



Oxford City Schools

Proficiency Scale

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GRADE LEVEL: 7TH COURSE NAME: SCIENCE
MEASUREMENT TOPIC: EXPLAIN GENETIC VARIATIONS AND MUTATIONS

4	<ul style="list-style-type: none">• Obtain, evaluate, and communicate information on the use of technologies that impact the inheritance and appearance of traits in organisms. Examples: genetic engineering, gene therapy, selective breeding, genetically modified organisms
3	<ul style="list-style-type: none">• Develop and use models to demonstrate variations between parent and offspring caused by genetic differences.• Develop and use models to explain that meiosis results in genetic combinations with increased variation.• Develop and use models to explain how genes are expressed through the flow of genetic information from DNA to RNA to a functional protein.
2	<ul style="list-style-type: none">• Use a model to describe genotypic and phenotypic outcomes.• Develop models to show a potential cross (Punnett Squares).• Construct an explanation of how genetic variants may result in harmful, beneficial, or neutral effects on the structure and function of an organism.• Transcribe a strand of DNA to its corresponding strand of RNA

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With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.

Key Vocabulary: