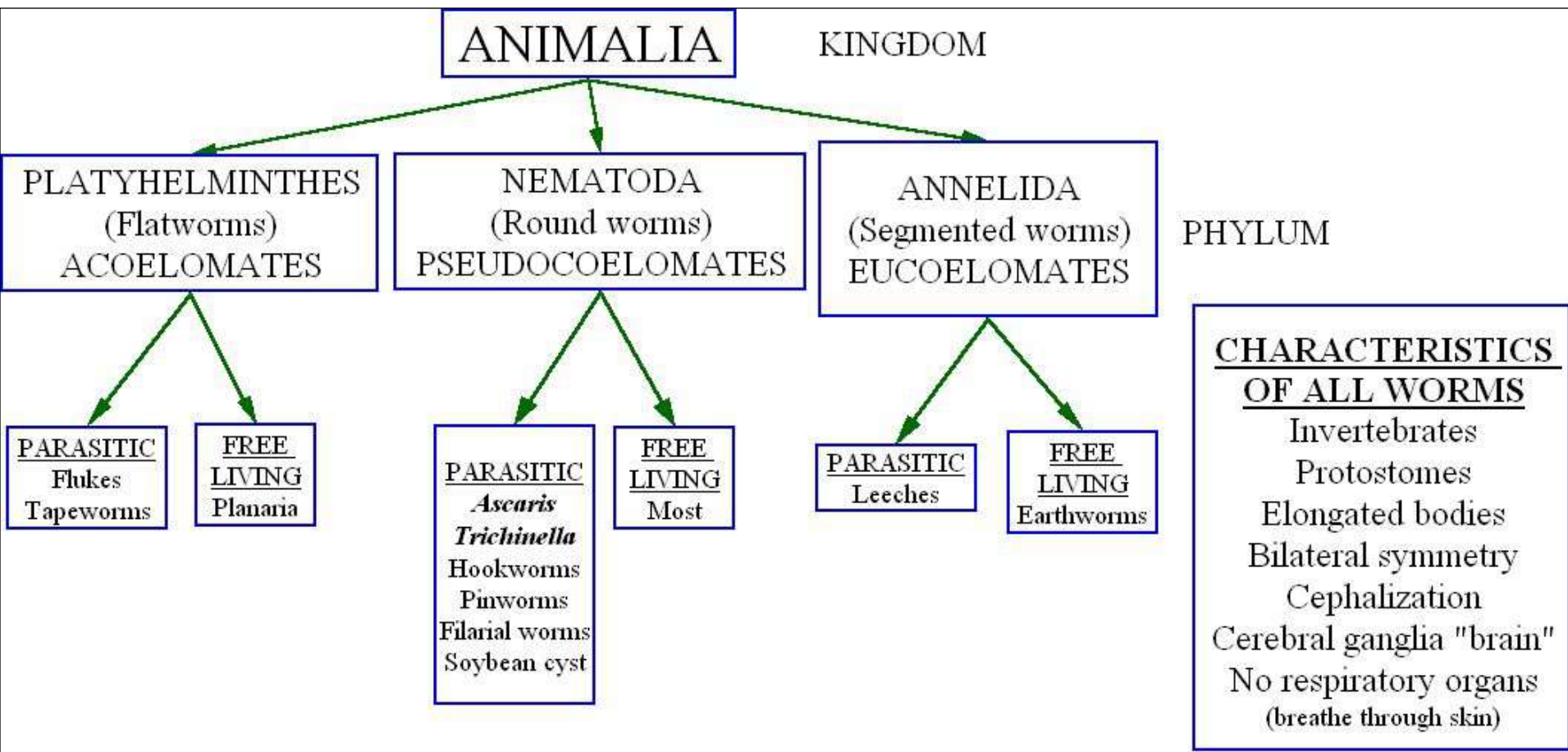


Image from:

http://bioweb.uwlax.edu/zoolab/Table_of_Contents/Lab-6b/Earthworm_Model_1/earthworm_model_1.htm



Kidspiration by: Riedell

NAMING

Kingdom: ANIMALIA

Phylum: Annelida
“little rings”

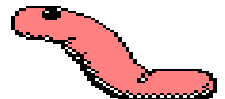
Class: OLIGOCHAETA
“few bristles”

SETA (pl: SETAE)



Provide traction

Image from: <http://www.ci.wixom.mi.us/LocalGov/Recreation/Clip%20Art,%20photos/Bird%20pulling%20worm.jpg>



Animation from: <http://www.animationlibrary.com>

Advantage of Segmentation

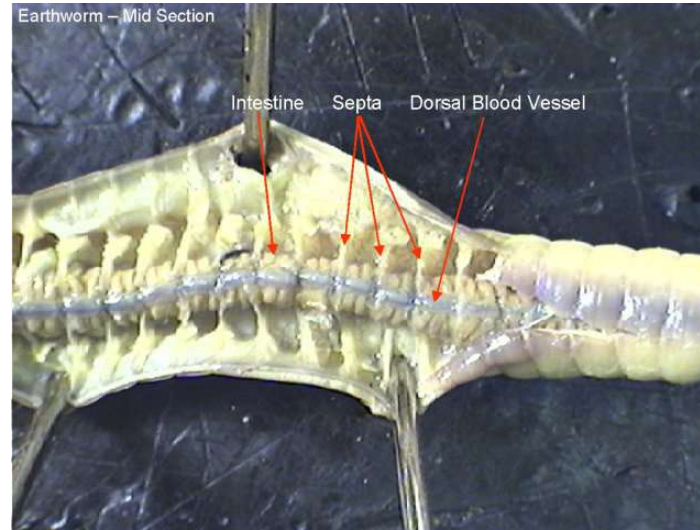


Image from:

<http://faculty.clintoncc.suny.edu/faculty/Michael.Gregory/files/Bio%20102/Bio%20102%20Laboratory/Protostomes/protostomes.htm>

- 1. Compartments allow individual parts to move independently**
- 2. Damage insurance:**
If one section is damaged, others can still function

WHICH END IS WHICH?



CLITELLUM

MOUTH (Prostomium)

ANUS

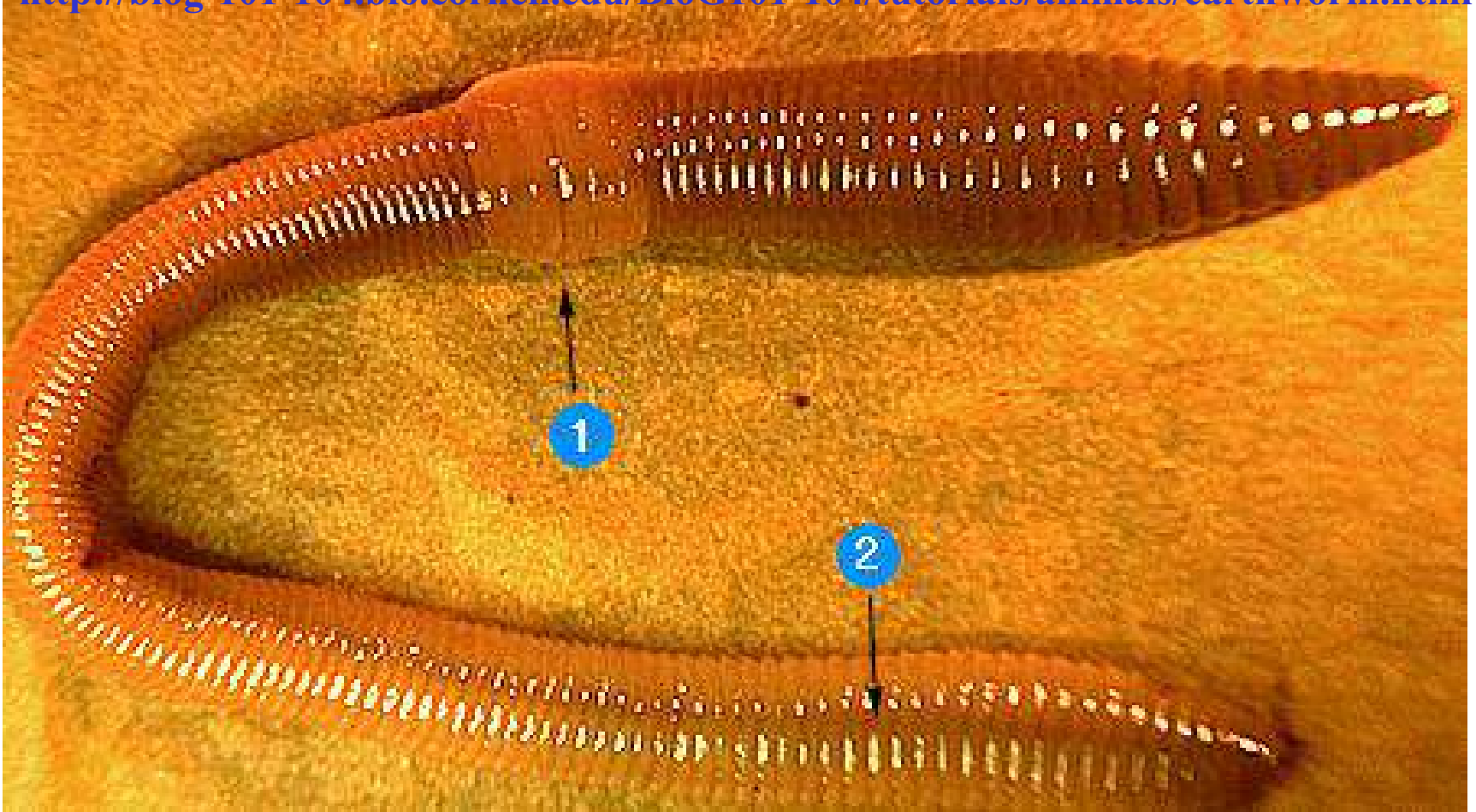
EXTERNAL STRUCTURES



BIODIDAC © J. Houseman, Univ. d'Ottawa

EXTERNAL STRUCTURES

<http://biog-101-104.bio.cornell.edu/BioG101-104/tutorials/animals/earthworm.html>

