

9 SCIENCE PHYSICS HEARING ASSIGNMENT 2015

Name: _____

Form: _____



Teacher: _____

Due date: _____

ANSWER KEY

Aim: This assignment will allow you to find out about education available for deaf students and how hearing loss occurs.

IMPORTANT INFORMATION

Plagiarism

You must write in your own words not copy sentences word for word from another student or another source.

Plagiarising = instant zero on assignment and you will have to re-do it.

Assessment policy

Have sick note/legitimate reason from parent = new negotiated due date.

Assignment not submitted on due date and no sick note from parents = -20% mark

Assignment not submitted on new negotiated due date = -40% mark

- + Letter home to parents.

- + Must attend academic completion to complete assignment.

If you are not at school the day this assignment is due, please email it to me by 4pm.

s.cerny@aranmore.wa.edu.au

ANSWER KEY

No half marks

Part one: answer the following questions based on the interview above.

1. **Explain** the main difference between a cochlear implant and a hearing aid.
(Minimum of two sentences).

(2 marks)

- Cochlear implant amplifies sound and (1)
translates it into electrical code.

- Hearing aid - only amplifies sound (1)

3. **Explain** why not everyone is able to receive cochlear implants.
(Minimum of two sentences).

(2 marks)

Any 1.

- Expensive

- No access to medical care

- Not everyone has the hearing/auditory nerve

4. The Kendell Demonstration Elementary School is bilingual. **State** what this means.

(1 mark)

Two languages are taught, sign language
and English.

5. The Kendell Demonstration Elementary School offers ASL. **State** what the abbreviation ASL stands for. (1 mark)

American Sign Language

7. In 1975 the Education for All Handicapped Children Act was passed in the USA. **Describe** what this law meant.
(Minimum of two sentences).

(2 marks)

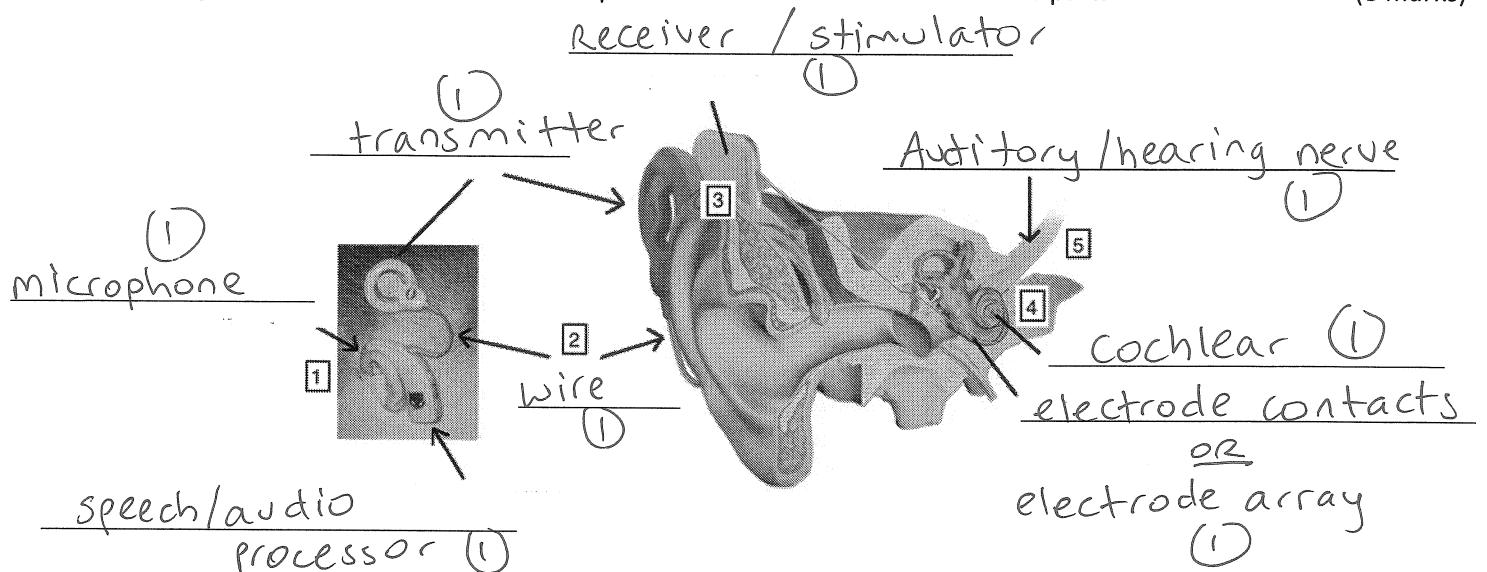
- All schools in USA must accommodate for all
children with disabilities. (1)

