



Comparing Genomes

1 2 3 4 5

Epidemiology



Evolutionary Relatedness (Phylogeny)

e.g.

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_____:

Bioinformatics

e.g.

Genotype-Phenotype Relationships



Computational
Biology



Synthetic Biology



Epidemiology



e.g.



e.g.



DNA Profiling

1 2 3 4 5

DNA Profiling

_____:



Suspect ①

Suspect ②



Genome Projects

1 2 3 4 5

Genome

_____:

_____:



Proteome

Simple Organisms

Complex Organisms

uses

e.g.

e.g.



e.g.





Isolating Target Genes

1 2 3 4 5

Restriction Enzymes

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e.g.

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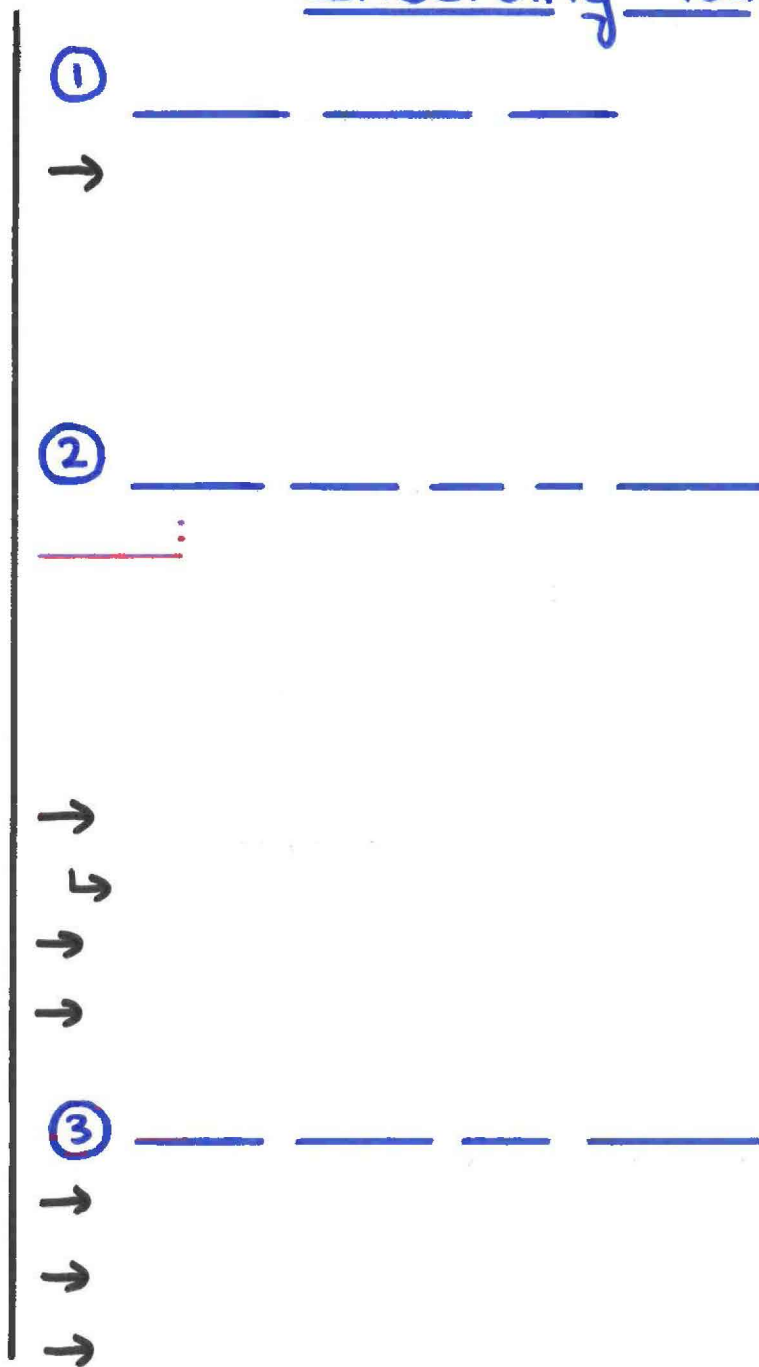
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Inserting Target Genes

1 2 3 4 5





Polymerase Chain Reaction (PCR)

1 2 3 4 5

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Ingredients

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Method

Reason

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②

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③

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④

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Electrophoresis

1 2 3 4 5

Electrophoresis

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Gene Therapy-

Gene Therapy

e.g.

e.g.