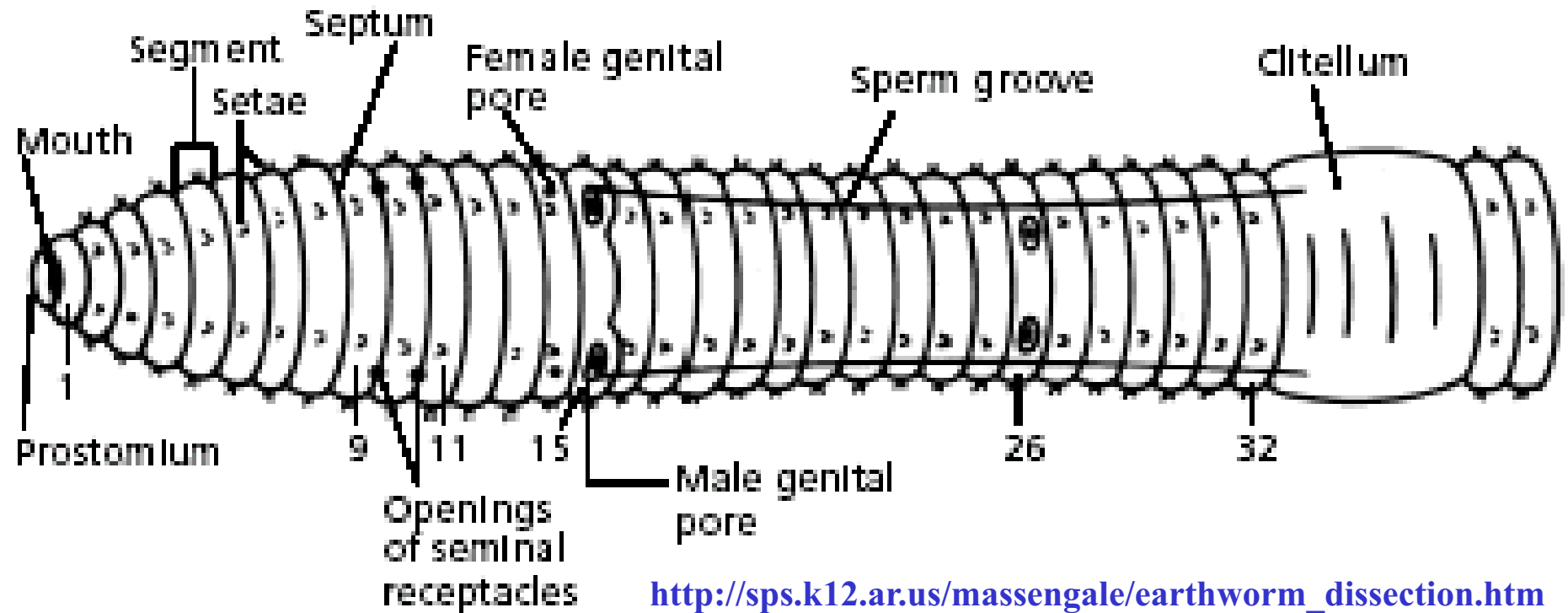


DORSAL BLOOD VESSEL

CUTICLE

CAMOUFLAGE

EXTERNAL STRUCTURES



HERMAPHRODITE

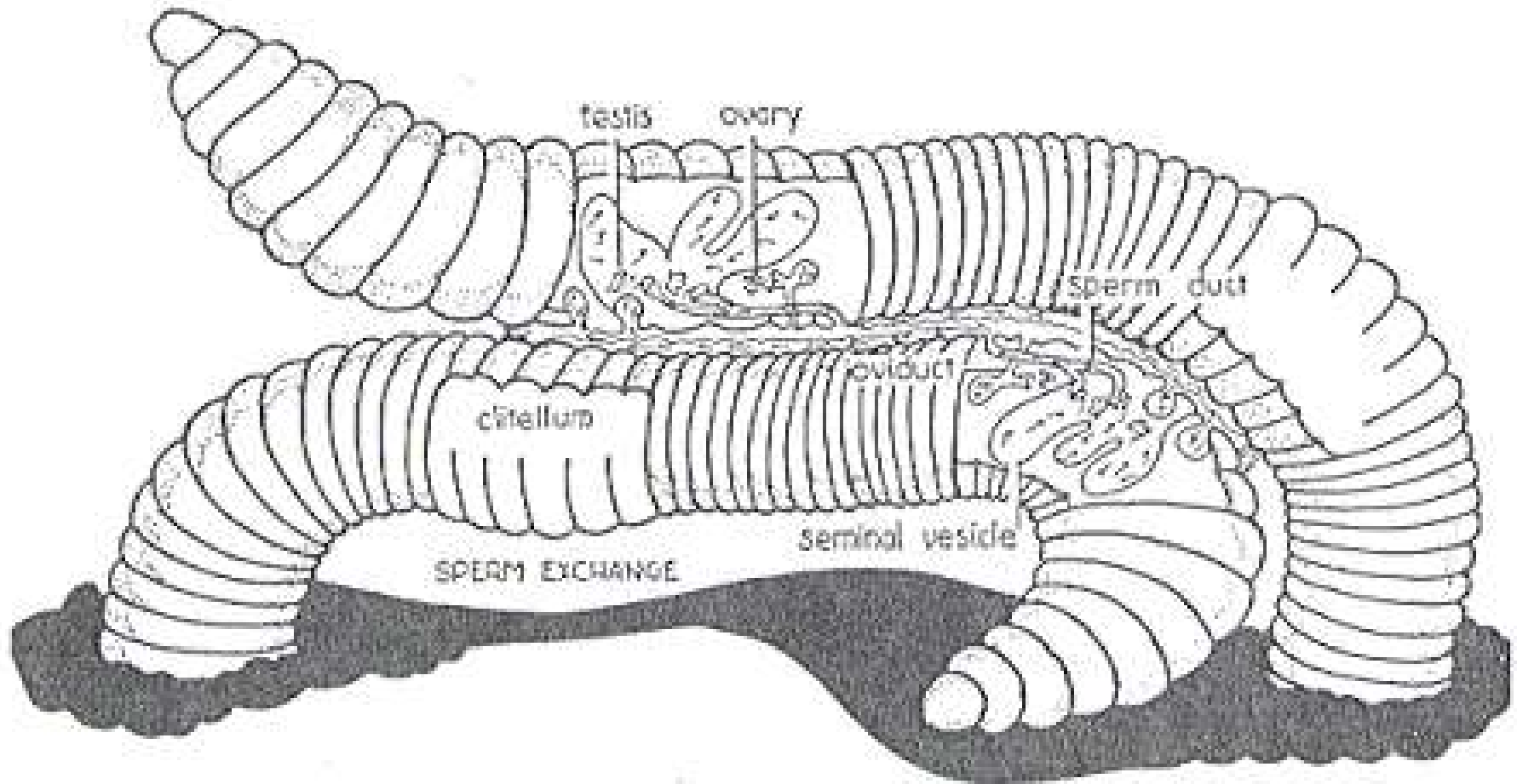
have both male and female sex organs

EXTERNAL STRUCTURES



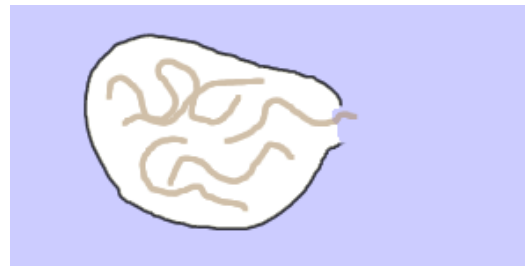
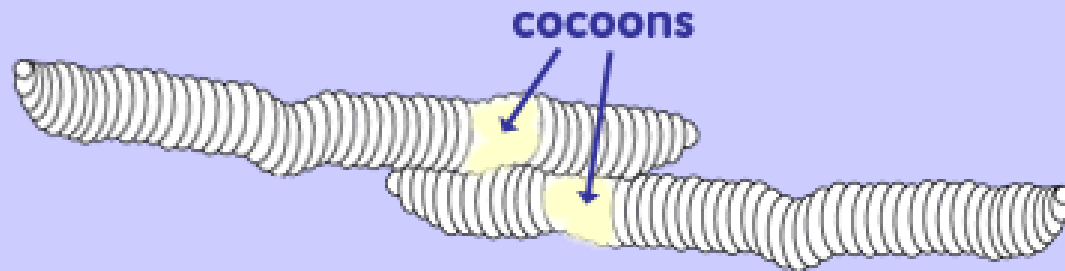
Image from: <http://www.bio200.buffalo.edu/labs/tutor/earthworm>

SEXUAL REPRODUCTION



SEXUAL REPRODUCTION





Images from:

