Student Discussion Worksheet

Directions: Read the introduction of the online *Science News* article "Three visions of the future, inspired by neuroscience's past and present," and choose one of the vignettes to read. Answer the first two sets of questions alone. Then, partner with a classmate who chose a different vignette and discuss your answers to the first two question sets before answering the third question set together. A version of the story, "Our brains, our futures," appears in the March 13, 2021 issue of *Science News.*

For additional information about ethical considerations involving neurotechnology, refer to the online *Science News* article "Can privacy coexist with technology that read and changes brain activity?" A version of the story "Inside your head," appears in the February 13, 2021 issue of *Science News.*

Defining neuroscience

1. What is neuroscience and when did it become generally recognized as a science?

2. What is neurotechnology? Give an example from the article.

3. What role do you think neurotechnology plays in the progress of neuroscience as a field?

Thinking critically

1. Can you think of a movie, television show or book that exemplifies a real or fictional advance in neuroscience? Discuss what neurotechnology was used, and talk about how its use made you feel. Were there aspects of the technology that seemed exciting or interesting? What about scary or intimidating?

2. Based on currently available neurotechnology and the vignettes in the article that highlight possible future advances, how likely do you think it is that your example could become a reality if it isn't already? Explain.

3. What are some current or potential future benefits of neurotechnology, according to the *Science News* article? List some benefits of your neurotechnology example.

4. What are the main ethical concerns about current and future advances in neurotechnology, according to the *Science News* article? Does your neurotechnology example raise any ethical concerns? Explain.

Moving forward

1. What role should the public have in shaping how neurotechnology is created and used?

2. Brainstorm one possible solution for handling the privacy violations that might arise with advancements of neurotechnology in the future.

3. What would you like to tell the scientists working in this field? Send your thoughts to SNHS@societyforscience.org.