

# HSTA TEACHER NOTEBOOK

2021-2022



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# HSTA Teacher Contract

## HEALTH SCIENCES and TECHNOLOGY ACADEMY

### HSTA TEACHER

### LEADERSHIP AGREEMENT

**THIS AGREEMENT**, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ by and between the Health Sciences and Technology Academy (hereinafter “HSTA”) and \_\_\_\_\_ (hereinafter “HSTA Teacher”) for leadership of the HSTA Club at \_\_\_\_\_ effective August 01, \_\_\_\_\_ through July 31, \_\_\_\_\_.

**WHEREAS**, HSTA has identified HSTA Teachers as the critical link which provides the coordination and leadership necessary to ensure that local HSTA Clubs are effective support structures for HSTA students. HSTA Teachers accomplish this by serving as academic role models that facilitate their HSTA Club students’ active involvement in learning experiences.

The HSTA Club experience shall include:

- 1) At minimum, 24 documented hours of informative and academically supportive local HSTA club meetings, including at least 6 hands-on science activities and 1 guest speaker, each semester;
- 2) A number of collaborative working/learning experiences that include:
  - A) Academic experiences designed to increase the students’ knowledge and skills in the area of modern technology, mathematics, and the sciences
  - B) Assisting students in conducting and presenting an investigative project of the students’ design at the annual HSTA Symposium, by ensuring that the all due dates are adhered. Due dates are outlined in the Research Notebook.
  - C) Non-formal learning experiences in the health sciences and math/science teaching designed to provide students with a broader perspective, i.e., school and community service activities, visiting clinics, shadowing rural healthcare professionals, seminars with other HSTA groups, and field trips

**WHEREAS:** the effective leadership of HSTA Club activities involves a significant investment by the HSTA teacher in organizational and coordination of activities which go beyond participation in the events. HSTA Teachers will be expected to maintain communication links with students, parents, HSTA staff, & CRA with timely responses to HSTA queries via e-mail, text or phone. Likewise, HSTA Teachers will submit **monthly reports** to the Field Site Coordinator and CRA.

**WHEREAS:** HSTA recognizes the unique nature of HSTA and therein the unique skills expected of HSTA Teachers; HSTA provides HSTA Teachers opportunities to participate in special professional development workshops and opportunities to present at professional conferences where appropriate. To ensure HSTA Teachers understand procedures and have the necessary skills essential to the success of the HSTA program and all students, HSTA Teachers are **required** to participate in the Fall HSTA Workshop, Summer Institute (two-weeks), and the Science Symposium.

**WHEREAS:** HSTA recognizes the importance and magnitude of the tasks of the HSTA Teacher; each group of HSTA Clubs is served by a local HSTA Field Site Coordinator who will facilitate the establishment of the club and the selection of club members, assist the HSTA Teacher with procurement procedures, Local Board Reports, and other administrative details. The HSTA Field Site Coordinator will also assist in the organization of extension and enrichment activities, such as but not limited to seminars, guest speakers, field trips, HSTA Science Symposium, and HSTA Summer Institute.

**NOW, THEREFORE, WITNESSETH: HSTA and HSTA TEACHER** agree to the following:

**HSTA Teacher Responsibilities:**

- ❖ To provide the leadership outlined above to the agreed upon HSTA Club and thereby provide the students in this club an academically supportive, enriching experience for the \_\_\_\_\_ - \_\_\_\_\_ HSTA year.
- ❖ To conduct 6 hands-on science activities and bring in 1 guest speaker each semester
- ❖ To complete lab safety, ethics and other necessary trainings provided through HSTA
- ❖ To complete multicultural education training
- ❖ To provide instruction on acceptable computer/Internet use to all students for HSTA activities
- ❖ To attend the Fall PDS, Summer Institute (two-weeks), and the Science Symposium
- ❖ To assist, mentor, and oversee the completion of Student Project documents and presentations
- ❖ To complete and submit Teacher Monthly Reports to FSC & CRA the last day of each month
- ❖ To complete all necessary DEI background checks and trainings

**HSTA Responsibilities:**

- To provide the HSTA Teacher the support and organizational structures outlined above.
- To evaluate the performance of the HSTA Teacher according to the expectations in this agreement.
- To provide, when duly applied for, reimbursement of receipts for HSTA related travel and expenses.
- To provide, when duly applied for and local HSTA Board approved, supplies and funding to support HSTA Club activities.
- To provide the following compensation for \_\_\_\_\_ - \_\_\_\_\_ academic year and summer:

<b>Academic Year</b>	<b>Summer Institute</b>
<u><b>Fall Semester</b></u> \$715 Base/club \$200 Fall Workshop (if worked)	<u><b>Summer (if worked)</b></u> \$ 500 Teacher Week \$1,000 Student Week
<u><b>Spring Semester</b></u> \$715 Base/club \$ 50 Supplement/school year of participation in HSTA \$200 Science Symposium (if worked)	
❖ Travel to events is paid separately.	

- In the event the HSTA program in this region is terminated due to lack of funding or factors beyond the control of HSTA, this agreement may be terminated.

**SIGNATURES:**

HSTA Teacher \_\_\_\_\_ Date \_\_\_\_\_

HSTA Local Governing Board \_\_\_\_\_ Date \_\_\_\_\_

HSTA Director/Supervisor \_\_\_\_\_ Date \_\_\_\_\_

HSTA Field Site Coordinator \_\_\_\_\_ Date \_\_\_\_\_

## **Division of Diversity, Equity and Inclusion (DEI)**

The DEI provides central leadership for education and advocacy and administers the compliance and mediation programs. The **DEI** reflects the institution's vision of social justice and the related values it embraces. The specific functions include:

- Providing leadership for a comprehensive education and awareness program throughout the campus community, using both formal and informal delivery methods to address the broad range of relevant issues;
- Assuring that the institution complies with all relevant federal and state laws, university policies, and requirements related to civil rights and affirmative action,
- Assuring that a professional mediation program effectively serves the campus community; and,
- Advocating throughout the institution and the state the vision and values for social justice.

