

ACTIVITY 1: STEREOSCOPIC VISION IN PRIMATES

PROCEDURE

1. Work with a partner to try this experiment. One person is team member A, the other team member B. You'll need a cup and some coins or POG chips.
2. Place a small cup in the middle of a desk.
3. Person A stands several meters away from the cup. Person B stands close to the cup, holding a coin in hand.
4. Keeping eyes at cup level, person A closes one eye and directs the other student to align the coin just above the cup. When person A thinks the coin is directly above the cup, s/he gives person B the command to drop it into the cup.
5. Repeat this step five times. Record the number of hits and misses.
6. Repeat the activity using both eyes. Do you observe any difference in the outcome? Explain.

QUESTIONS

1. Was your judgment more accurate with one or both eyes open? Explain.
2. What's the evolutionary advantage of stereoscopic vision?
3. How does primate vision compare with that of other species?
4. How might better vision enable the use of tools? Why do you need stereoscopic vision to see the "Magic Eye" and other 3-D pictures?

ANSWERS:

1. Both. Two eyes increase depth perception (stereoscopic vision).
 2. With greater depth perception, primates can move better in treetops.
 3. Eyes of higher primates are larger, face forward and see colors. Depth perception is increased. Vision replaces smell as the primary sense.
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