Device May Help Blind People See

Inventors in Belgium have created a **device**¹ that might enable thousands of blind people to see. The invention includes a small video camera mounted on eyeglasses.

Blindness can occur for many different reasons. One reason is damage to the **retina**, the membrane that lines the inner eyeball. The retina picks up visual messages in the form of light. Then it sends those messages to the brain through the **optic nerve**. If a person's retina is not working, messages are not sent to the brain.

The Belgian scientists created a tiny electronic device that takes over for a damaged retina. They **implant**² the device inside the blind person's head, just behind the eye. The patient wears a pair of glasses with a little video camera mounted on them. The camera takes pictures and sends the images to the implant in the head. Then the implant electronically **stimulates**³ the optic nerve, sending the visual images to the brain. The scientists have tested the device in two patients. The results have been promising.

³ **stimulates:** makes active or more active



¹ **device:** a piece of equipment to serve a special purpose

² **implant:** to insert in living tissue

CONCEPTS OF COMPREHENSION: MAIN IDEA 4th GRADE UNIT	
Reading Passage	

stion Sheet	
ne:	Date:
	"Device May Help Blind People See" Questions
 a b c	main idea of this passage is many people are blind from a damaged retina. scientists invented a device to help blind people see. scientists in Belgium are concerned about the visually impaired scientists have tested their device on two patients.
 a b c	ch of the following does <i>not</i> support the main idea? The scientists are in Belgium. The device includes special glasses for the patient to wear. The device sends messages to the optic nerve. Scientists need to implant a device behind the patient's eye.
 a b c	ore the device stimulates the optic nerve, . a visual message goes to the brain the person is aware of what he or she is seeing a camera is mounted on glasses all of the above.
b C	retina . sends message to the brain picks up visual information as light determines what color eyes you have protects the eye.
5. List	a detail and explain how it supports the main idea.
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		OF COMPREHENSION: MAIN IDEA 4th GRADE UNIT
Questio	n S	heet
Name:		Date:
		"Device May Help Blind People See" Answer Sheet
<u>MI</u>	1.	The main idea of this passage is a. many people are blind from a damaged retina. b. scientists invented a device to help blind people see. c. scientists in Belgium are concerned about the visually impaired. d. scientists have tested their device on two patients.
MI	2.	 Which of the following does not necessarily support the main idea? a. The scientists are in Belgium. b. The device includes special glasses for the patient to wear. c. The device sends messages to the optic nerve. d. Scientists need to implant a device behind the patient's eye.
Seq.	3.	Before the device stimulates the optic nerve, a. a visual message goes to the brain. b. the person is aware of what he or she is seeing. c. a camera is mounted on glasses. d. all of the above.
<u>El</u>	4.	The retina a. sends message to the brain. b. picks up visual information as light. c. determines what color eyes you have. d. protects the eye.
<u>MI</u> _	5.	List a detail and explain how it supports the main idea.
		Answers will vary. Students should describe how a detail from the

Answers will vary. Students should describe how a detail from the passage supports the main idea.

Suggested Additional Vocabulary: enable, membrane