Based on these functions, the following are identified as outcomes the DEI will specifically address and use as a basis for continual self-assessment of effectiveness:

- There will be broad involvement of the WVU campuses and their extended academic communities in identifying relevant issues and conducting programs to address them;
- The University will continue to evaluate, implement, and update as necessary its policies, procedures, and affirmative action plan, and monitor its progress toward meeting its goal of greater diversity within the University;
- A communication plan will be developed and utilized to consistently share and receive information from throughout the institution, stakeholders, the public, and the University's many constituents;
- There will be an effective relationship between the DEI and the regional campuses to meet their needs related to all aspects of education, compliance, mediation, and advocacy;
- There will be effective use of technology and resources to collect and manage necessary data and records as well as to provide program services as appropriate;
- The DEI will effectively and efficiently make wise use of all resources; and,
- Every request for program support or administrative action will be acted on in a timely manner.

### **Requirements**

- Complete Children on Campus online training every three years
- Background Check including DMV and Criminal every three years
- Fill out an Acknowledgment form for each guest speaker not DEI approved.

# Acknowledgment Document – Attach with Monthly Teacher Report

Children On Campus

Implementation Date: May 1, 2018

## ACKNOWLEDGMENT OF RULE 1.7 CHILD PROTECTION

Rule 1.7 Child Protection contains important information about West Virginia University's commitment to providing protection of children on the University's premises or involved in University sponsored programs at all geographic locations by providing guidance on reporting requirements for Child Abuse and/or Neglect; providing guidelines for appropriate supervision of children; and ensuring that the University complies with all federal and state laws and regulations regarding the employment of children. (BOG Rule 1.7; 1.1)

By signing below, I am acknowledging that I have received access to the Board of Governors Governance Rule 1.7 Rule On Child Protection, <http://bog.wvu.edu/policies>, will abide by it, and will report any incidents of child abuse or neglect to the University's Title IX Coordinator, 304-293-5600, <http://titleix.wvu.edu/>." I understand I am a "Member of the University Community" (BOG Rule 1.7; 6.7) and have every responsibility to uphold the Board of Governors Governance Rule 1.7 Child Protection to ensure the safety of our youth.

If you have any questions regarding BOG Rule 1.7 Child Protection, please contact:

Cortney Simmons

Educational Outreach Specialist

Division of Diversity, Equity, and Inclusion

[childrenoncampus@mail.wvu.edu](mailto:childrenoncampus@mail.wvu.edu)

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\_\_\_\_\_  
Vendor/ Contractor Business Name

\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Signature of Vendor/Contractor

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Vendor/ Contractor Name



# HSTA Family Code of Conduct

## *HSTA Family Code of Conduct*

### Help Someone to Achieve (HSTA)

- Be Supportive and lend a helping hand when someone needs it.
- Know that we're not alone.
- Embrace the HSTA mission as we approach each professional task.
- Be open and honest with our co-workers about things which affect the group as a whole.
- Remain professional.
- Do our best.
- Do what has to be done.
- Participate! participate! participate!
- Make decisions to promote HSTA's success, not personal agenda.
- Utilize everyone's unique talents.
- Hold each other accountable for our responsibilities.
- Be positive!

### Do Not "Dis" Respect

- Be kind to everyone, even those that are absent.
- Treat each individual as we would want to be treated-with respect/fairness/open-mindedness.
- Respect others ideas and opinions even if we disagree.
- Try to make each other look good, not bad.

### Communication

- Comment on an idea not a person.
- Be positive in expressing our concerns.
- Give much thoughts before reactions: consider the effect.
- Remain open about new ideas.

### Have Fun

- Keep our sense of humor alive and active. It will help smooth the potholes along the way.
- Be positive about life.
- In all you do along the way, have fun.

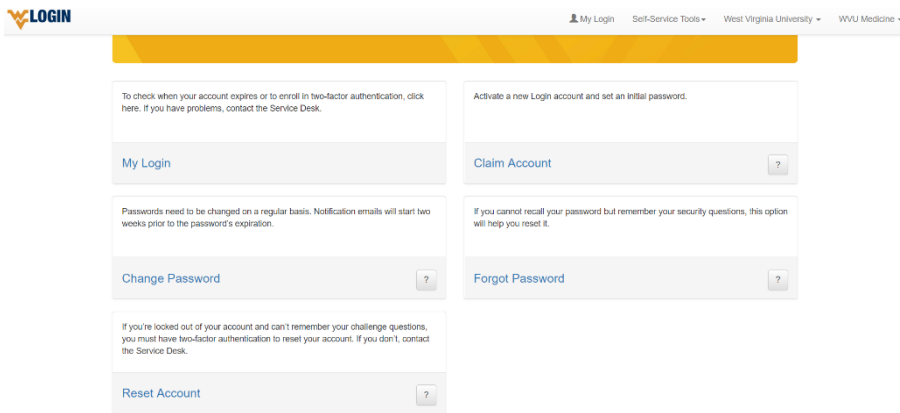
# Teacher Travel Handout

If you can log-in to your HSC e-mail account skip to Step 2

1. Go to login.wvu.edu

If you have never logged into your HSC account, click “Claim Account”

If you have logged in before, click “Forgot Password” or “Reset Account”



You may need to download the Duo Mobile app for two-factor authentication. It is free and sends you notifications to approve your login. You can also use a code on the app to login.

