

<p>4. During the transfer of organic food from one trophic level to the next, only about ten percent of the organic matter is stored as flesh. The remaining is lost during transfer or broken down in respiration.</p>	<p>2. Each pair of alleles separated independently of each other pair of alleles during the formation of egg and sperm.</p>
<p>3. Elements are made of tiny particles called <u>atoms</u>.</p> <ul style="list-style-type: none"> • All atoms of a given <u>element</u> are identical. • The atoms of a given element are different from those of any other element; the atoms of different elements can be distinguished from one another by their respective relative weights. • Atoms of one element can combine with atoms of other elements to form <u>chemical compounds</u>; a given compound always has the same relative numbers of types of atoms. • Atoms cannot be created, divided into smaller particles, nor destroyed in the chemical process; a <u>chemical reaction</u> simply changes the way atoms are grouped together. 	<p>5. The idea of ideal gases assumes the following:</p> <ul style="list-style-type: none"> • The gas consists of very small particles, all with non-zero <u>mass</u>. • The number of molecules is large such that statistical treatment can be applied. • These molecules are in constant, <u>random</u> motion. The rapidly moving particles constantly collide with the walls of the container. • The collisions of gas particles with the walls of the container holding them are perfectly elastic.
<p>1. $F = ma$</p>	<p>8. $p^2 + 2pq + q^2 = 1$</p>
<p>6. Objects fall toward Earth because the mass of the Earth exerts a force on them.</p>	<p>7. Two alleles for a heritable character (trait) separate during the formation of egg or sperm and end up in different, separate, egg or sperm.</p>
<p>9. Gases: $PV = nRT$ pressure x volume = moles x gas constant x temperature</p>	<p>10. If you drop objects in our atmosphere, they fall towards Earth (exception: He balloons, birds, etc)</p>
<p>11. A body in motion tends to stay in motion. A body at rest tends to stay at rest, unless acted upon by an outside force.</p>	<p>12. Natural selection is the process in which organisms with certain inherited characteristics are more likely to survive and reproduce than are organisms with other characteristics.</p>
<p>13. Plants will grow greater numbers of leaves when placed in red light than in green light because chlorophyll does not absorb green light.</p>	<p>14. Pillbugs will choose a moist habitat over a very dry habitat because they must keep their gills moist to breathe.</p>
<p>15. The total amount of energy in an isolated system remains constant over time</p>	<p>16. $V = I \times R$</p>