- Children should be educated with
non-disabled peers (1)

Part two: how a cochlea implant works

1. The diagram below shows the cochlea implant fitted to a human ear. Label the parts.

(8 marks)



2. Each number represents a step that occurs in the process of hearing using a cochlea implant. Describe what is happening at each step. (Minimum 1 sentence for each step).

(5 marks)

1. Sound is received by the microphone. and the speech processor selects and arranges the sound. (1)
2. The signals are transmitted from the speech processor to the receiver / stimulator. (1)
3. The receiver / stimulator receives the signals and converts them into electrical impulses. (1)
4. The electrode array picks up electrical signals and stimulates nerve fibres in the cochlear. (1)

5. Nerve impulses / electrical signals are sent to the brain through the auditory nerve. (1)

Part three: answer the following questions using the internet or books as research.

1. There are two general types of hearing loss; congenital or acquired. (1 mark)

a) State when an acquired hearing loss occur in a person.

After birth / At any time in one's life

b) State when a congenital hearing loss occur in a person. (1 mark)

Present at birth

2. State the name of the device or piece of equipment that is used to measure loudness. (1 mark)

Decibel meter

3. State the unit of measurement that loudness is measured in. (Write the name and symbol) (1 mark)

Decibel dB needs to have both!
no half marks

4. Explain what hair cells are, where they are located and how they are damaged. (Minimum of two sentences). (3 marks)

- sensory receptors (1)

- located in inner ear, semicircular canals (1)

& vesicle

- Damaged when loud sound is detected or ongoing loud sound occurs.

Hairs become broken &/or bent

Part four: history

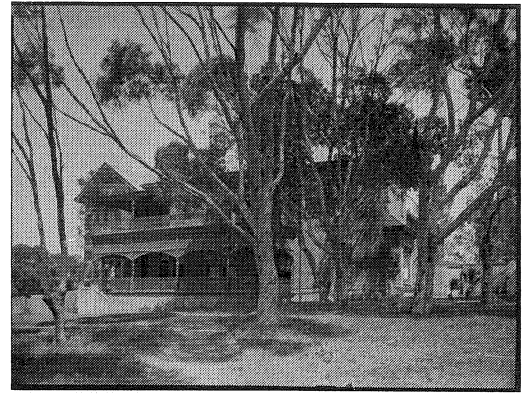
1. The WA School for Deaf Children was established in East Perth and moved to Cottesloe in 1900. It was a residential school (boarding school) that admitted children of all ages.

a) What year was the school established? 1896 (1 mark)

b) What year did the residential section of the school close?

2001

(1 mark)



State Library of Western Australia

2. Australia has a law (similar to the US Education for All Handicapped Children Act) called the Commonwealth Disability Discrimination Act. **State** what year was this law passed (put in place). (1 mark)

1992

3. **Explain** the purpose of the Commonwealth Disability Discrimination Act. Explain what it means for mainstream schools and parents of children with disabilities. (Minimum of three sentences). (3 marks)

- Let people with disabilities learn social skills.

- School must accommodate for disabled children - will cost money, require teacher training, infrastructure.

- Parents can have option to integrate their child into mainstream school.

OR other points.

- 1 mark for each point