PLTW Biomedical Science

Activity 1.3.3 Cochlear Implant Debate

Introduction

Imagine you are out to dinner with just a few of your closest friends celebrating your best friend's birthday. The restaurant is very busy and lively. The conversation is quick and animated, and you are having a difficult time reading lips and cannot follow the conversation. You are deaf. You feel frustrated and angry because you do not want to ruin the festive mood and tell your friends that you cannot understand what they are saying. A couple of friends of yours have elected to have cochlear implants and are able to hear things that they never thought they would be able to hear. But what if the cochlear implant does not work well for you? What if you have the surgery and still cannot understand what people are saying? What if having a cochlear implant shuns you from the deaf society from which you have always been a part?

John and Juanita, James Smith's brother and sister-in-law, are both researchers at the same local university and have been married for six years. Juanita is deaf and uses no assistive hearing technology. Their only child, Samantha, is eight months old, and has been diagnosed with congenital deafness. The family pediatrician has asked John and Juanita to consider having Samantha undergo cochlear implant surgery as soon as possible. In this activity you will investigate both sides of the cochlear implant debate. You will use this information to write letters from the perspective of an adult deaf person explaining the reasons a person may or may not want to have this procedure.

Equipment

- Computer with Internet access
- Laboratory journal

Procedure

- Read the following article about the cochlear implant debate. Take notes on the major points presented in your laboratory journal.
 - Jane E. Brody For Some Who Lost Their Hearing, Implants Help http://www.nytimes.com/2006/10/03/health/03brody.html?_r=2& pagewanted=2&sq=cochlear%20implant%20debate&st=cse&sc p=6
- 2. Use the following websites as well as other reliable resources to research both sides of the cochlear implant debate. Take notes in your laboratory journal.
 - Aviva Weinberg Pediatric Cochlear Implants: The Great Debate.
 The article begins on page 29.
 http://issuu.com/pennbioethicsjournal/docs/v1i1_42561969e6cc
 2a/1?e=14074281/10138011.

- National Association of the Deaf Cochlear Implants: NAD Position Statement http://www.nad.org/issues/technology/assistivelistening/cochlear-implants
- 3. Write a one or two paragraph letter from the perspective of an adult deaf person who wants to explain to his or her friends and family why he or she is choosing to get a cochlear implant.
- 4. Write a one or two paragraph letter from the perspective of an adult deaf person who wants to explain to his or her friends and family why he or she is choosing not to get a cochlear implant.
- 5. Share your letters with your classmates.
- 6. Discuss the pros and cons of cochlear implants with your classmates.
- 7. Answer the Conclusion questions.

C

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1.	Why are cochlear implants controversial?
2.	How effective are cochlear implants in restoring hearing? Does the implant work the same way for all people?
3.	How does the use of assistive biomedical technology in children differ from the use of assistive biomedical technology in adults?

4.	If you suddenly went deaf, would you elect to get a cochlear implant? Explain your answer.
5.	Does the biomedical science community have the right or responsibility to cure all human impairments?
6.	Should John and Juanita give Samantha a cochlear implant? Explain your reasons for your decision.