|  |  |
| --- | --- |
| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

DNA Fingerprinting Crossword

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | 1 |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |  |  |
|  | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6 |  |  |  | 7 |  |  |  |  |  |  |  |  | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 9 |
|  |  |  |  |  |  |  |  | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 12 |  |  |  |  |  |  |
|  |  |  | 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 14 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 15 |  |  |  | 16 |  |  |  |  |  |  |  | 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 19 |  |  |  |  | 20 |  |  |  |  |  |  |  |  |  |  |  | 21 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | 22 |  | 23 |  |  |  |  |  | 24 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 25 |  |  |  |  |  |  |  |  | 26 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 27 |  |  |  |  | 28 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 29 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | 30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 31 |  |  |  |  |  |  |  |  | 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 33 |  |  |  |  |  |  |  |  | 34 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **Across**  **2.** process that separates RFLPs according to their length to create a DNA Fingerprint  **4.** Small DNA fragments of different lengths; abbreviated as RFLPs  **7.** base adenine binds only with  **8.** The human genome consists of approximately this many base pairs  **10.** The sides of the helix- referred to as the backbone of DNA-  **13.** technique that makes thousands of copies of segments of DNA that investigators want to analyze; abbreviated as PCR  **18.** The non-coded DNA segments that contain unique patterns of repeated base sequences that that are unique to individuals  **20.** Number of chromosomes in each human sex cell (sperm or egg)  **21.** Repeating DNA sequences 9 to 80 bases  **23.** The United States' Electronic database of DNA profiles  **25.** Regions of encoded DNA which contain directions for the body to build molecules  **26.** genetic material in our cells  **27.** Saliva, blood, semen, skin, hair roots, body tissue cells, and even urine  **30.** The type of sugar found in DNA  **31.** Most lab techniques used for DNA fingerprinting were not intended for forensic science purposes, they instead were designed to be used in what other field?  **32.** A technique used by scientists to distinguish between individuals of the same species using only samples of their DNA  **33.** Scientist (last name) who invented the process of DNA fingerprinting  **34.** "Molecular scissors" that cut DNA at specific locations | **Down**  **1.** avoided to protect collected DNA evidence from DNA damag  **3.** Short segments of complimentary DNA that base-pair with the template DNA upstream of the region of interest and serve as recruitment sites for the polymerase during PCR  **5.** Repeating DNA sequences that are 2 to5 bases in length;  **6.** DNA  **9.** Process of comparing family members' DNA for proof of familial relationships; each  **11.** DNA fragments of known lengths; used for comparison purposes during gel electrophoresis  **12.** Term for DNA found in the 'Powerhouse' of the cell; is in the form of a circular loop and is inherited only from the mother  **14.** Term for DNA found in the chromosomes of the nucleus; it is inherited from both the mother and father, and is virtually identical in all cells of an individual's body  **15.** Term for evidence capable of identifying a specific person  **16.** spiral staircase shape of DNA  **17.** Number of chromosomes in each human body cell  **19.** Regions of un-encoded DNA that do not code for the production of molecules; often referred to as 'junk DNA'  **22.** Another name for DNA fingerprinting  **24.** Term for the total amount of DNA in a cell  **28.** A small segment of DNA that controls the traits of the organism, and therefore can vary between individuals  **29.** The base cytosine binds only with what other nitrogenous base? |