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DNA Fingerprinting Crossword

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| **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? |