Recombinant DNA technology vocab sorting

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| Recombinant DNA | The DNA of two different organisms that has been combined. |
| Transgenic organism | An organism containing recombinant DNA. |
| Insertion | Placing a DNA fragment into a vector. |
| Vector | Something which can transfer DNA into a cell e.g. a plasmid or a virus. |
| Transformation | Transfer of DNA into a host cell. |
| Reverse transcriptase | Enzyme that converts mRNA to cDNA |

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| Restriction endonucleases | Enzymes which cut DNA at a specific base sequence |
| Recognition site | The palindromic base sequence which is cut by a restriction endonuclease |
| Sticky ends | Short overhanging single stranded sections of DNA left after it has been cut. |
| Oligonucleotides | Short sections of DNA made by a gene machine which are then assembled into a gene. |
| In vivo cloning | Using a vector to put DNA into a host cell which will then copy the DNA |

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| In vitro cloning | Copying DNA in the lab using PCR |
| DNA ligase | Joins the sugar-phosphate backbone to attach pieces of DNA together. |
| Promoter | A sequence of DNA where the enzyme RNA polymerase will bind, along with transcription factors, to begin the process of transcription. |
| Terminator | A sequence of DNA which releases RNA polymerase and ends transcription. |
| Calcium ions | Used to increase permeability of bacterial membrane and therefore increase the chance of transformation. |
| Marker gene | A gene used to identify which bacteria have taken up recombinant plasmid. |

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| GFP | A protein from a jellyfish used as a marker. |
| Replica plating | A technique used with antibiotic resistance marker genes to identify which bacteria have a plasmid containing the inserted DNA. |
| Lactase | The gene which produces this enzyme can be used as a marker, as the enzyme will turn a colourless substrate blue. |
| Taq | The polymerase used in PCR |
| Primers | Short sequences of nucleotides that have complementary bases to the start and end of the sequence of DNA to be copied. |
| Thermocycler | Machine used in PCR to vary temperatures |
| Annealing | Primers will join to complementary base sequences |