

Brain Eye

GCSE Biology · Written to the shared content for AQA, Edexcel and OCR

Name _____ Class _____ Date _____

1. Worked example

Give the function of the cerebral cortex, cerebellum and medulla. (3 marks)

Step 1 · Cerebral cortex

Consciousness, intelligence, memory and language.

Step 2 · Cerebellum

Coordination of muscular activity (balance, smooth movement).

Step 3 · Medulla

Unconscious activities such rate and breathing.

Answer: Cortex: higher thinking; cerebellum: coordination; medulla: unconscious control

Check: The brain contains billions of interconnected neurones.

2. Now try one with the steps

Describe how the eye focuses on a near object. (3 marks)

Step 1 · Muscles

Step 2 · Ligaments

Step 3 · Lens

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. Name the part of the brain responsible for memory and language. [1]

2. Name the part of the brain that controls heart rate and breathing. [1]

3. State the function of the cerebellum. [1]

4. Name the part of the eye that contains light receptors. [1]
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5. Name the two types of light receptor cell in the retina. [2]
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6. Give one method scientists use to find out what different brain regions do. [1]
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7. Describe how the eye focuses on a distant object. [3]
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8. Explain why the pupil gets smaller in bright light. [2]
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9. Which type of lens corrects hyperopia (long-sightedness)? [1]
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10. In a class of 30 students, 9 are short-sighted. Calculate the percentage. [1]
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11. Give two treatments for vision defects other than glasses. [2]
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12. Explain why someone with damage to their cerebellum may struggle to walk in a straight line. [2]
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13. Explain why people find it harder to see colour in dim light. [2]
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14. Evaluate laser eye surgery compared with glasses treatment for myopia.

[4]

4. Before you hand it in

"For near objects the ciliary muscles relax."

NEAR: ciliary muscles CONTRACT, ligaments slacken, lens thick. FAR: muscles relax, ligaments tight, lens thin.

"The iris lets light in."

Light enters through the PUPIL; the iris controls its size.

"Myopia is corrected with a convex lens."

Myopia (short sight): concave lens. Hyperopia (long sight): convex lens.