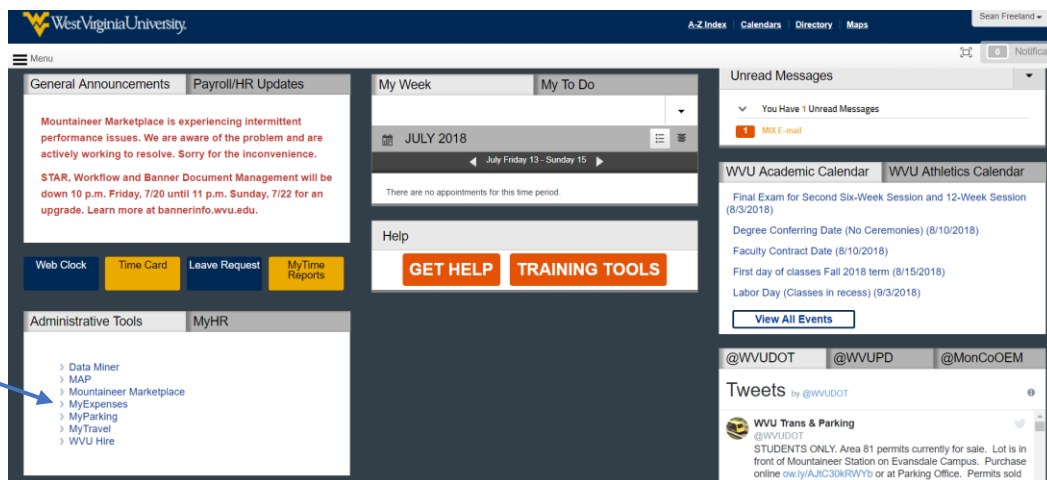
Follow the instructions to ensure that you are able to login to your HSC account.

If you need help, please call the help desk 304-293-4444.

2. Go to portal.wvu.edu

Login using your HSC account.

Scroll down. On the left you will see “Administrative Tools.” Click on “My Expenses”



This will take you to Chrome River. Jill will enter your travel for camp for you. You will need to enter Chrome River to approve it.



3. In Chrome River, do the following:



Within MyExpenses													
<p>1. Access MyExpenses:</p> <ul style="list-style-type: none"> <li>Log in at MyAccess.wvu.edu</li> <li>Click the MyTools tab</li> <li>Click the MyExpenses button</li> </ul>													
<p>2. After logging in, view <i>Approvals Needed</i> in the upper left panel. Click <b>2 Expense Reports</b> to view details. (The precise number of reports will vary depending on how many have been submitted to you.)</p>													
<p>3. To view the details for an expense report, click within a row.</p>	<table border="1"> <thead> <tr> <th>Expense Report</th> <th>Date</th> <th>Amount</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>Employee Study Meeting in Charleston</td> <td>07/13/2017</td> <td>100.00</td> <td>✓</td> </tr> <tr> <td>Employee Study Conference in Pittsburgh</td> <td>07/13/2017</td> <td>200.00</td> <td>✓</td> </tr> </tbody> </table>	Expense Report	Date	Amount	Status	Employee Study Meeting in Charleston	07/13/2017	100.00	✓	Employee Study Conference in Pittsburgh	07/13/2017	200.00	✓
Expense Report	Date	Amount	Status										
Employee Study Meeting in Charleston	07/13/2017	100.00	✓										
Employee Study Conference in Pittsburgh	07/13/2017	200.00	✓										
<p>4. You can <a href="#">open</a> the report (and <a href="#">adjust</a>), view PDFs of the reports and receipts, track the report, <a href="#">return</a> to the creator, <a href="#">approve</a>, and <a href="#">reassign</a> to another employee.</p>													

Click Open and review the info on the cover page, paying close attention to the address (which should be the traveler’s home address) and the departure and return dates (which should be the first and last dates of travel).

View each line submitted within the request for accuracy.

If anything is incorrect or any expenses are missing, click Return and enter an explanation. Otherwise, click Submit.

If you have questions, please contact Jill Simmons at [jssimmons@hsc.wvu.edu](mailto:jssimmons@hsc.wvu.edu) or 304-374-6803.

## **Teacher Evaluations**

- Local Governing Boards are to conduct yearly teacher evaluations. The teacher evaluation process was revised in 2017 and serves as the base-line year, which means all teachers were evaluated on that year.
- Each FSC will send a copy of the self-evaluation to each teacher to complete. Teachers are asked to return the completed self-evaluation to the field site prior to their evaluation meeting with the local board and to bring a copy with them.
- The local board members and FSC will use the self-assessment and complete their assessment with the teacher. This a time for discussion and planning.
- Veteran teachers with more than 3 years of experience will be evaluated every three years.
- Teachers with less than 3 years of experience will be evaluated yearly until such time they reach veteran status.

## HSTA Teacher Evaluation: Self Reflection

Review period from \_\_\_\_\_ to \_\_\_\_\_

<b>Name:</b>	
<b>Club:</b>	
<b>Date:</b>	

1. As a teacher I provide academic experiences designed to increase the students' knowledge & skills in:

1.1 Science			
Distinguished	Accomplished	Emerging	Unsatisfactory
1.2 Math:			
Distinguished	Accomplished	Emerging	Unsatisfactory
1.3 Technology:			
Distinguished	Accomplished	Emerging	Unsatisfactory
1.4 Research Design:			
Distinguished	Accomplished	Emerging	Unsatisfactory
Comments:			

2. As a teacher I provide a **minimum of:**

2.1 Twenty-four, (24) hours face to face contact time per semester			
Distinguished	Accomplished	Emerging	Unsatisfactory
2.2 Six, (6) hands-on science activities per semester			
Distinguished	Accomplished	Emerging	Unsatisfactory
2.3 One, (1) guest speaker per semester			
Distinguished	Accomplished	Emerging	Unsatisfactory
Comments:			

3. As a teacher I participate in the following required events:

3.1 Fall Professional Development			
Distinguished	Accomplished	Emerging	Unsatisfactory
3.2 Two, (2) weeks of Summer academy			
Distinguished	Accomplished	Emerging	Unsatisfactory
3.3 Science Symposium			
Distinguished	Accomplished	Emerging	Unsatisfactory
Comments:			

4. As a teacher I:

4.1 Complete and submit the monthly teacher report to the FSC by the deadline			
Distinguished	Accomplished	Emerging	Unsatisfactory
4.2 Ensure Project due dates are adhered to Research Document submission, and Final Approval			
Distinguished	Accomplished	Emerging	Unsatisfactory
4.3 Complete and keep current CITI ethics training			
Distinguished	Accomplished	Emerging	Unsatisfactory
4.4 Complete all DEI requirements			
Distinguished	Accomplished	Emerging	Unsatisfactory
4.5 Complete Lab safety training via the local school site or one provided by HSTA			
Distinguished	Accomplished	Emerging	Unsatisfactory
Comments:			

