

## 2011-2012 Lesson Plan for Henrico 21 Awards

Lesson Title: **Psychology Community Websites- *Sensation and Perception***

Submitted By: Drew Baker

School: Glen Allen High School

Target Grade/Subject: **10-12<sup>th</sup> grade AP Psychology**

Length: *(total class minutes required to complete)*

**120 minutes in class**

- 15 minutes of Class 1 (end)
- 90 minutes of Class 2
- 15 minutes of Class 3 (beginning)

Summary:

Through the creation of community websites, the students will instruct their classmates and invited friends, families and peers in the psychological and neurological aspects of sensation and the major senses. Each group of 4-6 students will collaborate by researching a specific sense and create a webpage that will serve as a part of the overall group's site. They will conduct original research as well as define, explain and incorporate all major AP Psychology terms that relate to their topic. All citations will be collected and organized by the group and then placed on a citations page, so that their original research will be showcased. Upon completion, these sites will be shared with students from other classes, family members, faculty and friends outside of Glen Allen. The students will be assessed both as a group and individually using a rubric given to them at the onset of the assignment. The webpages will remain live and can be used as a review throughout the year and before mid-terms and the AP Psychology test.

Essential questions:

- **How does your own interpretation of sensory information affect how you (specifically) live your life?**
- **What methods will be most effective in helping your site visitors understand your topic?**
- **How is each type of sensory information taken into the brain and interpreted by it?**
- **How might people suffering from various sensory disorders perceive their world without a certain sense?**

Lesson Development:

### **Task 1- Anticipatory Set (Group Creation, Task Assignment and Research Questions):**

Following an AP Psychology lesson explaining the major senses and their function (vision, smell, taste, hearing and the body senses) the students will be asked to form their own teams that will collaborate to create an instructional website explaining all of

sensation. They will then organize their roles, divide the senses between themselves and record each member's responsibilities. For homework they will create 3 original research questions that relate to their sense. These research questions will be used to help the students synthesize and assemble original information about one of the senses. This information will be used to create a teaching webpage for both Psychology students and non-student visitors.

**Teacher:** Models several possibilities for group collaboration including a google document, the google site itself and e-mail. Models several possible research questions (Example- What does the world look like to someone who is colorblind? Is it possible for deaf patients to regain hearing through surgery?).

**Student:** Establish and assign tasks as a group including all major senses and an overall editor of the homepage and research page. Construct questions outside of class that will guide research and stem from individual curiosity and inquiry.

### **Task 2- Beginning of Collaboration Day (Evaluation and Sharing of Research Questions)-**

The students will begin class by exchanging their research questions with a member of their group. They will collaborate with each other, and informally assess the research questions. Ideas will be shared on possible avenues of research based on these questions or follow up questions that could be added. Then all students will import two of their research questions into a google form linked into schoolspace ([linked HERE](#)) facilitated by the instructor. The instructor then displays the form on the Promethean board and facilitates a student-lead discussion that highlights strong research questions and makes constructive suggestions for improvement.

**Teacher:** Facilitates while students are communicating with one another about their research questions. Creates the google form and displays it on the board. Helps redirect student critique when needed in small groups and as a class.

**Student:** Works with a partner to evaluate research questions informally. Synthesizes new questions and follow up questions with partner to help with research. Analyzes research questions created by peers.

### **Task 3- During Collaboration Day- Independent Research**

The teacher then shares the website rubric with the groups as well as the project directions. Students are given the opportunity to review the rubric and directions as a group then question the teacher before research begins. The students are given directions in creating a google site and adding each other as editors. The member in charge of this task has already been determined by the group. Each student will first use online databases and reliable sites to answer their research questions. They will also use AP Psychology Textbooks, curricula and notes to ensure that all AP material- terms and

concepts- will be addressed in their teaching site. Research will be conducted independently, but students will be allowed to use each other as collaborators as well as the instructor/facilitator. The rubric dictates several terms from the AP course that must be included on the site in some fashion; it also requires a minimum of 2 sources cited in APA format.

**Teacher:** Facilitates while students are researching and models correct citation and research practices at the beginning of this stage. Includes all requirements on the rubric. Redirects students using unreliable sites and encourages group evaluation and collaboration throughout the planning stages. Supports students as they conduct original research direct by their own questioning and critical thinking.

**Student:** Uses digital tools to solve his/her research questions. Selects the most appropriate resources for research. Adapts and synthesizes research with new findings.

#### **Task 4- During Collaboration Day and Outside of Class- Group Creation of Pages**

After the research is complete, the students will map out their site. They will be given the freedom to incorporate any digital elements into their website that may assist in the instruction of their visitors. After 45 minutes of research time, the instructor will model several strategies in doing this- including ways to increase creativity, strategic risk taking and web layout. The students will be shown how to use google sites to link videos, audio clips and create tables to help the overall design and functionality of their pages. They will then be encouraged to include as many creative or innovative elements as possible in on their page and in the site as a whole (as outlined in the rubric under “Creativity and Critical Thinking”). Students will be allowed to edit one another and collaborate online and outside of class using the google site until the beginning of the following class period.

