Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**OGT Prep Academy: Week 2**

**Key Terms for Biology & Earth Science**

**OGT Science: Biology (Life Science) Key Terms**

**1.** ATP

Bubble

1. Code

Bubble

1. Energy

Bubble

1. Flagella

Bubble

1. Fusion

**2.** Cell division

Bubble

1. DNA

Bubble

1. Respiration

Bubble

1. Photosynthesis

Bubble

1. Mitosis

**3.** has a nucleus

Bubble

1. eukaryote

Bubble

1. prokaryote

Bubble

1. bacteria

Bubble

1. electron

**4.** Protective shield in the atmosphere... being eaten away by pollution (called CFC's).

Bubble

1. Ozone Layer

Bubble

1. Biodiversity

Bubble

1. Global Warming

Bubble

1. Acid Rain

**5.** Respiration

Bubble

1. Makes sugar and releases Oxygen

Bubble

1. For locomotion

Bubble

1. Stores code for living things

Bubble

1. Burns Sugar, releases Carbon Dioxide

**6.** Homozygous

Bubble

1. has the same genes

Bubble

1. Has different genes

Bubble

1. force that drives evolution

Bubble

1. Variety in genes in a population

**7.** Variety of Life Forms

Bubble

1. Acid Rain

Bubble

1. Global Warming

Bubble

1. Ozone Layer

Bubble

1. Biodiversity

**8.** Chloroplast

Bubble

1. Stores the DNA

Bubble

1. nucleus

Bubble

1. Photosynthesis

Bubble

1. Cell Membrane

**9.** Has no nucleus

Bubble

1. eukaryote

Bubble

1. prokaryote

Bubble

1. plant cell

Bubble

1. animal cell

**10.** Mitochondria

Bubble

1. Respiration

Bubble

1. DNA

Bubble

1. Photosynthesis

Bubble

1. Mitosis

**11.** Adaptation

Bubble

1. Biodiversity

Bubble

1. All living things living together

Bubble

1. Global Warming

Bubble

1. Changing to fit the surroundings and survive better.

**12.** A eukaryote

Bubble

1. you

Bubble

1. prokaryote

Bubble

1. an electron

Bubble

1. bacteria

**13.** Natural selection

Bubble

1. Force that drives Evolution

Bubble

1. All living things living together

Bubble

1. Changing to fit the surroundings and survive better.

Bubble

1. Slow change in Life forms over time

**14.** Cilia and Flagella

Bubble

1. Stores code for living things

Bubble

1. Burns Sugar, releases Carbon Dioxide

Bubble

1. Makes sugar and releases Oxygen

Bubble

1. For locomotion

**15.** Nucleus

Bubble

1. Cell Membrane

Bubble

1. Vacuole

Bubble

1. Ribosome

Bubble

1. Stores the DNA

**16.** mitochondria

Bubble

1. nucleus

Bubble

1. Photosynthesis

Bubble

1. Respiration

Bubble

1. Stores the DNA

**17.** Nucleus

Bubble

1. DNA

Bubble

1. Photosynthesis

Bubble

1. Mitosis

Bubble

1. Respiration

**18.** Photosynthesis

Bubble

1. Makes sugar and releases Oxygen

Bubble

1. Burns Sugar, releases Carbon Dioxide

Bubble

1. Stores code for living things

Bubble

1. For locomotion

**19.** DNA

Bubble

1. Makes sugar and releases Oxygen

Bubble

1. Stores code for living things

Bubble

1. Burns Sugar, releases Carbon Dioxide

Bubble

1. For locomotion

**20.** Evolution

Bubble

1. Force that drives Evolution

Bubble

1. Slow change in Life forms over time

Bubble

1. site of respiration

Bubble

1. All living things living together

**21.** Heterozygous

Bubble

1. force that drives evolution

Bubble

1. Variety in genes in a population

Bubble

1. Has different genes

Bubble

1. has the same genes

**22.** Genetic Variation

Bubble

1. Variety in genes in a population

Bubble

1. has the same genes

Bubble

1. Mitochondria

Bubble

1. force that drives evolution

**23.** Cell division that makes Reproductive Cells (eggs or sperm cells)

Bubble

1. meiosis

Bubble

1. cloning

Bubble

1. genetic engineering

Bubble

1. mitosis

**24.** Ecosystem

Bubble

1. Slow change in Life forms over time

Bubble

1. All living things living together

Bubble

1. Changing to fit the surroundings and survive better.

Bubble

1. Force that drives Evolution

**25.** eukaryote

Bubble

1. who care eyote

Bubble

1. a cell with flagella

Bubble

1. cell without organelles

Bubble

1. cell with organelles

**Answers**

1. B   
2. D   
3. A   
4. A   
5. D   
6. A   
7. D   
8. C   
9. B   
10. A   
11. D   
12. A   
13. A   
14. D   
15. D   
16. C   
17. A   
18. A   
19. B   
20. B   
21. C   
22. A   
23. A   
24. B   
25. D

**Explanations**

1. During Respiration, sugar is burned and the energy is stored in ATP.

2. Mitosis is regular cell division... it copies its DNA and splits into 2 cells. Meiosis is cell division which reduces the amount of DNA in half... it is for making reproductive cells.