5. As a teacher I:

5.1 Motivate and engage students in learning, problem solving and collaboration			
Distinguished	Accomplished	Emerging	Unsatisfactory
5.2 Provide a safe, nurturing, and supportive environment conducive to learning			
Distinguished	Accomplished	Emerging	Unsatisfactory
5.3 Provide for appropriate supervision for students before, during and after events and meetings			
Distinguished	Accomplished	Emerging	Unsatisfactory
5.4 Work with parents, guardians, families and community entities to support student learning			
Distinguished	Accomplished	Emerging	Unsatisfactory
5.5 Work well with HSTA support staff and colleagues			
Distinguished	Accomplished	Emerging	Unsatisfactory
Comments:			

# HSTA Teacher Summative Evaluation

Review period from \_\_\_\_\_ to \_\_\_\_\_

<b>Name:</b>	
<b>Club:</b>	
<b>Date:</b>	

<b>Standard 1 Teaching</b>			
The teacher utilizes a variety of research-based instructional strategies			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher demonstrates a deep and extensive knowledge of the subject matter			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher motivates and engages students in learning, problem solving and collaboration			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher adjusts instruction based on a variety of student responses and needs			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher plans and prepares meeting activities to reflect the interests and topics of student research			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory

Comments:

<b>Standard 2 The Learner and the Learning Environment Mentoring and Support</b>			
The teacher understands and responds to the unique characteristics of the students			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher establishes and maintains a safe and appropriate learning environment			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher establishes and maintains a learner-centered culture that utilizes club time effectively			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory

Comments:

<b>Standard 3 Professional Responsibilities</b>			
The teacher attends fall professional development, symposium and summer academy			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher actively collaborates with the Field Site Coordinator, CRA, and colleagues			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher completes, maintains, and submits required reports, certifications, and documents in a timely fashion			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher completes 12 hands- on activities with the club during the year			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher and FSC have had two guest speakers attend club meetings			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory

Comments:

<b>Standard 4 Professional Responsibilities to Program and Community</b>			
The teacher participates in Regional and state-wide collaborative efforts to support the success of all students			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher works with parents, guardians, and families to support student learning and well-being.			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory
The teacher works with community entities and organizations to support student learning and growth			
<input type="radio"/> Distinguished	<input type="radio"/> Accomplished	<input type="radio"/> Emerging	<input type="radio"/> Unsatisfactory

Comments:

Signatures/Dates:

Teacher:	
JGB:	



## HSTA Contacts

<b>Field Sites</b>			
<i>Name</i>	<i>Title</i>	<i>Phone</i>	<i>Email</i>
Barbara Ulbrich	Boone	687-8223	baulbrich@hsc.wvu.edu
Kelli Templeton	Cabell/Lincoln	942-2014	ktempleton@hsc.wvu.edu
	Eastern Panhandle		
Michelle Simms	Greenbrier/Fayette	667-0011	msimms@hsc.wvu.edu
Kim Hawkins	Kanawha	720-9876	kim.hawkins@hsc.wvu.edu
Tammy Grubb	McDowell	887-3225	tgrubb@hsc.wvu.edu
Yvonne Harris	Mercer	320-4949	yharris@hsc.wvu.edu
Peggy Vance	Mingo/Logan	784-1454	pevance@hsc.wvu.edu
Karyn Williams	Mon/Marion	716-553-5819	karyn.williams@hsc.wvu.edu
Dillon Muhly-Alexander	Mountain HSTA	266-2361	djmuhlyalexander@hsc.wvu.edu
Darlene Stradwick	Ohio/Marshall	214-8949	dstradwick@hsc.wvu.edu
Vickie Webb	Raleigh	222-5532	vlw0008@hsc.wvu.edu
Tresa Mitchell	Roane/Calhoun/Braxton/Webster	531-2058	tmitchell@hsc.wvu.edu
<b>Central Administration</b>			
Mary Cottrell	Information Systems Technician	293-8294	mcottrell@hsc.wvu.edu
Kas Kasten	Program Assistant	293-0769	kkasten@hsc.wvu.edu
Summer Kuhn	CRA and Director of Summer Institute	282-1819	slkuhn@hsc.wvu.edu
Sherron McKendall	Senior Research Associate	293-1659	smckendall@hsc.wvu.edu
Merge McMillion	CRA	765-2736	mlmcmillion@hsc.wvu.edu
Cathy Morton	HSTA/HCOP Director	847-2372	catherine.morton@hsc.wvu.edu
Jill Simmons	Budget Analyst	293-6102	jssimmons@hsc.wvu.edu

## How to Conduct a HSTA Club Meeting

Club meetings should reflect non-formal learning experiences in the health sciences, math/science, and technology. Teaching should be designed to provide students with a broader perspective of each experience.

There should be a 10:1 ratio during club meetings to ensure that students have an attentive teacher, and their needs are being met. We really like to see weekly meetings to provide students with a supportive family atmosphere preparing them for college and the future.

The planning of meetings, hands-on-activities, guest speakers and student research projects are at your discretion; however, they need to follow guidelines set forth by HSTA.

In the teacher notebook, we have provided examples of yearly calendar of activities, hands-on-activities, examples of how other teachers run their meetings and ways to use your CRA.

### Meeting Tips:

- Elect officers
  - Let the students start the meetings, take attendance, remind others of the meetings, fill out the teacher report, coordinate community service events
- Plan your semester
  - Plan your activities and order your supplies early so that you can have meaningful meetings.
  - Plan all the dates (snow days, flood days happen but you can plan for make-up days or make-up activities). Provide students with a calendar of meetings for the semester.
- Make students responsible for their time!
  - We know that sports and other extracurricular activities are important to them, but HSTA is essential to their future. If they are serious about sports and HSTA then they will work with you to make sure they are meeting HSTA requirements. If students do not meet requirements - call them out immediately, hold them to the requirements, and let your field site know.
- Students lead activities
  - Have students lead activities, provide suggestions, etc.
- If you have other ideas or suggestions, please write them down and turn it in after the workshop or email them to your CRA. The CRAs will compile this information and email it out to all the HSTA teachers.

