**Evaluation Document**

**Lesson 1**

* For the start of the lesson, I have students make a KWL chart and start filling out the K part to write down what they know, and write a couple of questions in the W column. After this I will have students share with their table partner and choose a couple of groups share with the class what they already know.
* At the end of the lesson, I will have them write two things in the L column. We will be adding to this document throughout the unit.
* I will do a reflection about things that would make the lesson better.
* At the beginning of lesson 2, I will give my students a quiz on neuron structures and functions, to see how well they mastered the objective in Lesson 1. (quiz is posted on development document, lesson 2)

**Lesson 2**

* Quick Quiz: Label the parts of a neuron
* Thumbs-up/ thumbs-down to check for understanding to review notes from last time (see development document lesson #2)
* Lab processing: Why do neurologists do these tests if a patient comes in complaining of headaches, or after a head injury?

**Lesson 3**

* Evaluate students understanding of nerve transmission by having students work with their table partner and put in sequence the events of nerve transmission. "Stick pick" students to explain it to the class by drawing it on the board. Clear up any misunderstandings.
* Have students fill in the “L” part of their KWL chart with things they have learned since their first entry, have them write down questions they have and discuss these as a class.

**Lesson 4**

* Students take a quick quiz about the brain parts and what they do.
* During lab processing, students will discuss reaction time and how the body learns reactions and what a reflex is.

**Lesson 5**

* SMART quiz on the content covered so far during this unit.
* Lab processing – discuss responses of students to the skin testing. Talk about skin sensitivity and distance of touch receptors. Review the types of touch receptors.

**End of Lesson:**

For each lesson I will have my students use “stick-it”. I will have the lesson objectives posted, and students will stick up a paper writing one thing they learned and one question they have. Also I will have them write one thing they liked and one thing they disliked about the lesson. They have to write their names on these and I will quickly go through them after each lesson and they will receive completion points (two points) for their participation.

I will also write a reflection about the lesson and use that to tweak lessons if necessary.

This will help me to make decisions to make my lessons better.

**EVALUATION LESSON 1**

I taught the lesson in my eighth period class, because they are my most difficult class. I figured if the lesson worked well for them that I would be able to tweak it and it would work with any of my other classes.

**The objective of my first lesson was: learn the structures and functions of nerve cells (neurons).**

To start the lesson, students filled out a KWL chart that we discussed the things they already knew about the nervous system.

At the end of the lesson, I gave an 8-point quiz where students had to write the names of the parts of a neuron that I had numbered. They had to answer three multiple-choice questions about what the functions were of the different parts of the neuron.

In the class, 0.63 of my students got 100% of the questions correct; 0.23 of my students got 88%; 0.7 of my students got 62%; and 0.7 got 50%. Based on the quiz performance, I believe that the objective was met by 0.86 of my class and the other 0.14 would need some remediation to help them to learn the parts, and functions of the neuron.

Before the students left class, I had them write one thing they liked and one thing they didn’t like about the lesson. This was the feedback I received.

(see next page)

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| --- | --- |
| Things I liked | Things I didn’t like |
| It was not boring | It was a lesson |
| I did well on the quiz | That we got homework |
| That the notes were short | I didn’t like being timed |
| Learning about the nervous system | Taking a quiz |
| I found it very interesting | Missing a question on the quiz |
| The ping pong ball activity | nothing |
| Demonstration with the ping pong balls | Doing a worksheet |
| I liked that it was quick and to the point | I don’t like doing KWLs |
| I got my work done | I didn’t do well on the quiz |
| I liked that you had them use goggles and throw ping pong balls | I didn’t like the quiz |
| I really liked the demonstration | I didn’t like the notes |
| The way it was fun | That it was a demonstration and only a couple of students got to try the glasses |
| Ping pong ball throwing | Taking notes |
| That ping pong ball example | I don’t like work |
| Experiment | quiz |
| I liked the game | I didn’t like the book work |
| I liked taking the quiz right after the lesson | I didn’t like the speed of it |
| I liked that you didn’t hurry through the lesson | I didn’t like the quiz at the end |
| I liked the subject | I didn’t like how we had a quiz when we barely learned it |
| I now know what a neuron is | The assignment |
| That we learned about the nervous system fast | Didn’t fully grasp it |
| The game | The bookwork |
| The game | The quiz |
| Ping pong stuff | Had to take notes but whatever |
| The activity tied into the lesson | nothing |
| I likes learning about what a neuron looked like and how it functions | nothing |
| I liked the lesson in general, the nervous system is very interesting | I don’t like doing KWLs |
| I liked how you structured the class and I feel like I actually learned the material | I don’t know what I didn’t like |
| I liked taking a small quiz about what we learned that day rather than taking a big quiz covering a lot of stuff | I didn’t like doing the worksheet |
| How you planned things | No answer |
| Watching Kenna and Bret throw ping pong balls | notes |

