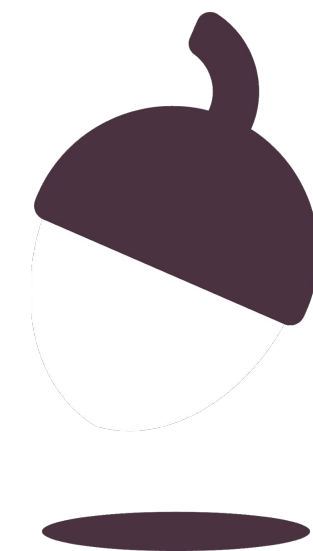


Combined Science - Biology - Key Stage 4

Genetic Inheritance - Foundation

Mrs Gibbs



OAK
NATIONAL
ACADEMY

Independent task

Red-green colour blindness is a recessive characteristic. (The alleles are R and r for this gene)

1. What are the phenotypes? Not colour blind or _____
2. What are the **3** possible genotypes? RR , _____ or _____
3. What genotype **must** a person with red-green colour blindness have?
4. What genotype **could** a person with unaffected vision have? _____ or _____



What is the probability the offspring will have black fur?

a)

		Male	
		B	B
Female	B		
	b		



Percentage: _____

Proportion: _____

b)

		Male	
		B	b
Female	B		
	b		



Percentage: _____

Proportion: _____



Independent task

Red-green colour blindness is a recessive condition

- 1) How many copies of a **recessive** allele are needed for it to be expressed in the phenotype?
- 2) Complete the Punnett square to show the probability of offspring being colour blind. Express this as a **ratio**.
- 3) What **percentage** of offspring in the diagram have **homozygous** alleles?

		Male	
		R	r
Female	r		
	r		