## Lesson Summary and Materials List

### Lesson #1

- Introduction to HSTA/Notebook
- HOA #1 Lab/ #2 Ethics

### Lesson #2

- Research Project: Project Selection
- HOA #3 Catapult: Materials are in the club kit and student kit: Ping Pong Ball, Plastic Spoon, Paint Stirrer, Spool, and Tape

### Lesson #3

- Research Project: Observation
- HOA #4 Catapult: Lesson #2 materials and various items from the classroom/home.

### Lesson #4

- Research Project: Observation
- OnTrack Directions and First Video

### Lesson #5

- Research Project: Research Question/Variables
- HOA #5: Materials – If in person, work with FSC to determine what ingredients you need. If students are at home, they will try to make Trail Mix on their own.

### Lesson #6

- Research Project: Research Question/Variables
- OnTrack/Guest Speaker

### Lesson #7

- Research Project: Hypothesis
- OnTrack/Guest Speaker

### Lesson #8

- Research Project: Hypothesis
- OnTrack/Guest Speaker

### Lesson #9

- Research Project: Background

## Lesson #10

- Research Project: Background
- OnTrack

## Lesson #11

- Research Project: Procedures
- HOA #6: Materials are in the club kit and student kit: Alka Seltzer tablets, marker, and three cups.

## Lesson #12

- Research Project: Procedures
- OnTrack

## Lesson #13

- Research Project: Final Approval

## Lesson #14

- Research Project: Title/Project Recruitment and Materials
- HOA #7: Materials – If in person, work with HSTA FSC to determine when you need Earthworm kits. If students are at home, they will complete online activity.

## Lesson #15

- Research Project: Research Plan
- OnTrack

## Lesson #16

- Research Project: Data Collection
- HOA #8: Materials are in the club kit and student kit: Toothpicks

## Lesson #17

- Research Project: Data Collection
- OnTrack

## Lesson #18

- Research Project: Data Collection
- HOA #9: Materials are in the club kit and student kit: Ziplock baggies, three cups, and marker. \*Milk and Vinegar not provided. Work with HSTA FSC to get milk and vinegar.

### Lesson #19

- Research Project: Data Collection
- OnTrack

### Lesson #20

- Research Project: Data Collection
- HOA #10: Handout in Notebook

### Lesson #21

- Research Project: Data Collection
- OnTrack

### Lesson #22

- Research Project: Data Collection
- HOA #11: Materials are in the club kit and student kit: ruler, three cups, paper towels.  
\*Scissors not provided.

### Lesson #23

- Research Project: Graphing
- OnTrack

### Lesson #24

- Research Project: Statistical Analysis
- OnTrack

### Lesson #25

- Research Project: Conclusion
- OnTrack

### Lesson #26

- Research Project: Submit Final Presentation **Due April 29<sup>th</sup>**
- HOA #12: Vitamin C Experiment: Materials – If in person, work with HSTA Teacher to determine when you need to order Vitamin C Kits and other items for the experiment. If students are at home, students will watch their teacher demonstrate the lab activity.

## Guest Speakers

Each semester you need at least **one** guest speaker. Remember to fill out your Teacher Report to document when you have a guest speaker and include an acknowledgment form. Below is a list of potential guest speakers and topics.

- Career Opportunities
  - Find out what careers your students are interested in and invite people from that field.
- Research Project Focus
  - Have a project about the environment – invite someone that works in that field.
  - Have a project about health – invite someone that works in that field.
- College Preparation
  - Invite Kas Kasten, HSTA Transitions and Records Coordinator/HCOP, to talk with students about the HSTA Waiver.
    - [kkasten@hsc.wvu.edu](mailto:kkasten@hsc.wvu.edu) 304-293-0769
- Virtual Labs
  - Contact your CRA for a list of researchers and scientists that will open their labs up!
- Remember guest speakers don't have to be in person. Skype, Zoom, or Go-To-Meetings work great!
- Ask a guest speaker to also bring a hands-on-activity or lead a hands-on-activity over Skype, Zoom, or Go-To-Meeting.



## HSTA Teacher Report

***Field Site Coordinators must use the teacher reports to complete their mandatory bimonthly reports.*** Teacher reports are due on the last day of the month to accommodate this schedule. Make sure your report is up to date and submitted on the last day of the month. You will submit your report through REDCap as an attachment. You can use the link below and/or go to the HSTA website for the link.

REDCap Link:

<https://redcap.wvctsi.org/redcap/surveys/?s=TLT4JCFPD8>

Due Dates:

- October Report is due on October 31<sup>st</sup>
- November Report is due on November 30<sup>th</sup>
- December Report is due on December 31<sup>st</sup>
- January Report is due on January 31<sup>st</sup>
- February Report is due on February 28<sup>th</sup>
- March Report is due on March 31<sup>st</sup>
- April Report is due on April 30<sup>th</sup>
- May Report is due on May 31<sup>st</sup>

## Club Report Directions

Download the HSTA 2021-22 Report from the website.

Instead of 24 hours in person contact, students will earn 24 points. These points are received by attending meetings and completing assigned activities during in-person club meetings (or online meetings in the event of COVID related shutdowns/quarantines.)

In-club meetings need to be 90-120 minutes to complete activities. Zoom meetings need to be 40-60 minutes long to promote conversations and dialogue.

Students will earn points based on in-person meeting/zoom meetings and/or completing activities.

Partial credit can be received by students who partially attend or partially complete assignments

Make sure to upload your report at the end of every month through REDCap.

Click on the link: <https://redcap.wvctsi.org/redcap/surveys/?s=TLT4JCFPD8>

- You will enter your first and last name, the first and last name of your FSC, select your region, then your high school and/or club and finally upload your excel file.
- Also update any acknowledge forms from that month.
- If you want a confirmation email, you can enter your email address once you submit.