**Evaluation – Facilitator Perspective (my reflection)**

I think one of the hardest things about teaching this lesson, was that I had to teach it out of context. I thought I would be done with the unit on Evolution and ready to start teaching the human body systems, but wasn’t. Although I explained this to the students at the beginning of class, students were still confused and it threw them off.

I had students fill in the K part of the KWL chart and then had them talk to their table partners about what they knew about the nervous system. I used stick picks at the end of the partner discussion to call and a few groups to tell the class what they knew about he nervous system. This worked well.

Since the brain and spinal cord were mentioned as what some students knew about the nervous system, we talked as a class briefly about learning. We talked about how neurons form and reform connections in the brain during learning and that those connections are important in our learning and the function of the brain.

I used Ping-Pong balls for my diopter lens demonstration. I am going to get some modeling clay to throw at the target, because the clay won’t bounce. Chasing the Ping-Pong balls around was a bit of a distraction. It made it so that this part of the lesson went overtime. I will definitely get some modeling clay and mold into balls before trying this activity with my other classes.

I liked the demonstration using the diopter lenses because it becomes very clear to the students, the brain wiring of the test subjects ( stick-pick students ) had changed in a very short time because when they took the goggles off, they couldn’t hit the target for a few times until their brains readjusted.

I had the students take notes and identify the parts of the neuron. This is generally done with each unit, I usually go through and make any changes or edits that I need to before I present the notes. Students take notes using Cornell method. We have used this since the beginning of the year so there is a routine way to take them. Students know that my notes are posted on my Weebly so they can access them if they are absent or miss part(s) of the notes. I have used note outlines in the past, but found that students would not learn the material. Since I started using Cornell notes they have done better. I wish there were a way to give notes so that I didn’t have to go as slow as the slowest writer, half of my students end up having to wait for the others to catch up.

The technology worked fine. I used the projection system to deliver the notes. I have a remote that allows me to change slides from anywhere in the classroom. I wander around the classroom, while delivering the notes and explain things, as I wander. This helps me to be aware of students who are off task without interrupting the flow of the classroom.

My room arrangement is fine, but the classroom itself is too small. The aisles are very narrow. I have 18 tables with two students at a table. All the tables in the rows at the side of the classroom, are facing in and those in the middle all face forward.( see map on end page). There is really no other way to fit 36 students in to my class. It is a tough room arrangement leaving students little or no personal space. It leaves me tripping over students personal gear.

When we do labs, I can only have half of my student at a time do the lab. We shove all the tables to the center and students work on the counters around the perimeter of the classroom to do the lab, where the water, sinks, plugs and gas are located. The other half of the class does a book assignment or other such activity and we either switch half way through the period, or if it is a longer lab, the other half of the class does the lab the next time we meet.

In the future I may try to find some way for students to drop off book bags in a central location so they aren’t in the aisles or on the tables. Humph… something to think about.

Changes I would make to this unit, I would teach it in context. I would have a couple of more volunteers to use the diopter glasses. I would leave more time at the end for the quiz and the lesson evaluation so that students would put more thoughtful answers, and wouldn’t feel so rushed. I will definitely buy some modeling clay.

Using the ADDIE Model

I liked the ADDIE mode for its thoroughness. If a teacher consistently uses the ADDIE model in course design, she/he has a greater chance to direct student learning and be assured that learning has taken place.

I thought the ADDIE model was very time consuming, but I think like anything, the more it is used the more proficient the teacher will become in using this model, and the less time it will take to design instruction.

Filing cabinets

Cupboards AV materials

Video screen and white board

Teacher desk

Front of classroom – Demo table

AV cart

Doc. camera

counter

counter

counter