<http://www.urbanext.uiuc.edu/worms/anatomy/anatomy5.html>

Earthworms can lay between up to 80 cocoons per year with 1-2 worms in each



Image from: <http://www.gardenersmarketplace.com/products.php3?Sid=57>

LOOK INSIDE

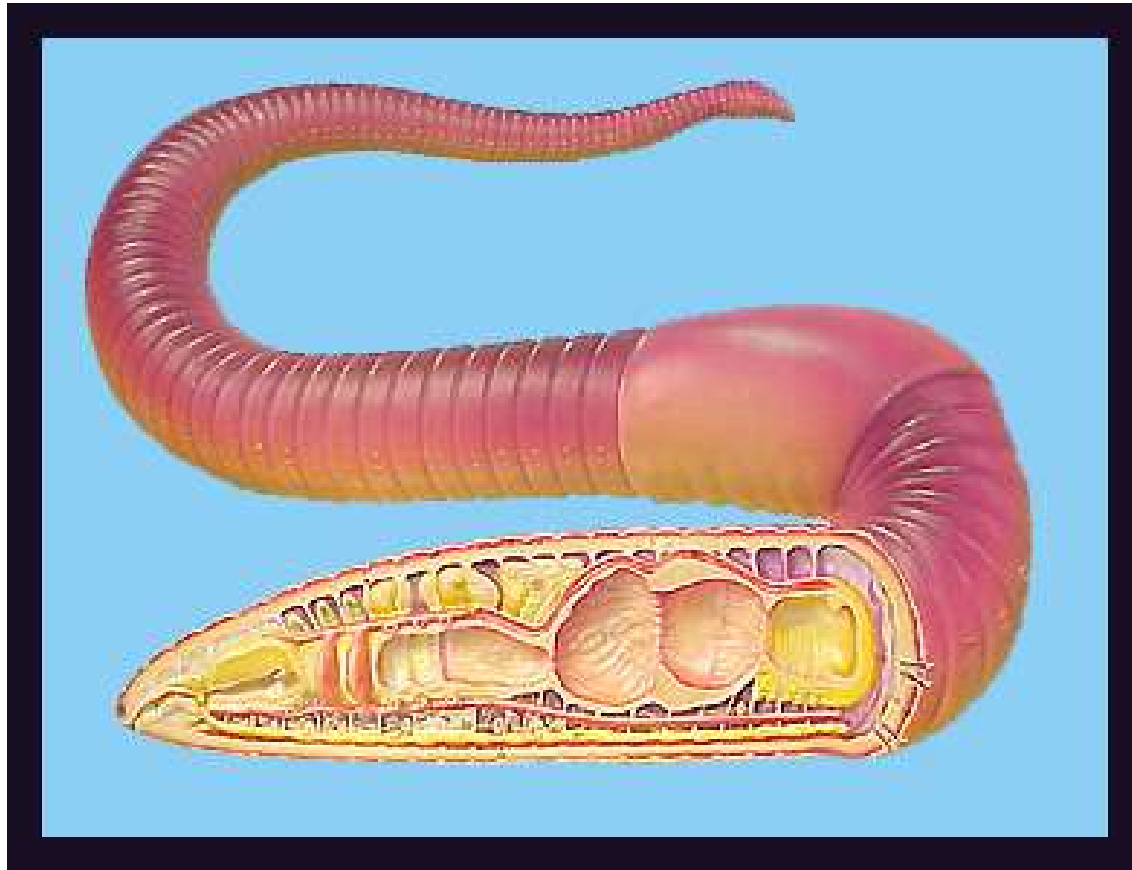


Image from: http://bioweb.uwlax.edu/zoolab/Table_of_Contents/Lab-6b/Earthworm_Model_1/earthworm_model_1.htm

SEPTUM (*pl.* SEPTA)

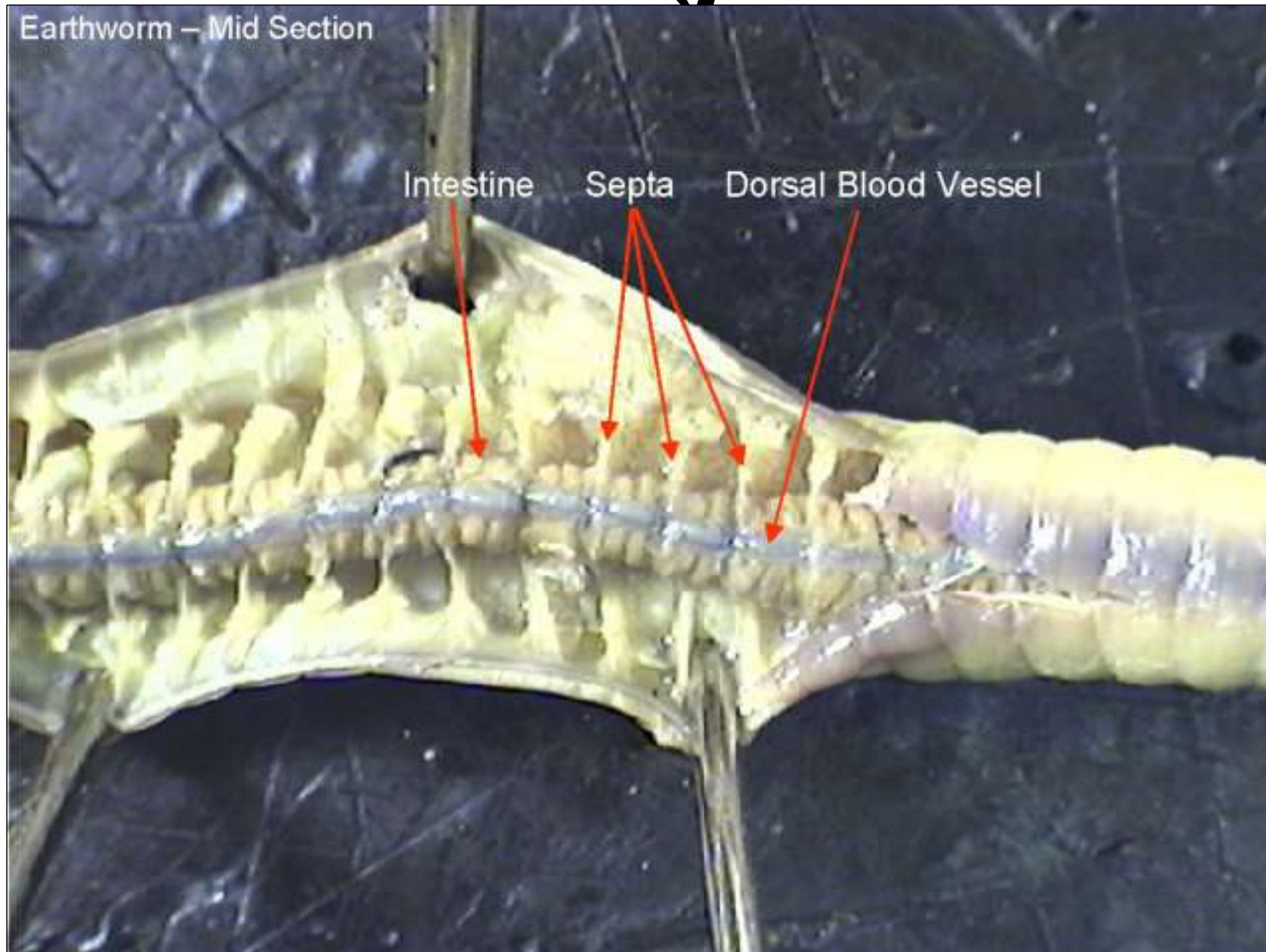
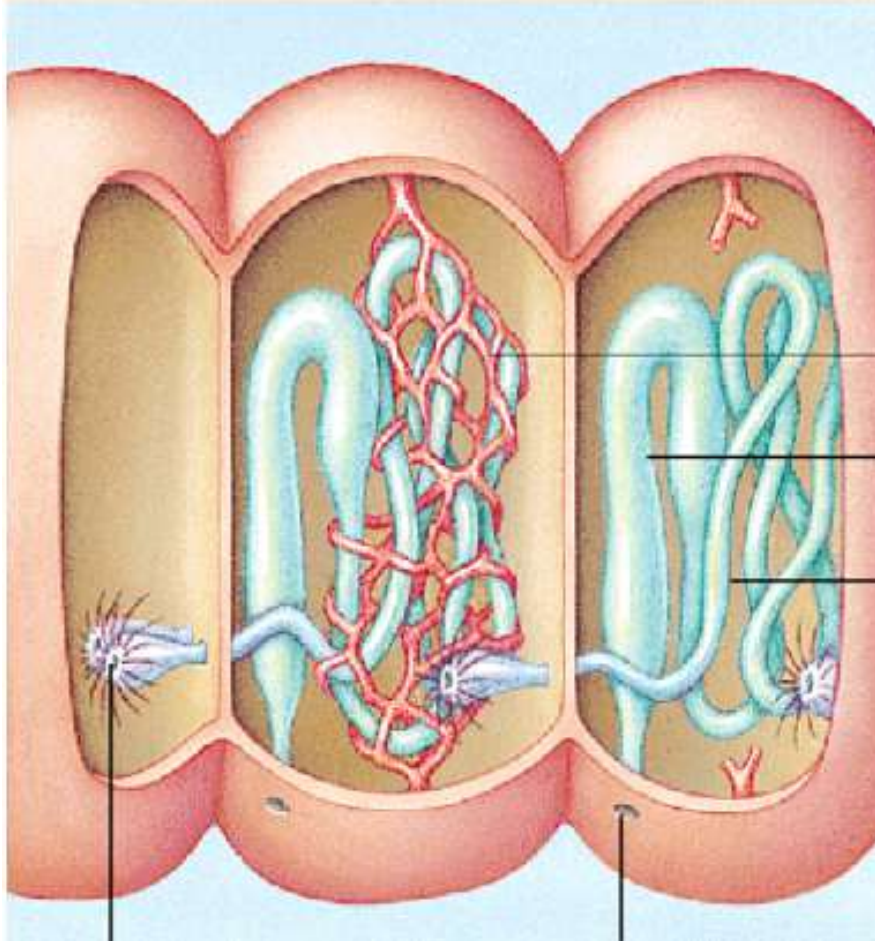


Image from:

<http://faculty.clintoncc.suny.edu/faculty/Michael.Gregory/files/Bio%20102/Bio%20102%20Laboratory/Protostomes/protostomes.htm>

