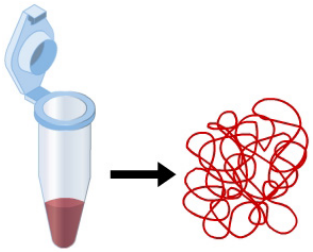
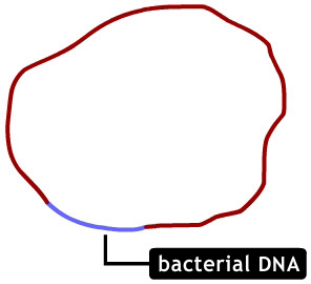
DNA to Data

Answers



1 E

2 G



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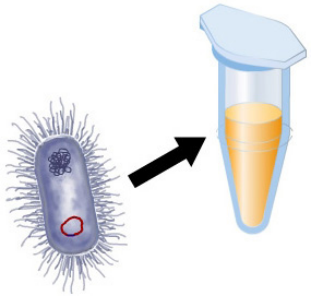
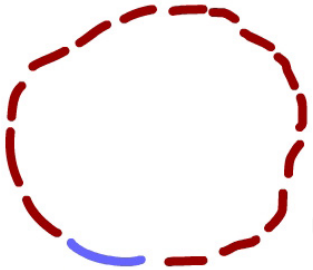
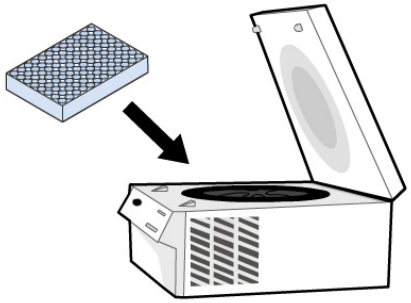


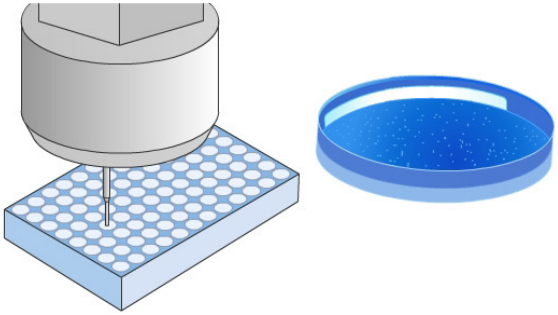
4 B



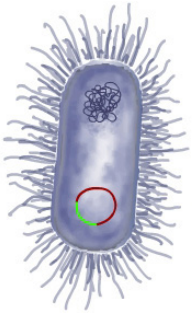
5 I



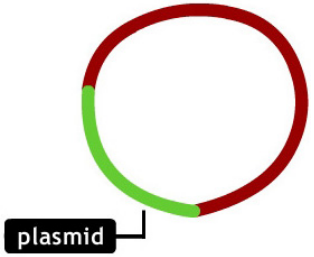
9 A



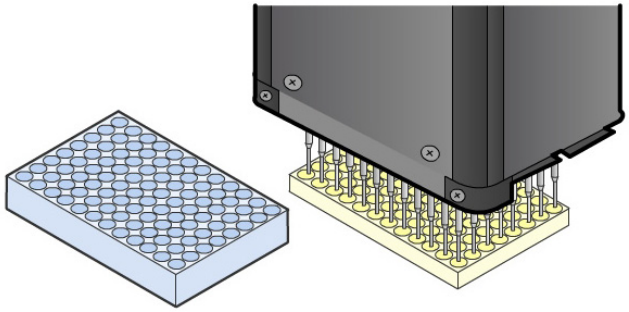
8 C



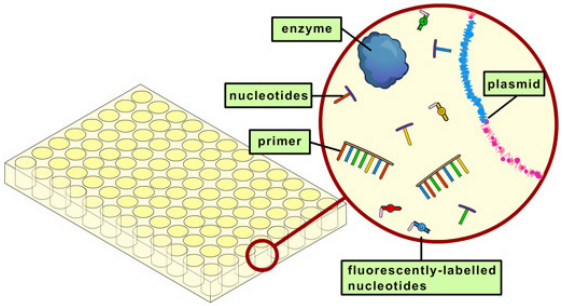
7 K



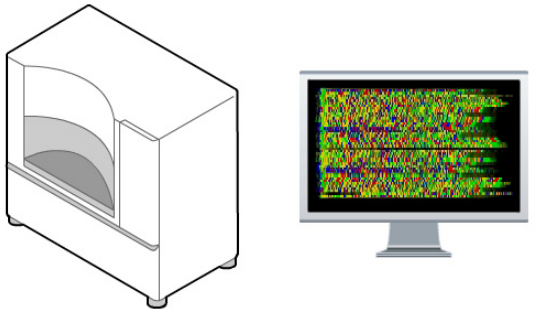
6 F



10 L



11 J



12 H

DNA to Data

Answers

1	DNA is extracted from a blood sample. (E)	**7**	A plasmid is inserted into bacteria that are gron on agarose plates. (K)
2	The DNA sample is broken down into many random 200,000 base pair pieces. (G)	**8**	Robots pick colonies of bacteria and transfer them into individual wells. (C)
3	DNA fragments are combined with modifed pieces of bacterial DNA. (D)	**9**	Samples are treated with detergent to burst cells and centrifuged to eseparate out sample DNA. (A)
4	Recombinant DNA is inserted into bacterial cells and cultured for storage and sequencing. (B)	**10**	DNA samples are transferred to a 96-well plate where sequencing chemicals are added. (L)
5	DNA fragments about 200,000 base pairs long are broken into smaller pieces of about 4000 - 6000 base pairs long. (I)	**11**	The sequencing mix contains a mixture of plasmid and target DNA, DNA nucleotides, fluorescently-tagged nucleotides , enzyme and primer sequences. (J)
6	Small fragments of DNA are packaged into bacterial plasmids. (F)	**12**	A plate loaded into a sequencing machine that displays the DNA base sequences as a series of coloured bars or peaks. (H)