Germ line
gene therapy



Somatic
Gene Therapy



Types of Gene Therapy-

_____:



_____:



Possible Problems

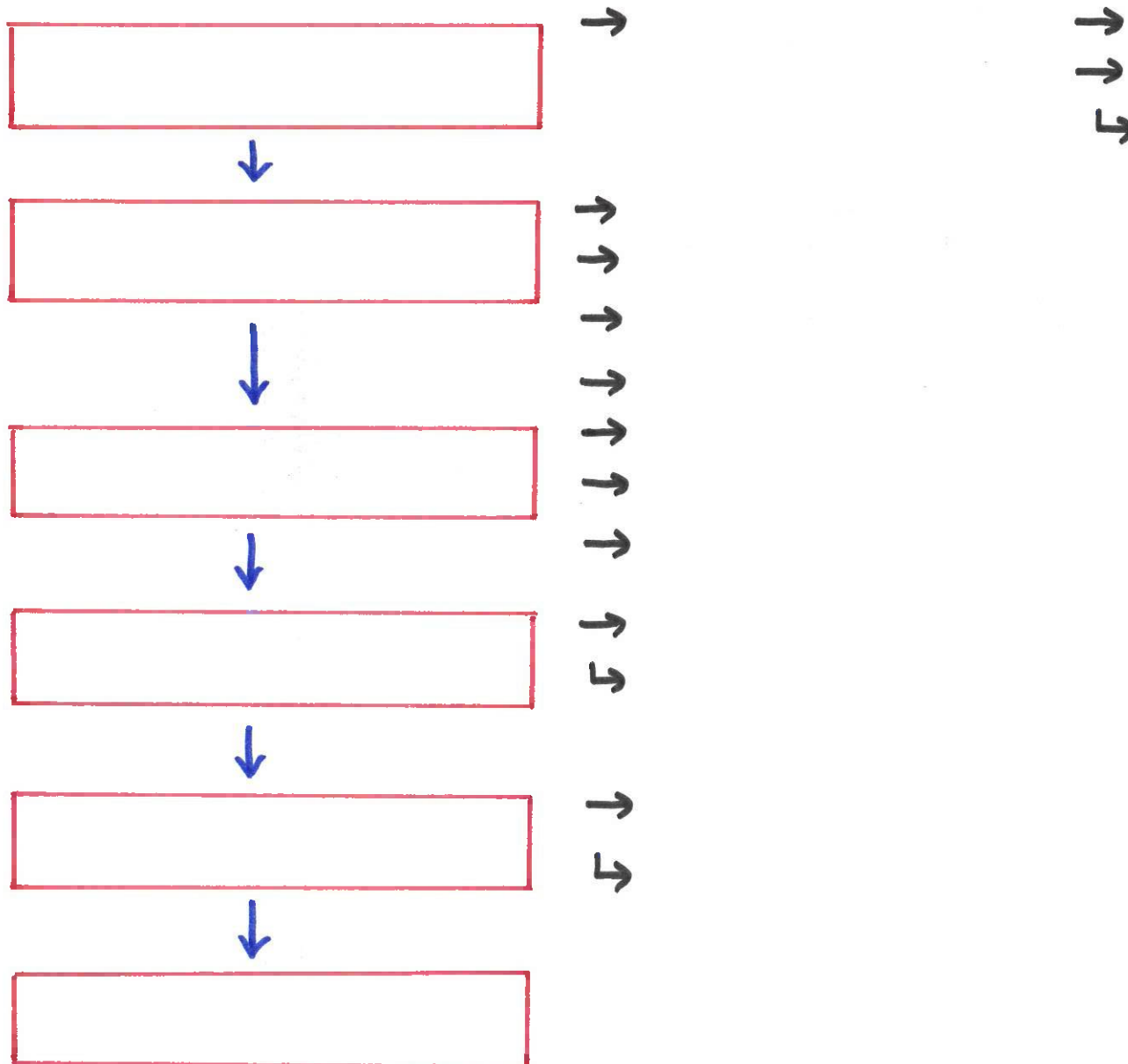


e.g.





Summary of Gene Technology-





Genetically Modified (Transformed) Organisms

1 2 3 4 5

	Uses	Advantages	Disadvantages
Agriculture e.g.			
Industry & Research			
Medicine 'Pharming' e.g.			