INTERNAL STRUCTURES



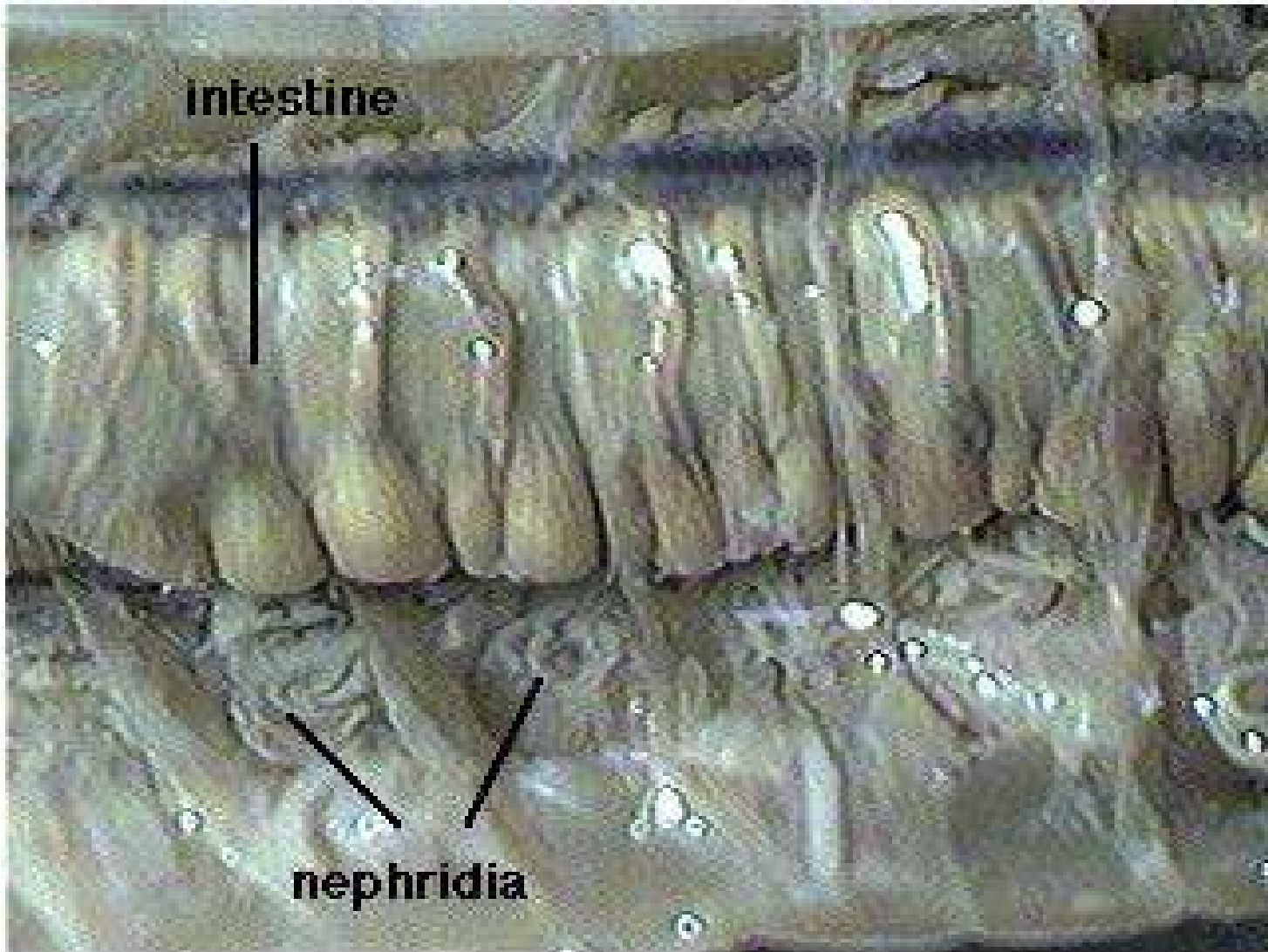
NEPHRIDIUM

pl. **NEPHRIDIA**

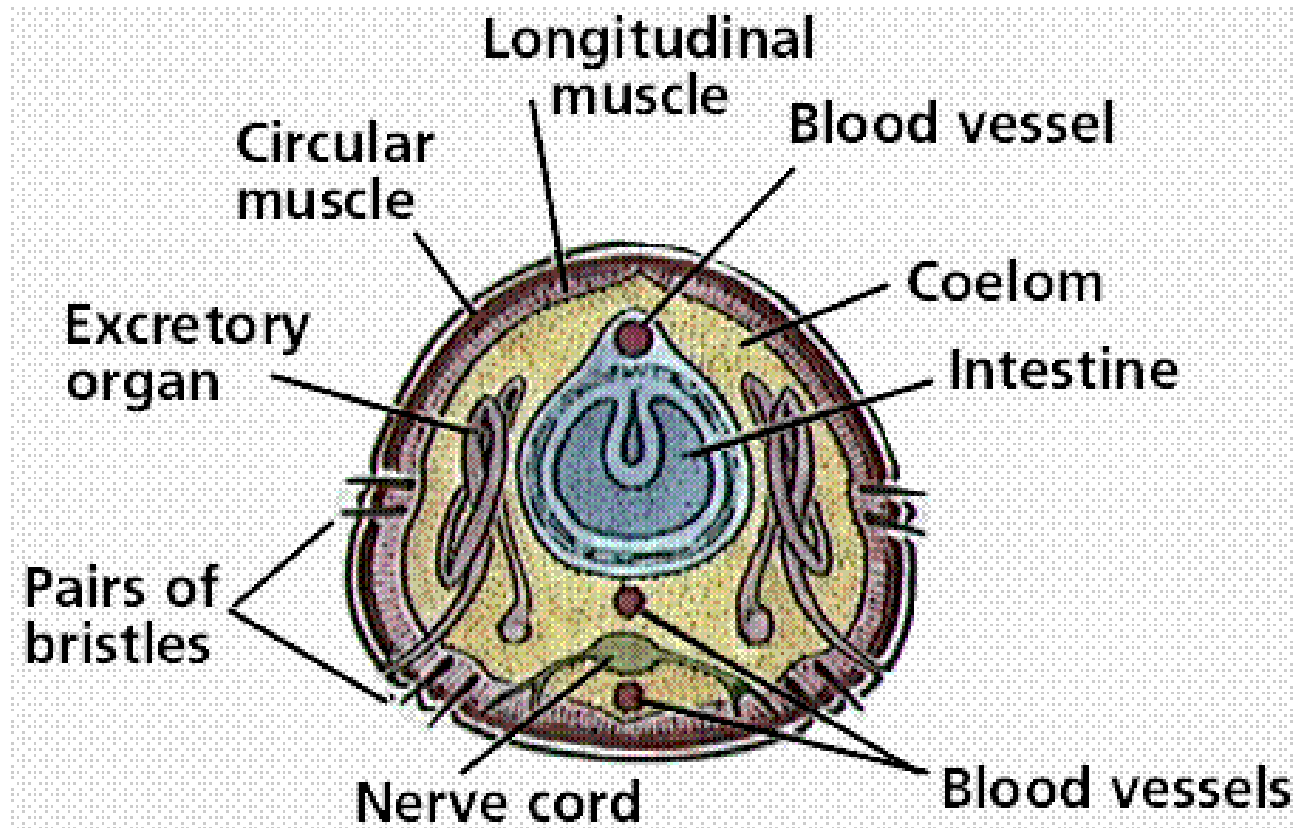
**EXCRETORY
TUBULES**

Image from: [http://yvalor.yru.ac.th/~suchirat/campbell/exs3\(943\).jpg](http://yvalor.yru.ac.th/~suchirat/campbell/exs3(943).jpg)

