

## Highlighting the Neuron Lesson – Annotation Guide and Discussion Questions – **Answers**

*Note: This guide has been modified from: Feldman, Kevin. “Improving Adolescent Literacy via a School-wide Focus in Light of the Common Core State Standards.” East Lansing Professional Development Session. East Lansing. 30 Aug, 2012. Lecture.*

### **Directions: Annotation Explanation**

As you are reading the article, use the markings below to help you organize your note taking.

 Underline main ideas

 Circle important vocabulary words (maximum of 3)

 Triangle around words you're unsure of

### **Directions: Questions**

Once you have finished reading, answer the questions below using evidence from the text.

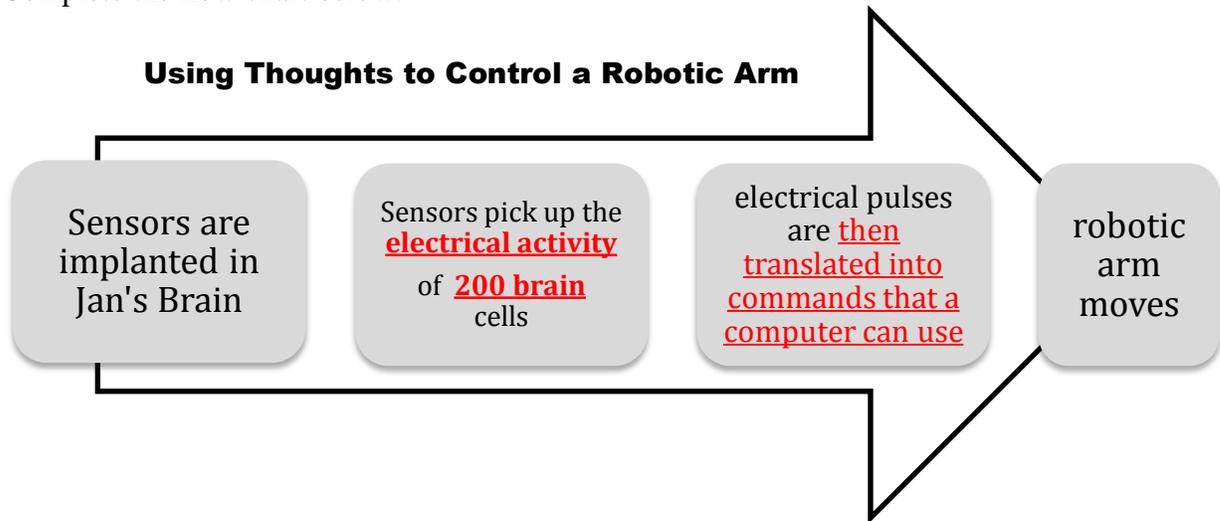
**Example Question:** *At what age was Jan when she was able to eat a chocolate bar on her own for the first time in many years?*

**Example Answer:** *According to the beginning of the BBC News Health report, Jan Scheuermann was 53 years when she was able to use her thoughts to control a robotic arm in order to eat a chocolate bar.*

1. Why did Jan use a robotic arm to eat a chocolate bar?

**According to the BBC article, Jan was paralysed from the neck down and was unable to use her arms and legs. This is why she used a robotic arm to eat a chocolate bar.**

2. Complete the flow chart below:



3. Are there any other examples of Jan's experience? If yes, who was affected by a similar event, and why did this person require the use of a robotic arm?

According to the BBC article, Cathy Hutchinson was able to use similar technology to "serve herself a drink" after suffering a stroke 15 years ago

4. According to the author, these robotic arms are controlled by "thoughts." Why is the author able to use the term thoughts?

The author is able to use the term *thoughts* because thoughts are electrical impulses. As stated in the article, thoughts, or electrical impulses, can be picked up on sensors implanted on Jan's brain. These sensors translated those impulses into commands that a computer could use to move the robotic arm.

### **BONUS QUESTION**

What is your opinion of this form of technology? [Questions you could answer to guide your thinking: Do you support the use of this technology? Why or why not? Are the future benefits of this technology worth the while? Why or why not?]

### **SAMPLE ANSWERS**

I think this technology is great! I support it because I think it will help a lot of people who have injuries to their nervous system. For example, if a person has damage to the spinal cord that causes them to not be able to move their legs, then this type of technology can help to transport the missed messages to the legs.

The benefits of this technology are definitely worthwhile because this technology could help a lot of people.