

2000

## Earthworm Study

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### Recommended Citation

Shryock, Carmen R.N., R.M.A., B.S., M.Ed. (2000) "Earthworm Study," *Journal of Health Occupations Education*: Vol. 14 : No. 1 , Article 5.

Available at: <https://stars.library.ucf.edu/jhoe/vol14/iss1/5>

Journal of Health Occupations Education  
Spring 2000, Volume 14, Number 1

## Earthworm Study

Carmen Shryock

In August, an earthworm farm was received for the Health Science Technology I class. It had about 24 “nightcrawlers” and directions for their upkeep. As students came to class, two from the morning session and two from the afternoon session were assigned to be responsible for the worms. I planned to use the worms for a cardiology lab in conjunction with the A.D.A.M. anatomy course. The lab uses the worms to count pulse.

Students responsible for the upkeep of the worms have had an ongoing “relationship” with them and learned how to count pulses so they can supervise the lab for the other students. Afternoon students planned, prepared, and presented a lab to a fourth grade class at an elementary school and are now better prepared to present the lab to our class.

A copy of the lab they prepared is enclosed. I have been extremely proud of the work the students presented; they used problem-solving skills, computer skills, biology research, and speech skills to present the lesson. In addition, they learned more about working with younger students (one of the students plans to become a pediatrician).

Another benefit has become apparent in the course of maintaining the worm farm. It is a great tool for recruitment as students who are interested in the health care field can see that the labs are hands-on and not run-of-the-mill book emphasis. Also, we will use the worms for other elementary and middle school presentations to encourage future health care providers to enroll at the technology center for specialized study.

Name \_\_\_\_\_

# Directions:

1. Place the worm on the plate.
2. Look for the blood vessel on the top surface of the earthworm. (The top is darker)
3. Count each pulse of the earthworm for exactly 15 seconds.

**To count the pulse you need to look at the top surface of the worm.  
You will see a dark line running from one end to the other; this is the blood vessel.  
The pulse is the disappearing and reappearing of the vessel.  
Everytime you see this action it is one beat of the pulse.**

4. Multiply your answer by four. Write down your answer in the table below.
5. Repeat steps 3 and 4 three more times.
6. Now check your partners pulse for 15 seconds. Multiply by 4 and record on the table.
7. Repeat 6 and 7 three more times.
8. Now that you have all the pulses recorded, add all the worm pulses together and write in the total in the total box. Next, take that number divide by 4 and write in that number in the average box.
9. Do the same for your partner's pulse. (Repeat step 8)

Number of times pulse was taken	Worm pulse for 15 seconds	Worm pulse for 1 minute	Partners pulse for 15 seconds	Partners pulse for 1 minute
1				
2				
3				
4				
<b>Total</b>	----- ----		-----	
<b>Average</b>	----- ---		-----	