INTERNAL STRUCTURES

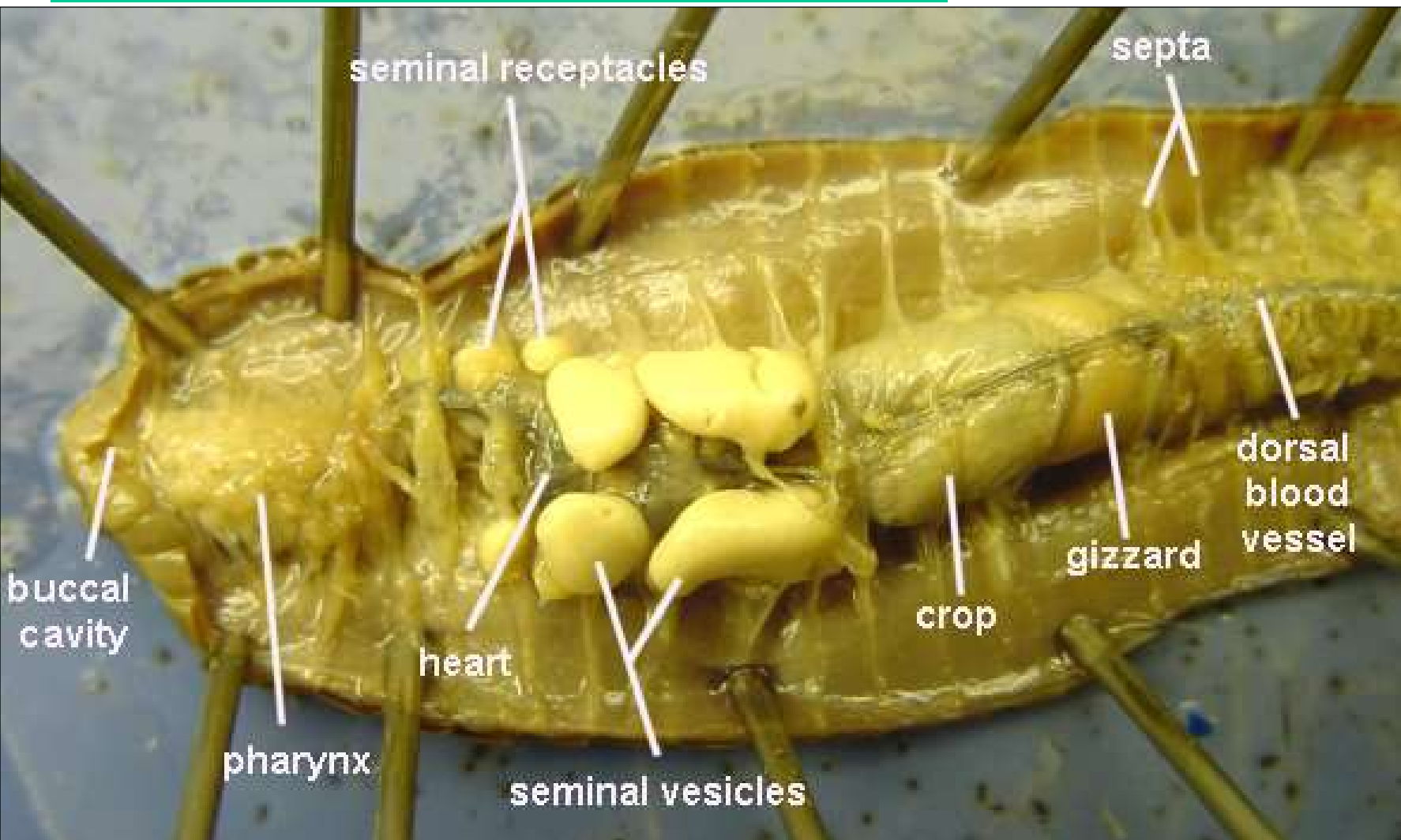


INTERNAL STRUCTURES



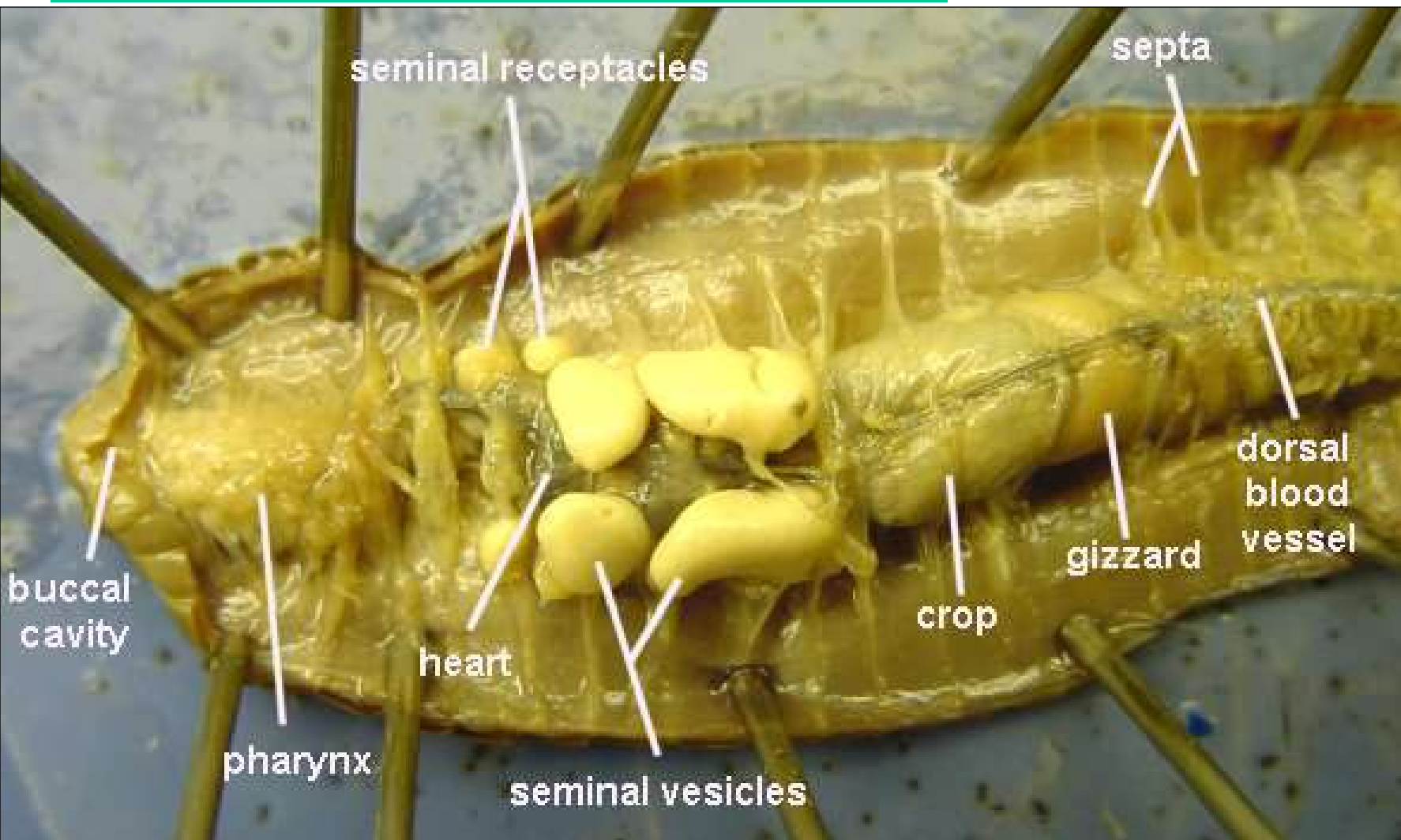
EUCOELOMATES

“true” coelom



SEMINAL VESICLES

store sperm to give away to other worms



SEMINAL RECEPTACLES

store sperm received from other worms

INTERNAL STRUCTURES

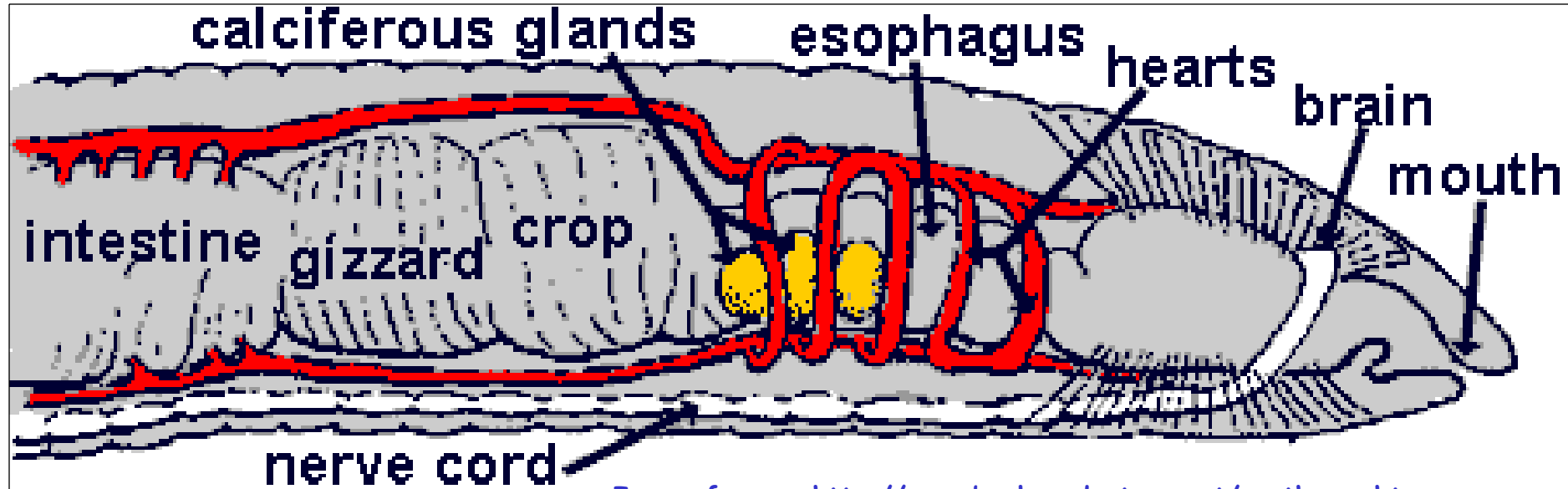
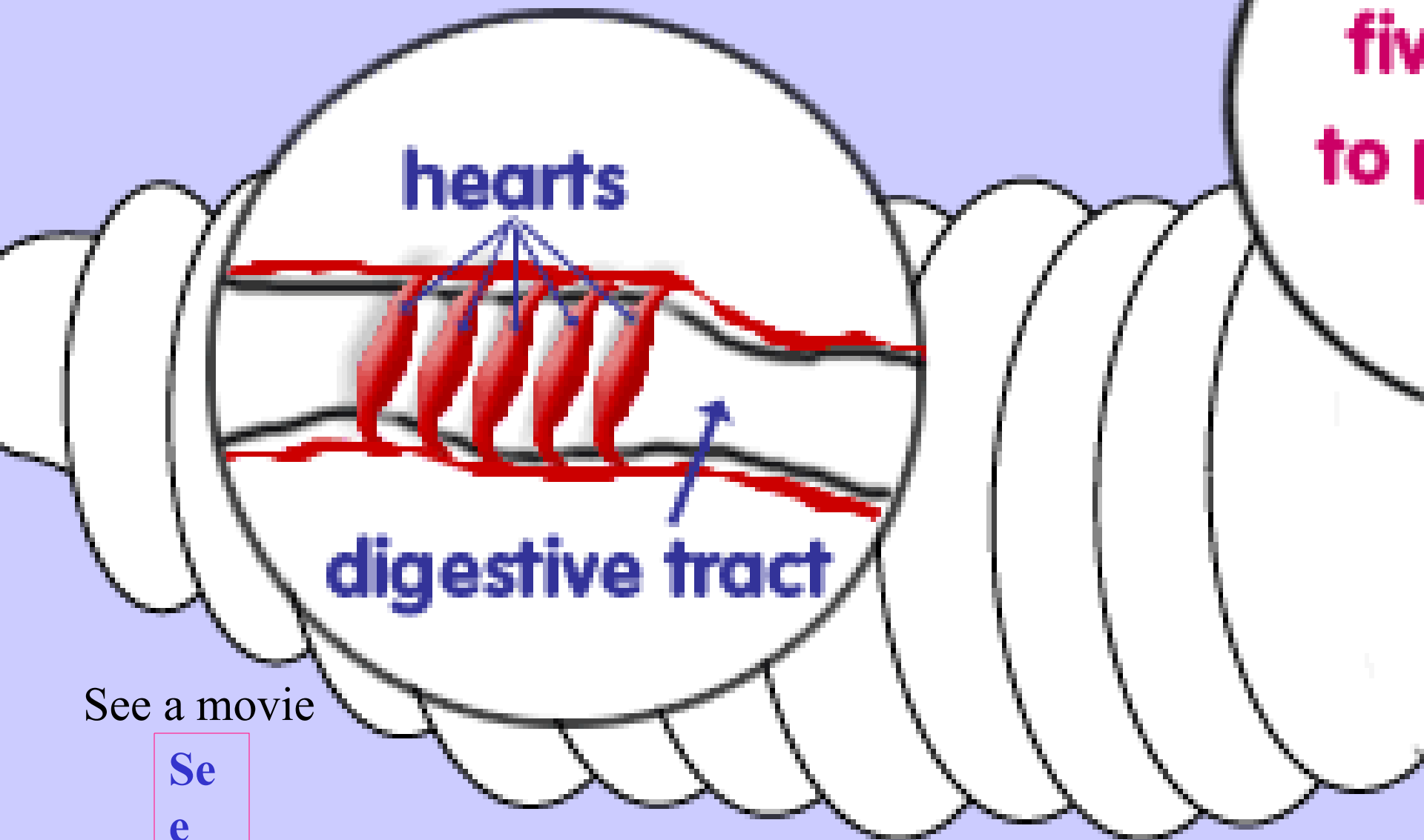