**Teacher:** Models problem solving strategies, digital tools, site design and the application of critical thinking to create original work. Supports student mastery of digital tools that can be incorporated into the site. Facilitates problem solving during site design and the incorporation of creative elements.

**Student:** Creates original work in the form of a teaching webpage. Chooses teaching strategies and instructional elements and approaches to best convey information gathered during research. Creatively displays findings based on research questions and psychology curricula

#### **Task 5- Beginning of Assessment Day- Sharing and Assessment**

At the beginning of the next lesson, student will have the site finalized. The site manager will then invite members of another group to view the google site before it goes live.

These viewers will be able to comment of various pages, and, using the rubric, provide feedback to their classmates. Using this feedback, the students will then be given 10 minutes to finalize their site, publish it, and make it accessible to all GAHS students and selected guests. These guests are invited by entering e-mails into the google site and will be allowed access to the site. The instructor will encourage students to invite friends and family to visit the sites and learn about sensation. Finally, the instructor will assess all work using the rubric. Students will be assessed as a group and as individuals receiving a combined assessment score.

**Teacher:** Models constructive criticism of a page before student attempts. Facilitates communication through the google site. Formatively assesses original webpages based on rubrics given at the beginning of the assignment.

**Student:** Assesses peer work through the rubric. Provides original feedback and critique of peer work. Uses peer evaluation to improve and further develop site elements, innovations, functionality and teaching elements.



#### PROJECT DIRECTIONS:

### **Google Sites Sensation Lesson Mr. Baker's AP Psychology Class**

**Overview:** Next class you will be working together to create a Google Site explaining the major sensations we have examined in this course (smell/taste, vision, hearing, and touch- pain, kinesthesia, and vestibular sense). You will work in groups of five to create an interactive website using Google Sites that instructs visitors on the functioning of these senses and their influence on behavior.

**Group:** Type the name, e-mail addresses or other contact information for the people in your group below.

- 1.
- 2.
- 3.
- 4.
- 5.

#### **Create the Site:**

1. **One person in the group- follow these directions**
2. **Go to [www.google.com](http://www.google.com)**
3. **Click the dropdown menu at the top that reads MORE and select SITES**
4. **Log in using a google account.**
  - a. **Your username is- hcps-(bakerad)@henrico.k12.va.us**
  - b. **Your password is- hcps(4digitnumber)**
5. **Click CREATE NEW SITE on the top of the page.**
6. **Name Your Site- come up with a name for your website that incorporates something about sensation.**
7. **Choose a theme (do not choose a template)**

8. Under MORE OPTIONS click “let anyone in the world view this site”
9. Then Click “Create Site”
10. At the top of the webpage select MANAGE SITE
11. When the Menu drops down select Sharing and Permissions. Add the remainder of your group using their google account names under the Add people link. Make sure everyone has the ability to edit.
12. Go back to your site page. Bookmark it. Then create a page for each of your senses and assign one group member to each page.
  - a. Main Page-
  - b. Smell/Taste-
  - c. Touch/Body Senses-
  - d. Vision
  - e. Hearing
  - f. Citations- ALL GROUP
13. One person in your group will be responsible for each page. Each page will outline key vocabulary surrounding the subject, include at least 2 pictures and will be written in your own words. You must also find information from two outside sources.
  - a. Tip- a great resource would be to go to the GAHS library page and use OneSearch. The best resource on OneSearch for this type of information is

[Gale Health & Wellness Resource Center](#)

This resource answers the need for a fully integrated, ever-growing electronic resource center for all levels of health research. Rely on the Health & Wellness Resource Center for instant access to carefully compiled medical reference and periodical materials that your users can trust.

## **Individual Page Directions**

- 1. Main Page- Create 2-3 research questions you will need to answer to effectively teach the overall concept of sensation to your visitors. These should be answered when creating your site. Include the terms absolute threshold, signal detection theory, difference threshold, Weber's law and sensory adaptation. You must include at least 2 pictures. Use your textbook and two outside sources as a reference.**
- 2. Smell/Taste- Create 2-3 research questions you will need to answer to effectively teach the smell and taste systems to your site visitors. Include the terms papillae, taste buds, gustatory, olfactory, olfactory bulb, chemical senses, and anosmia. You must include at least 2 pictures. Use your textbook and two outside sources as a reference.**
- 3. Vision- Create 2-3 research questions you will need to answer to effectively teach the vision system to your site visitors. Include the terms nearsighted, farsighted, blind spot, parallel processing and the two color theories. You must include at least 2 pictures. Use your textbook and two outside sources as a reference.**
- 4. Create 2-3 research questions you will need to answer to effectively teach the hearing system to your site visitors. Include the terms frequency, pitch, cochlea, place and frequency theory, and two theories on hearing loss. You must include at least 2 pictures. Use your textbook and two outside sources as a reference.**
- 5. Create 2-3 research questions you will need to answer to effectively teach the touch and body sensation systems to your site visitors. Include the terms the four skin senses, gate-control theory, Lamaze, kinethesis and vestibular sense. You must include at least 2 pictures. Use your textbook and two outside sources as a reference.**

