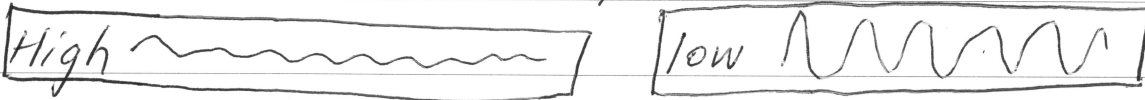


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(a) Animal	Structure.
Insect	located either on abdomen or legs,
Fish	the body picks up the vibration from the water.
Mammal.	Ears - outer ear funnels sound into middle ear, hair cells pick up vibration + send a message to the brain.

(b) The vocal folds are different for ~~the~~^a person when singing high pitch and low pitch. This is because high pitch travels faster than low pitch.



this means that the vocal folds ~~for~~ have to be altered to create the differences. For high pitched vocal folds are less, so the sound can travel faster, and for low pitch, the folds are more so the sound is slowed.

(c) i// ~~the~~ retina.

ii// the structure of cones varies depending on their location in the retina as more needs to be where the focus of the light is, the others is just ~~for~~ ~~the~~ ~~per~~ peripheral vision. It makes sense that more ~~stret~~ cones would be at the angle of 0° and decrease respectively at the increasing angles.

iii// Rhodopsin in rods is to transmit the colour back to the brain in a code so colour can be specifically noted. The 3 colours in rods of green, red and blue creates a code which rhodopsin is able to ~~decode~~ ^{in code} send to the brain to be de-coded.

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(d) i// 1 possible cause for the lack of action potentials in region X includes the amount of shock that an animal gets put through can shut off any action potentials in region X, as the ~~body~~ brain is unable to comprehend the events that have just occurred.

The second is that the brain doesn't have as ~~many~~ ^{much} blood supply, or nerve endings which reduces the amount of ~~the~~ action potential that can occur in an ~~area~~ this area, especially after a fall or surgery it could be damaged.

ii// The mammal may not be able to create action potential to a certain situation putting it in more danger. ~~The~~ The behaviour would then become ~~eradic~~ more vulnerable to risk as they are unaware of risks.

(e) our understanding of the eye with depth perception and ears with sound waves has led to the ~~development~~ development of technologies with 3D. Without understanding of depth perception ~~to~~ with eyes the vision of 3D would not exist. First of all to understand that depth is perceived by 2 different images produced by each eye. When ~~are~~ the 2 images are ~~are~~ more similar we gain a depth of things further away. When ² images are more different things are closer. A 3D movie has used the concept of using two images to trick peoples depth perception, along with the glasses, enables people to view completely different images with the two eyes creating depth. This understanding would have been crucial to the development of such technologies. The understanding of sound waves and pitch would be relevant to that technology of surround sound systems. ~~P~~ Lower pitch travels slower than higher pitch, ~~and sound waves will alter how the~~ two ears pick up similar sounds at different levels, and volumes, as sound waves will normally take longer to get from one ear to another. This enables use to ~~under~~ gain awareness of where the sound is coming from. Without this knowledge the technology of surround

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sound systems would never of been invented.

You may ask for an extra Writing Booklet if you need more space.