Image from : <http://www.backyardnature.net/earthworm.htm>

DORSAL BLOOD VESSEL
VENTRAL BLOOD VESSEL
AORTIC ARCHES = heart
VENTRAL NERVE CORD

Image from:

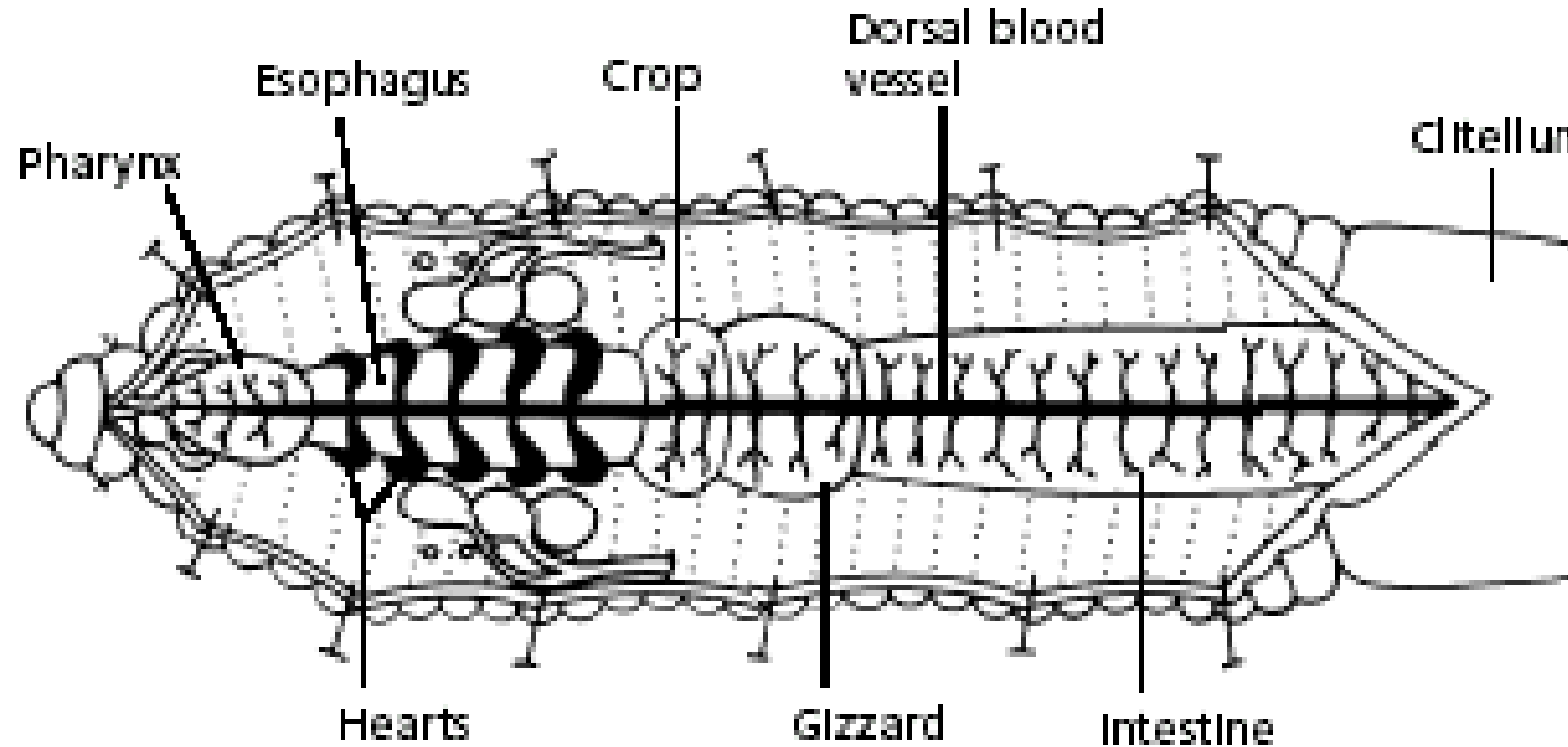
<http://www.urbanext.uiuc.edu/worms/anatomy/anatomy6.html>