## RUBRIC:

# Sensation Website Project Rubric– 50 Points Total Final Draft to be saved by Thursday 10/20

Remember– Each page should effectively teach your assigned topic and should include two pictures and two APA cited sources on the groups works cited page as well as all key terms. You are encouraged to include other media or web elements in your page (sound files, video files, links etc) to make your instruction more effective.

	10–9 Points	8–7 Points	6–5 Points	4–3 Points	2–0 Points
Group Site Elements	All Pages are included with all or the majority of the requirements met per page as well as a citations page.	5 pages are included with all or the majority of the requirements met per page as well as a citations page.	4 pages are included with all or the majority of the requirements met per page as well as a citations page.	3 pages are included with all or the majority of the requirements met per page as well as a citations page.	2 or fewer pages are included with all or the majority of the requirements met per page as well as a citations page.
Group Site Effectiveness	The site as a whole appears unified, creative and effectively teaches site visitors about sensation and the senses.	Most pages on the site seem unified, creative and effectively teach site visitors about sensation and the senses.	Half the pages on the site seem unified, creative and effectively teach site visitors about sensation and the senses, while other pages do not.	Some of the pages on the site seem unified, creative and effectively teach site visitors about sensation and the senses, while most pages do not.	The site as a whole is neither unified nor creative, nor does it effectively teach site visitors about sensation and the senses.



Individual Page Elements	The individual student's page correctly uses all terms while incorporating at least two pictures and two sources.	The individual student's page correctly uses all terms while incorporating at least two pictures but does not cite his or her sources..	The individual student's page correctly uses most terms while incorporating at least 1/2 pictures and cites two sources.	The individual student's page correctly uses most terms while incorporating at least 1/2 pictures but cites no sources.	The individual student's page correctly uses 0-2 terms while incorporating at least 0-1 pictures and incorrectly cites sources.
Individual Page Effectiveness	The individual student's page effectively teaches the concepts assigned to it through personal examples, research questions and other media.	The individual student's page effectively teaches the concepts assigned but does not fully incorporate personal examples, research questions or other media.	The individual student's page effectively teaches some of the concepts assigned but does not provide the site visitors with a strong learning experience.	The individual student's page does not effectively teach the concepts assigned but uses media to enhance the presentation.	The individual student's page does not effectively teach the concepts assigned and incorporates no extra elements to assist instruction.

## STUDENT EXAMPLES

<https://sites.google.com/a/henrico.k12.va.us/sensation-station/>

<https://sites.google.com/a/henrico.k12.va.us/sensationdomination/>

### TIP Chart Assessment:

Research and Information Fluency: **Ideal/Target-** the instructor creates and facilitates an environment in which students use original research questions as well as AP curricula that will guide their own research on sensation. Strategies of research are modeled and students select their own digital tools and sources. This information is being displayed by students with digital tools that allow peers and non-students to interact with the research in an authentic manner.

Communication and Collaboration: **Ideal/Target-** the instructor designs a lesson and creates an environment that clearly promotes collaboration within and beyond the classroom through the use of the google site. No direct supervision is needed once the collaborative methods are established and modeled and this collaboration is facilitated by the instructor throughout. The students choose their own groups for this assignment, and select tools that allow them to collaborate with peers and others outside of school.

Critical Thinking and Problem Solving: **Approaching-** The instructor designs instruction that promotes solutions to authentic tasks in this lesson through the goal of creating an effective teaching site. The students are supported and challenged in critical thinking by establishing original research questions based on their own interests and inquires. The students themselves apply many digital tools within the website to achieve this goal and solve the problem, but they are not directly assessed on their ability to creatively think, nor do they reflect on their roles afterwards.

Creativity and Innovation: **Target-** The instructor models creativity and craftsmanship by displaying his or her own webpages and designs. The opportunities to collaborate and create are prevalent throughout the assignment through the individual and group elements of the page and site creation. The creativity is also assessed through the rubric, and students all create meaningful and original work that will be used as a teaching tool for others and as review form themselves later in the course. The use their self-generated knowledge to create these products and are given the freedom to modify, manipulate or link the site to anything that may help them achieve their goal of quality instruction.