**PAGE # \_\_\_\_\_\_\_**

**NOTES – CHARACTERISTICS OF LIVING THINGS**

**Living things must meet all 8 characteristics listed below.**

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| 1. **Living things are made of cells.**   Are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and organisms can be   1. Unicellular - \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_; single cell. 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - many celled. | **http://www.earthlife.net/images/eury-cell.gifhttp://www.fi.edu/learn/heart/blood/images/large_white-cells.jpg** |
| 1. **Living things reproduce.** 2. Asexual - \_\_\_\_\_\_\_\_\_\_\_\_ has a \_\_\_\_\_\_\_\_\_\_\_ parent. 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - two cells from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ unite to produce 1st cell of organism.   \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ form. | **Amoeba Reproductionhttp://www.robynsnest.com/images/conception.gif**  **Asexual Sexual**  **Reproduction Reproduction** |
| 1. **Living things are based on a universal genetic code.**   Is based on a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (DNA)  that determines \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of every organism on Earth. | **http://ghr.nlm.nih.gov/handbook/illustrations/dnastructure.jpg** |
| 1. **Living things grow and develop.**   \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and develop.   * At some point \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in size. * Organisms change (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) over the course of their \_\_\_\_\_\_\_\_\_time. | **http://www.fetaldevelopment.info/wp-content/uploads/2011/07/fetal-growth1.jpg** |
| 1. **Living things obtain and use energy.**   Obtains and \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and energy.   * Need these to \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ alive. * Need constant \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. * Definition: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - combination of \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the body that builds or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ materials as it carries out its life function. | **http://www.insidepossie.com/wp-content/uploads/2011/01/gal_eating_contest_14.jpg**  http://www.elmhurst.edu/~chm/vchembook/images/590metabolism.gif |
| 1. **Living things respond to their environment.**   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_ their environment.   * Organisms \_\_\_\_\_\_\_\_\_\_\_\_\_ and respond to \_\_\_\_\_\_\_\_\_\_\_\_ in their environment. * Definition: stimuli - \_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ an organism responds.   * Can be external or internal. | **http://www.chrisbatu.com/wp-content/uploads/2011/08/Phototropism2.jpg** |
| 1. **Living things maintain a stable internal environment.**   Maintain a \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ environment.   * \_\_\_\_\_\_\_\_\_\_\_\_\_ to do this is known as homeostasis. * Often involves \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_   mechanisms. | **http://theblueinkwell.com/wp-content/uploads/2011/04/1.1.jpg** |
| 1. **Living things change over time.**   Taken as a group \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_;  these changes are \_\_\_\_\_\_\_\_\_\_\_\_\_ at any one time but over \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_\_\_\_\_ can be significant. | **http://www2.estrellamountain.edu/faculty/farabee/biobk/evolhorse.gif** |

**LEVELS OF ORGANIZATION**