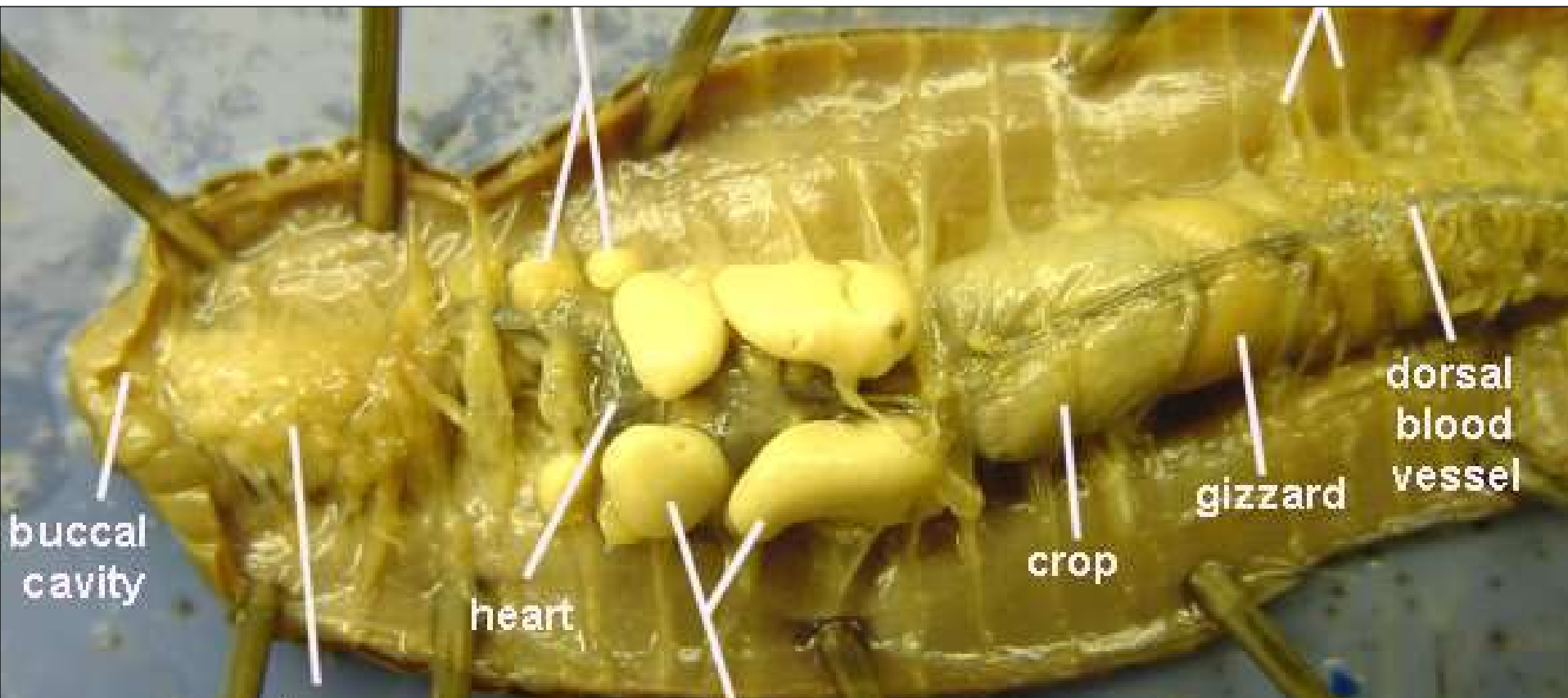
See a movie

Se
e

INTERNAL STRUCTURES



http://sps.k12.ar.us/massengale/earthworm_dissection.htm



CROP – stores food

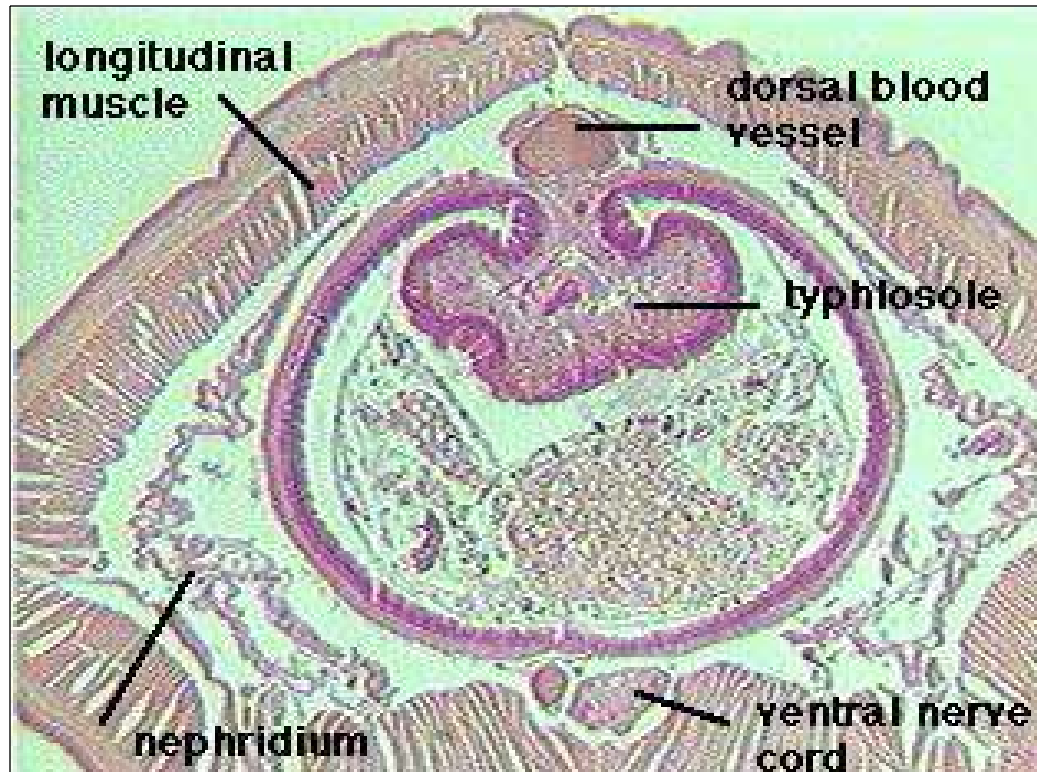
GIZZARD- grinds food

INTESTINE- absorbs nutrients

TYPHLOSOLE

Ridge **INSIDE** intestine

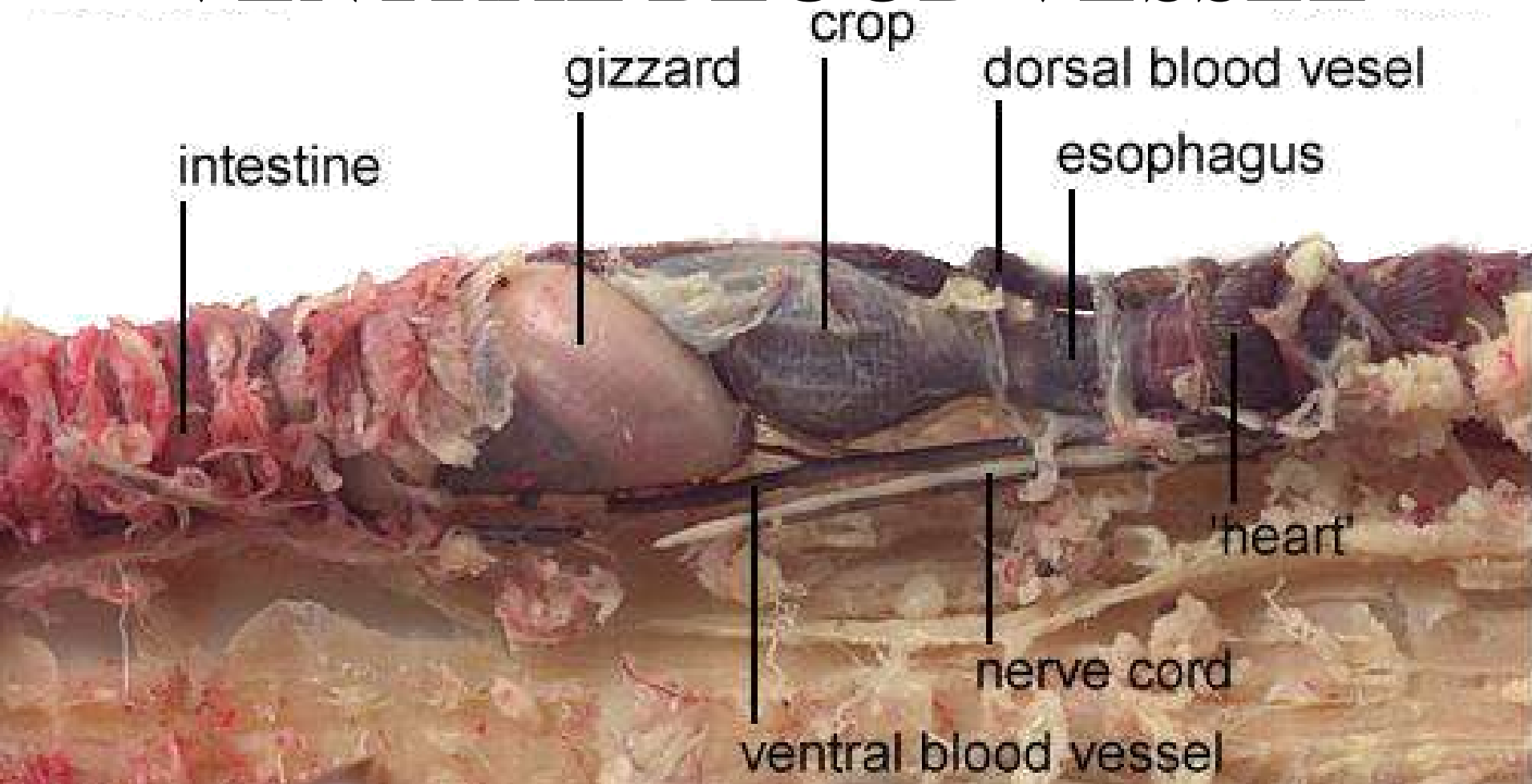
Image from: <http://www.uleth.ca/bio/bio1020/images/worm2.jpg>



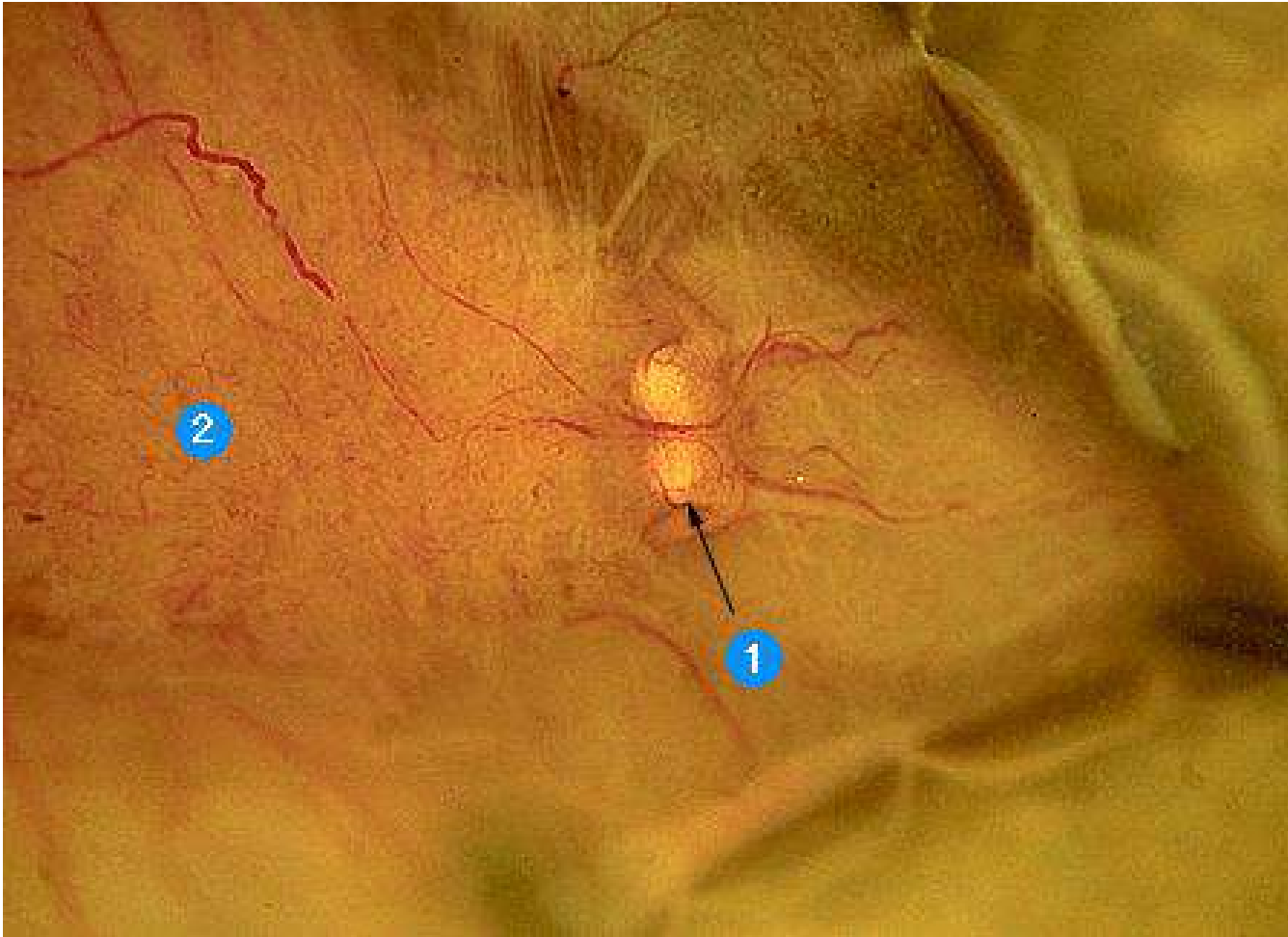
It increases surface area so more nutrients are absorbed

