

B13 - reproduction

<u>Question</u>	<u>Answer</u>
List the characteristics of sexual reproduction.	2 parents, variation, used by large organisms, slow, high energy, high risk.
List the characteristics of asexual reproduction.	1 parent, no variation, used by small organisms, fast, low energy, low risk.
Define mitosis.	Cell division that produces body cells.
What does mitosis produce?	2 genetically identical, diploid, daughter cells.
Define meiosis.	Cell division that produces gametes.
What does meiosis produce?	4 different, haploid daughter cells.
Describe why meiosis is important.	It produces variation.
Describe why variation is important.	Allows populations of species to cope with environmental changes.
What is DNA?	A double helix molecule contained within chromosomes.
What is a chromosome?	X shaped molecules that contain long strands of DNA.
What is a gene?	Section of DNA that codes for a characteristic.
Define genotype.	The genetic makeup of an organism.
Define phenotype.	An organism's observable characteristics.
Define an allele.	Different forms of the same gene.
Define dominant allele.	Phenotype is expressed if one allele is inherited.
Define recessive allele.	Two alleles need to be inherited for the phenotype to be expressed.
Define homozygous.	Two identical alleles.
Define heterozygous mean.	Two different alleles.

What is polydactyly?	Inherited disorder. Results in extra digits. Caused by dominant allele.
What is Cystic fibrosis?	Inherited disorder. Results in poor function of cell membranes. Caused by a recessive allele.
Name the two types of embryo screening.	Amniocentesis and Chorionic Villus Sampling.
Describe what happens during amniocentesis.	Fluid from around the fetus is taken. Fluid contains cells that can be screened.
Describe what happens during Chorionic Villus Sampling.	Tissue samples from the placenta are taken. Tissue contains cells that can be screened.
Give the advantages of embryo screening.	Detects genetic disorders, reduces health care costs and multiple pregnancies, identifies healthy embryos.
Give the disadvantages of embryo screening.	Expensive, increases risk of miscarriage, false results possible, forces parents to make difficult decisions, designer babies.

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List the characteristics of asexual reproduction.	
Define mitosis.	
What does mitosis produce?	
Define meiosis.	
What does meiosis produce?	
Describe why meiosis is important.	
Describe why variation is important.	
What is DNA?	
What is a chromosome?	
What is a gene?	
Define genotype.	
Define phenotype.	
Define an allele.	

Define dominant allele.	
Define recessive allele.	
Define homozygous.	
Define heterozygous mean.	
What is polydactyly?	
What is Cystic fibrosis?	
Name the two types of embryo screening.	
Describe what happens during amniocentesis.	
Describe what happens during Chorionic Villus Sampling.	
Give the advantages of embryo screening.	
Give the disadvantages of embryo screening.	