## HSTA Calendar

Create a calendar for each semester. Include due dates, events and club meetings. Having consistence meeting dates and times allow for planning and increases attendance. Students who work jobs, play sports, or other extracurricular activities can plan ahead. A calendar with the deadlines will also keep students on task. If you have planned meetings, students can also keep track of their own attendance.

Some teachers will use their school calendar and others will create their own calendar.

There are blank calendar pages in the Club Notebook.

*College Prep Activity: Go over the importance of a college syllabus and how to plan their time. Use the blank calendar sheets in the HSTA Club Notebook and have students fill in their HSTA deadlines, meetings, and events for both semesters.*

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Sign in and sign out sheets are a great idea to help keep track of attendance. Students can sign in at the start of the meeting and sign out when they leave. Students can also keep track of their own points – great math lesson! Averaging your test scores for a final grade, adding up HSTA meeting points to find their attendance average.

Students are very busy with other activities, but need to make at least 70% of their HSTA meetings. Make sure your meeting is full of activities and research work!



# Empowerment

## *Opportunity*

- HSTA is opening a world of opportunity for you. Seize each moment!
- You have been offered a tuition waiver to state-supported colleges and universities throughout the state.
- You must complete the requirements of HSTA to receive this waiver, however.
- It is not a gift, but a reward that you will receive for working hard to accomplish your goals.
- So, remember to respect HSTA for the tremendous opportunity it is giving you!

## *Power of Change*

- HSTA is a once in a lifetime opportunity to change your circumstances.
- You are given this opportunity to make a difference not only in your life, but in the lives of your family and friends.
- Please don't take it for granted but respect the power you have to really make a difference.
- How can you change the world?
  - **Do you**
    - ❖ Nobody in the world does you like you do you.
    - ❖ You are incredibly special.
    - ❖ When you chose to do you, people are moved, communities are transformed, stars are born, and the world is changed.
  - **Do you for others**
    - ❖ True greatness comes from serving others.
    - ❖ When you use your talents and gifts to give, miracles happen.
  - **Do you with others**
    - ❖ We're better together.
    - ❖ There is nothing more powerful than a group of people that come together for a common mission.
    - ❖ And it makes things more fun!
- Some Activities to celebrate the power of making a difference:
  - **1. Tidy School Grounds**-Raking leaves, planting fall flower bulbs, and tidying the school grounds is a great way to get involved in volunteer work and community service (it's also a good way for them to get some fresh air.)
  - **2. Thank You Cards**-Create thank you cards for people in your school or community. Making a difference doesn't always have to be about volunteering and community service. It can also be about random acts of kindness and empathy. Showing people appreciation and gratitude for the work they do is an easy way for young students to give back to the community.
  - **3. Crafts for Senior Centers**-Get crafty and make coffee mugs for nursing homes and senior centers. Making a difference is about building community awareness, and this activity accomplishes that by bridging the generation gap. Encourage an attitude of service by offering the gifts in person.
  - **4. Raise Money for Local Charities**-Hold a talent show, bake sale, or car wash and donate the proceeds to a local charity. Making a difference is about giving back to the community, and there's no better way to do that than by raising awareness and money for a local charity.

### *How do the requirements of HSTA empower you to help your community?*

- **Community Service**-By getting involved in projects that will improve your community, you can change the opportunities available to your family, friends, and neighbors. (Ex-community gardens, walking trails, healthy cooking classes, etc.)
- **Research Projects**-Your research projects can make a real difference in the lives of the people in your community. (Ex-flood relief, water quality, after-school fitness programs, etc)
- **Summer Camp**-By attending summer camp you can get ideas for research projects to improve your community and become connected with professionals that can facilitate further research and community service. (Ex-Professors, extension agents, doctors, other business contacts, etc.)
- **Club Meetings**-Club meetings give you the resources and connections you need to empower you to make a change in the community.

## **Teamwork and Community Engagement**

It is important for HSTA students to work with others as part of a team or teams. As part of a team students learn to:

- Break complex tasks into parts and steps
- Plan and manage time
- Refine understanding through discussion and explanation
- Give and receive feedback on performance
- Challenge assumptions
- Develop stronger communication skills
- Tackle more complex problems than they could on their own.
- Delegate roles and responsibilities.
- Share diverse perspectives.
- Pool knowledge and skills.
- Hold one another (and be held) accountable.
- Receive social support and encouragement to take risks.
- Develop new approaches to resolving differences.
- Establish a shared identity with other group members.
- Find effective peers to emulate.
- Develop their own voice and perspectives in relation to peers.

It is also important for HSTA students to be engaged with members and leaders of their community. As a result of this, students learn to:

- Develop leadership skills
- Realize they have the power to influence decisions in their school or community
- Learn a skill set to represent certain members of their community
- Improve problem-solving and decision-making skills
- Become future leaders
- Feel a sense of belonging and purpose
- Become more comfortable sharing ideas
- Make a meaningful contribution to the community



## ***THINKING ABOUT MY CAREER GOALS***

### **What I Already Know:**

My career of choice is: \_\_\_\_\_

I think I will earn approximately per year: \_\_\_\_\_

I will need to go to college for \_\_\_\_\_ years and attain these degrees or technical trainings:

\_\_\_\_\_

The college I plan to attend is: \_\_\_\_\_ --

Classes I need to take in high school are \_\_\_\_\_

\_\_\_\_\_

I will need at least the ACT score \_\_\_\_\_ or this SAT score \_\_\_\_\_ for admission.

My education will cost:

Tuition/Fees: \_\_\_\_\_

Room/Board: \_\_\_\_\_

Textbooks: \_\_\_\_\_

Now: Use the internet to compare what you have written above to actual information that you found about your career path.

### **What I Found Out:**

The average yearly salary is: \_\_\_\_\_

I will need to go to college for \_\_\_\_\_ years and attain these degrees or technical trainings:

\_\_\_\_\_

The college I plan to attend is: \_\_\_\_\_ --

Classes I need to take in high school are \_\_\_\_\_

\_\_\_\_\_

I will need at least the ACT score \_\_\_\_\_ or this SAT score \_\_\_\_\_ for admission.