VENTRAL NERVE CORD

VENTRAL BLOOD VESSEL



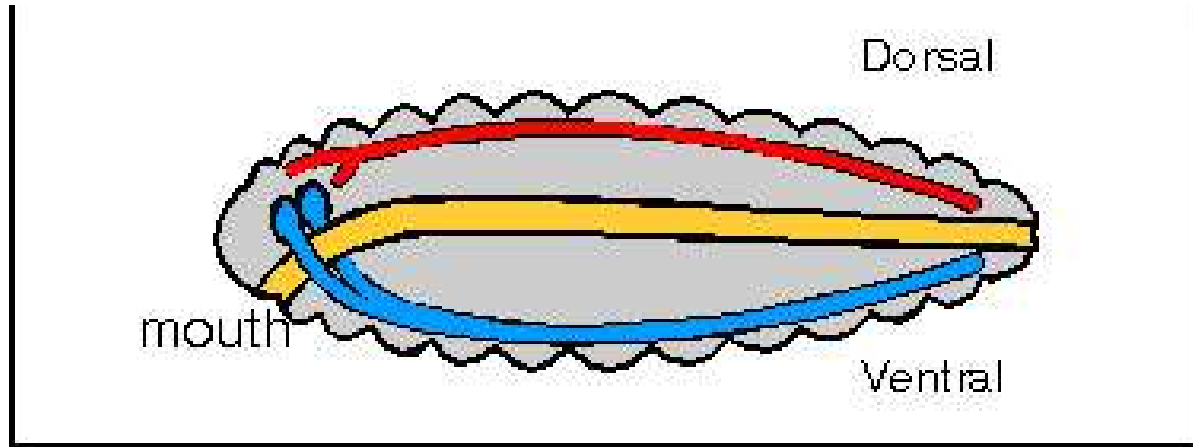
INTERNAL STRUCTURES



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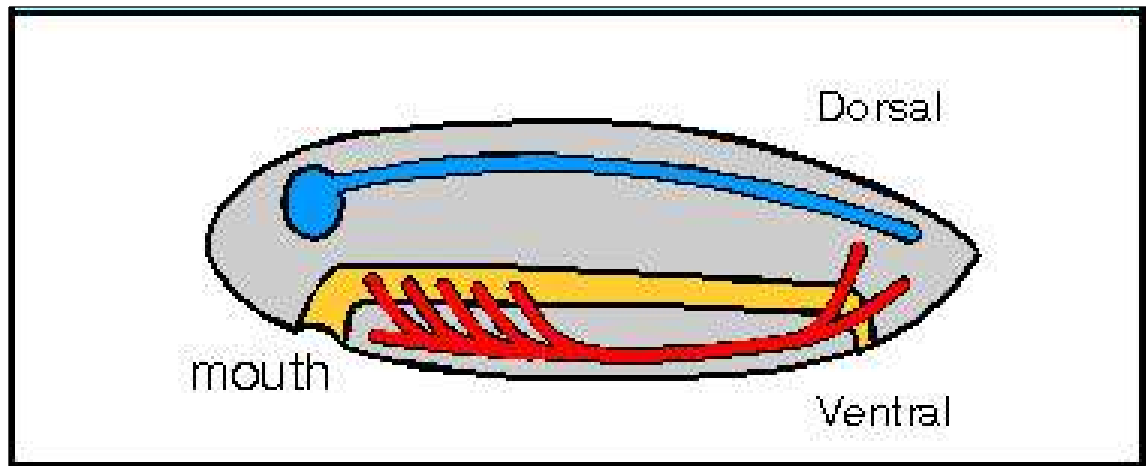
CEREBRAL GANGLIA=“brain”

INVERTEBRATES



DORSAL HEART/VENTRAL NERVE CORD

INVERTEBRATES



VENTRAL HEART/DORSAL NERVE CORD

INTERNAL STRUCTURES

Circular Muscle

Longitudinal Muscle

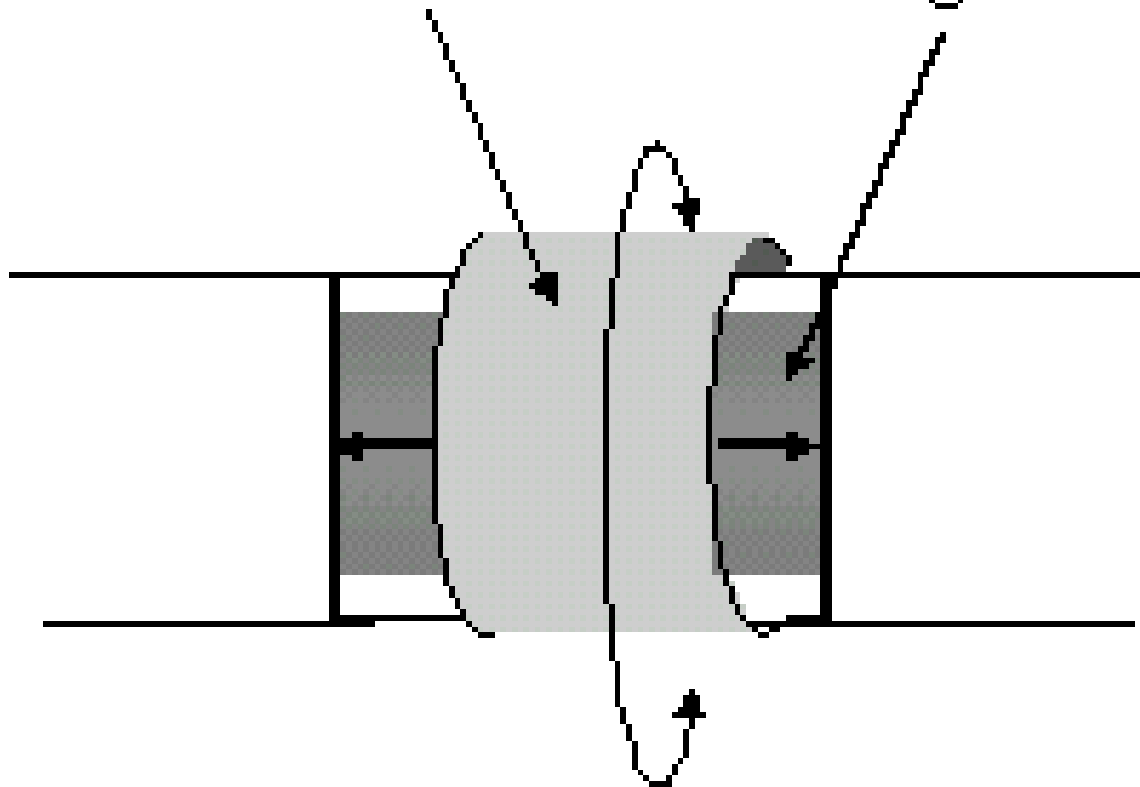


Image from:

[http://faculty.clintoncc.suny.edu/faculty/Michael.Gregory/files/Bio%20102/Bio%20102%20lectures/Animal%20Diversity/Protostomes/mollusks.htm#Chelicerates%20\(subphylum%20Chelicerata](http://faculty.clintoncc.suny.edu/faculty/Michael.Gregory/files/Bio%20102/Bio%20102%20lectures/Animal%20Diversity/Protostomes/mollusks.htm#Chelicerates%20(subphylum%20Chelicerata)

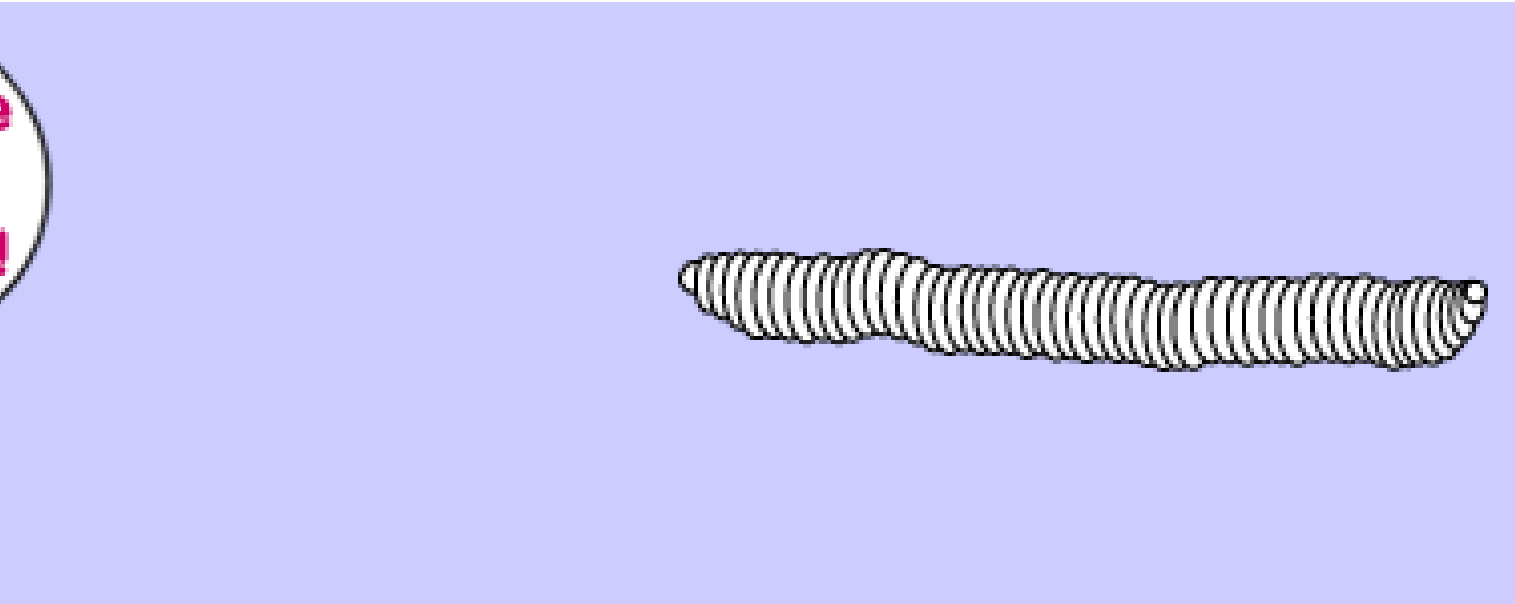


Image from: <http://www.urbanext.uiuc.edu/worms/anatomy/anatomy8.html>