

# Mountain View Academy

*All children deserve to believe themselves...*

## Biology-30 Year Plan, Fall 08/09

<b>Units</b>	<b>Topics</b>	<b>Key Concepts</b>	<b>Dates</b>
A	Cell Division, Genetics and Molecular Biology	<ul style="list-style-type: none"><li>- Cell cycle</li><li>- Mitosis and meiosis</li><li>- Chromosome number</li><li>- Karyotype</li><li>- Alternation of generations</li><li>- Mendel's laws of heredity</li><li>- Probability</li><li>- Monohybrid, dihybrid and sex-linked inheritance</li><li>- Incomplete dominance and codominance</li><li>- Polygenic and multiple allelic traits</li><li>- Gene linkage</li><li>- Model of DNA</li><li>- Replication</li><li>- Transcription</li><li>- Translation</li><li>- Mutation</li><li>- Genetic engineering</li></ul>	Sept 2 to Oct 10
B	Nervous and Endocrine System	<ul style="list-style-type: none"><li>- Neuron</li><li>- Nerve impulse transmission</li><li>- Central and peripheral nervous systems</li><li>- Reflex arcs</li><li>- Sensory receptors</li><li>- Endocrine system and hormones</li><li>- Homeostasis and feedback systems</li><li>- Endocrine system and hormones</li><li>- Homeostasis and feedback systems</li><li>- Endocrine and nervous system interactions</li></ul>	Oct 14 to Nov 14

C	Reproduction and Development	<ul style="list-style-type: none"> <li>- Male and female reproduction systems</li> <li>- Reproductive hormones</li> <li>- Reproductive technologies</li> <li>- Embryonic and fetal development</li> <li>- Parturition</li> <li>- Lactation</li> </ul>	Nov 17 to Dec 12
D	Population and Community Dynamics	<ul style="list-style-type: none"> <li>- Hardy-Weinberg principle</li> <li>- Gene pool</li> <li>- Nature selection</li> <li>- Symbiotic relationships and other interactions</li> <li>- Succession</li> <li>- Determiners of population size; natality, mortality, immigration, emigration</li> <li>- Population growth rate and population growth curves</li> <li>- K-and r-selected reproductive strategies</li> </ul>	Dec 15 to Jan 16