My education will cost:

Tuition/Fees: \_\_\_\_\_

Room/Board: \_\_\_\_\_

Textbooks: \_\_\_\_\_

## How much is an hour of HSTA time worth??

Over 4 years .....

**How much time do you invest?**

*(Check out your HSTA contract to find this information. Talk with students your age to estimate how much time you put in at your HSTA camp and remember that you must complete 2! Talk with an older HSTA member to find out how many hours they would estimate for symposium, if you have not attended before.)*

Community Service \_\_\_\_\_

(Contract)

2 weeks at camp \_\_\_\_\_

Who did you work with to estimate? \_\_\_\_\_

Club Meeting Time \_\_\_\_\_

(Contract)

Symposium + \_\_\_\_\_

Who did you ask for help? \_\_\_\_\_

\_\_\_\_\_

**Add it all up!!**

**Total Tuition and Fees for the college of your choice / (total hours from above)**

*Use the internet to do a little research to find out the current tuition and fees estimate for the college you plan to attend. Remember the cost of higher education goes up each year and this may be a low estimate. Multiply each semester by 8 or if tuition is given per year then multiply by 4 to calculate the total \$ amount for the typical 4 years it takes to earn a bachelor's degree.*

\_\_\_\_\_ / \_\_\_\_\_ = \_\_\_\_\_ \$/hr.

Dollars / hours

**This is basically what you are earning each hour you attend HSTA! Plus you are learning research, presentation, lab and social skills necessary to succeed in your career.**

**What about Graduate School???**

*If you plan to attend graduate school, you may be eligible for a waiver- just for fun look up the current tuition for medical school and pharmacy school or another professional school of your choice.*

## Team Building Activities

Look at website, under Teacher Resources, for more team building activities.

### Photo Scavenger Hunt

Materials needed: cell phone or iPad

- Instructions:
- 1) Divide the group of teenagers into small groups.
  - 2) Make sure each group has a cell phone or iPad.
  - 3) Give each team a copy of the items to take pictures of during their photo scavenger hunt. (Make sure that some of the activities on the list will require quite a bit of imagination and planning, such as having the group take a picture with a person in a tuxedo. Other things on the list can be enjoyable activities such as finding a yellow car and taking a picture in front of it, holding hands and dancing in a circle around a flagpole, taking a picture with someone who has red hair in braids, forming a letter of the alphabet with their arms and legs. Be creative with your list, the more outrageous the activity is, the more enjoyable the hunt will be.)
  - 4) Give at least an hour for the scavenger hunt.
  - 5) The judges will give the team members one point for each photograph that correctly depicts one of the items or activities on the list and will give extra points for creativity and imagination.

### Name Game (10 minutes)

- 1) Ask all the youth to go around and say their names aloud.
- 2) Then tell them that they are no longer allowed to talk.
- 3) Ask them to line up in alphabetical order according to their first name.
- 4) Starting at the front of the line, individuals say their name to determine if the order is correct.

### Ice Cream Whistle Race

- Make balls of ice cream with a whistle hidden in the center of it.
- Mix in some sour gummy worms to make it a little more interesting.
- With their hands behind their backs and only using their mouths, each player has to get the whistle in the center of the ice cream ball and blow the whistle (it has to make a noise).
- Be aware the whistle may be filled with ice cream, so it can get very messy!

## **Student and Parent Handbook**

- Located in the Club Notebook

## **Wavier Information**

- Located in the Club Notebook

## **Policy and Procedures Manual**

A full copy of the Policy and Procedures Manual for HSTA can be found on the HSTA website:  
<http://wv-hsta.org/media/6176/policy-and-procedures-approved-8-24-15.pdf>

## **CRA Regions**

- Cathy [catherine.morton@hsc.wvu.edu](mailto:catherine.morton@hsc.wvu.edu) 304-847-2372(Home), 304-644-2553(Cell/Text)
    - Regions: Eastern Panhandle
  - Merge [mlmcmillion@hsc.wvu.edu](mailto:mlmcmillion@hsc.wvu.edu) 304-765-2736 (Home), 304-904-9853 (Cell/Text)
    - Regions: Cabell-Lincoln, Greenbrier-Fayette, Kanawha, Boone, and Roane/Calhoun/Braxton/Webster
  - TBA
    - Regions: Mon-Marion, Mountain HSTA, Ohio-Marshall
  - Summer [slkuhn@hsc.wvu.edu](mailto:slkuhn@hsc.wvu.edu) 304-282-1819 (Cell/Text)
    - Regions: McDowell, Mercer, Mingo-Logan, Raleigh
- 

### **What is a CRA and how do I use them?**

The Community Research Associates are senior science teachers living in the communities. They use their educational skills to teach the science of health care and provide support on research projects and club activities.

What can your CRA do for you?

- Activities for clubs
  - Conduct an activity at a club meeting
  - Teach statistics related to projects
  - Assist in providing speakers
  - Arrange for guest speakers
- Assist with research project planning by:
  - Helping students choose topics
  - Developing and submitting IRBs
  - Providing research protocol for projects
  - Connecting students with “ready to go” research projects
  - Bringing research and science experts to clubs
  - Revise research document
  - Network existing community resources with clubs
  - Engaging stakeholders in the community
  - Networking with clubs (students) across the state doing similar projects
  - Providing teacher, community, club training
- Be a voice for regions
  - Attend community meetings
  - Representative at JGB

## Extra Handout for Lesson #2 Project Selection for 11<sup>th</sup>/12<sup>th</sup> Graders

### Working in Communities

*Have students define their community's characteristics and discuss the issues that they face.*

#### **Directions:**

1. Have them brainstorm and list on post-it paper their community characteristics
2. Have them brainstorm and list on post-it paper their community health disparities
3. Have them brainstorm and list on post-it paper their community resources
4. Discussion Questions:
  - a. What connections we can make between community characteristics, health disparities and resources?
  - b. What do we have to know about the communities we serve?
  - c. What do we have to do to protect the rights and welfare of our communities?
5. Have each group present to whole group once all groups have completed characteristics.
6. Brainstorm community problems related to group topic.

