**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 be1. 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**

