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Turning Genes On and Off Video Questions

1. A region of DNA called the paintbrush gene is responsible for the black spots on a fruit fly’s wings. Yet, fruit flies that do not have the black spots have the exact same gene. What did the video say is the cause of the black spots appearing on one and not the other?
2. About 2% of human DNA codes for proteins. What is the name for a region of DNA that codes for a protein?
3. The other 98% of DNA was formerly called “Junk” DNA because it did not code for proteins, so it was assumed that it did nothing. What do you think that 98% might do?
4. Every cell in your body has the exact same DNA as every other cell. Yet a cell in your kidney is very different from a muscle cell, which is very different from a skin cell. What do you think might explain this – cells having the same DNA but different structure and function?