## Extra Handouts for Lesson #14 Earthworm

### Objectives:

To observe the external and internal structures of the earthworm (*Lumbricus terrestris*) which enable it to carry-out its life functions.

### -----LABORATORY EXERCISE-----

### Pre-lab:

Read this web page before beginning the lab... <https://www.oh-worm.com/post/how-do-worms-fertilize-soil>

Describe two ways earthworms help improve the quality of soil, making it suitable for plants to grow.

### Materials and Equipment:

A device with an internet connection.

### Procedure:

Navigate to the “oh worm” worm dissection and answer the questions below. Time marks from the video are provided and you may have to pause at each time mark to allow time to answer the questions.

\*Note — Check the box  when you complete a step.

<https://www.youtube.com/watch?v=1tVVVu5vY6w>

0:35 – Annuli

What phylum does the earthworm belong to?

How did this phylum get its name?

1:01 – Setae

Where are setae located and what do they resemble?

How does the setae enable the earthworm to move?

1:39 – Clitellum

What is the function of the clitellum?

How can you tell the anterior end from the posterior end of the worm?

2:58 – Internal Anatomy

Where are most of the worm's internal organs located?

3:26 – Septum

What are the septum?

4:24 – Cuticle

Where is the cuticle located and what does it look like? What is the function of the cuticle?

5:03 – Brain

Where is the brain located?

How many lobes does the brain have?

5:25 – Pharynx

Where is the pharynx located?

State two important functions of the pharynx.

1.

2.



5:33 – Mouth

Where is the mouth located?

5:44 – Reproductive Organs

Why is the earthworm considered hermaphroditic?

5:55 – Seminal Vesicles

State the role of the seminal vesicles.

6:10 – Seminal Receptacles

State the function of the seminal receptacles.

6:30 – Aortic Arches

How many hearts do earthworms have?

How is the circulatory system of the earthworm similar to that of a human?

7:11 – Skin

How does oxygen get into the worm's bloodstream if the worm has no lungs? Why does the worm's skin need to be kept moist?

7:37 – Esophagus

Where is the esophagus located?

What two structures are connected by the esophagus?

□ 7:55 – Crop & Gizzard

What is the function of the crop?

Compare the structure and function of the crop and gizzard. How does the gizzard help break down food?

□ 8:34 – Intestine

What is the function of the intestine?

How is the intestine maximized for food absorption?

□ 8:57 – Anus

What is the function of the anus? Why are worms great for plants?

□ 9:14 – Blood Vessels

State the function of the blood vessels.

□ 9:56 – Ventral Nerve Cord

Where is the ventral nerve cord located?

How does the ventral nerve cord allow the brain to communicate with each segment of the earthworm? Despite not having eyes, ears or nose, list four things worms can sense.

□ 10:27 – Chemoreceptors

What are chemoreceptors and where are they located? How do worms use their chemoreceptors?

10:43 – Dorsal Blood Vessel

What is the function of the dorsal blood vessel?

11:08 – Ventral Blood Vessel

What is the function of the ventral blood vessel?

11:21 – Opened Intestine

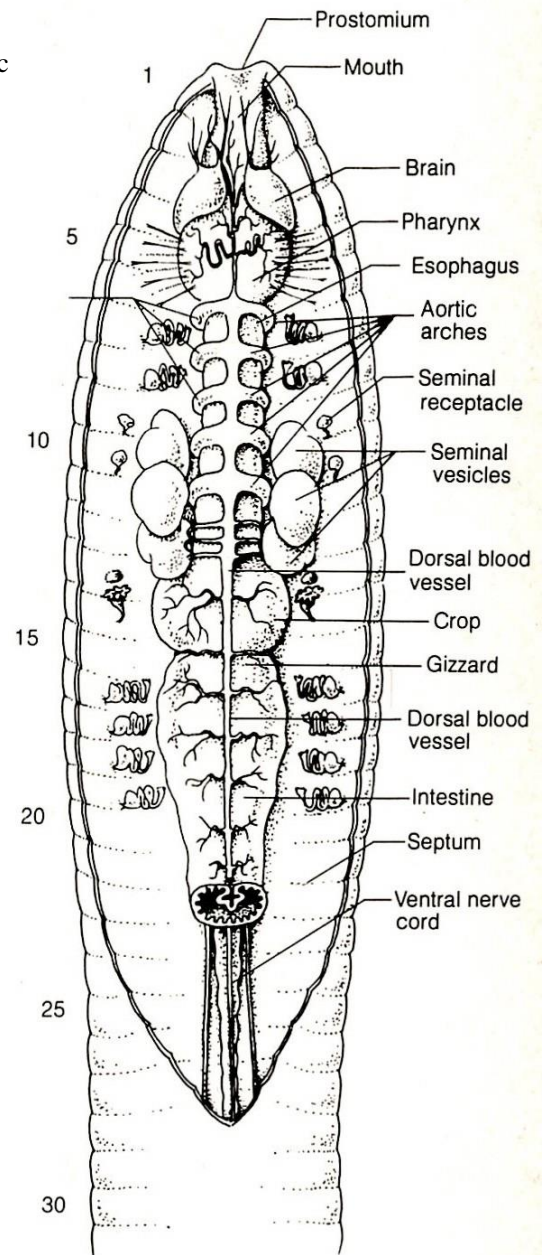
What's inside the intestine?

**Analysis Questions:**

Describe the interaction between the digestive and circulatory system of the earthworm. Support your description with observations from the lab.

In the table below, identify the structure as belonging to the: nervous system, c reproductive system.

Structure	System
Brain	
Clitellum	
Pharynx	
Esophagus	
Mouth	
Crop	
Gizzard	
Intestine	
Anus	
Aortic arches	
Dorsal blood vessel	
Ventral blood vessel	
Seminal vesicles	
Seminal receptacle	
Ventral nerve cord	
Chemoreceptors	



d. The internal anatomy of the earthworm

## Extra Handout for Lesson #20 Numbers Experiment