5. Respiration happens in the mitochondria... it burns sugar and consumes Oxygen. it stores the energy in ATP and releases Carbon Dioxide.

6. A person with 2 of the same genes for a trait. Dominant genes are shown as capital letters, and Recessive genes are shown as lower case letters. Dominant genes cover up Recessive genes. like RR would be homozygous, because it has 2 dominant genes. rr is also homozygous because it has 2 recessive genes.

7. Having a large diversity of living things keeps ecosystems working together effectively. we lose biodiversity when an animal species go extinct (are completely wiped out) visit... http://www.eoearth.org/article/Biodiversity?topic=49480

8. Chloroplasts are organelles perform Photosynthesis... they make sugar and release Oxygen.

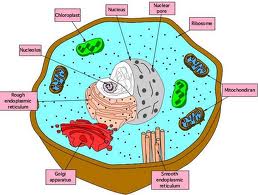
10. Mitochondria are organelles inside cells which perform Respiration... they burn sugar and release Carbon Dioxide. They store the energy from sugar into ATP molecules.

13. Natural selection is like "survival of the fittest"... What is the most successful and reproduces the most will survive. check out... http://evolution.berkeley.edu/evolibrary/article/evo\_25

14. cilia and flagella help microscopic life move around (locomotion = moving around) check out this video... http://www.dnatube.com/video/5967/flagella--cilia

15. A Nucleus is an Organelle which contains the DNA. DNA stores the code for living things.

16.



Mitochondria are organelles inside cells which perform Respiration... they burn sugar and release Carbon Dioxide.  They store the energy from sugar into ATP molecules.

17. the Nucleus is an organelle which stores the DNA.

18. Photosynthesis is what plants do when they capture the suns energy and lock that into sugar and release energy.

19. DNA stores the code for all living things... everybody has different DNA (except Ientical twins), that's why everybody is a little different. for further learning,... http://www.dnai.org/

20. Science believe all life came from the same ancestors, and has slowly changed over ver about 3.5 billion years... from bacteria, to plants, to dinosaurs, to caveman. for further learning... http://evolution.berkeley.edu/evolibrary/article/evo\_01

21. A person with 2 different genes for a trait. Dominant genes are shown as capital letters, and Recessive genes are shown as lower case letters. Dominant genes cover up Recessive genes. like Rr would be heterozygous, because it has one dominant and one recessive gene.

22. some populations have a lot of variety in their genes, like humans. some types of animals do not have a lot of variety of genes... they are all genetically similar... this is bad because if something kills one of them, it could kill all of them. A population with high genetic variation can more easily adapt to situations. http://evolution.berkeley.edu/evolibrary/article/evo\_17

24. an ecosystem is all living things living together and how they are all connected... a plants produce material and bring in energy from the sun, animals consume the plants (herbivores), and then animals consume the animals (carnivores/ predators). Everything is interconnected, including all humans (what did you eat today?... where does food come from?) for further learning... http://www.nhptv.org/NatureWorks/nwepecosystems.htm

**OGT Earth and Space Science Key Terms**

**1.** Cracking/ fracture of plates.

Bubble

1. Faulting

Bubble

1. condensation

Bubble

1. Nuclear Fusion

Bubble

1. Folding



**2.** What is this?

Bubble

1. a Nebula

Bubble

1. the Big Bang

Bubble

1. a Spiral Galaxy

Bubble

1. a Solar System



**3.** What is this?

Bubble

1. A spiral Galaxy

Bubble

1. The Big Bang

Bubble

1. a Solar System

Bubble

1. a Nebula

**4.** The study of weather

Bubble

1. Archaeology

Bubble

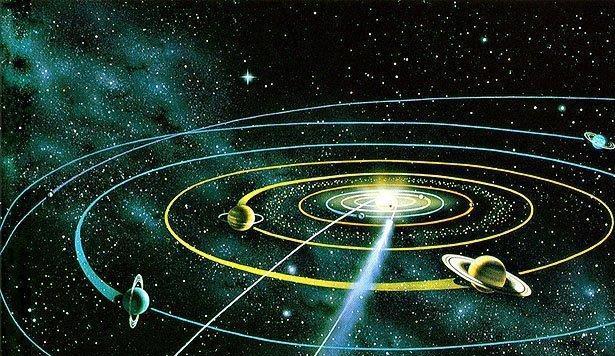
1. Astronomy

Bubble

1. Plate Tectonics

Bubble

1. Meteorology

 **5.** What is this?

Bubble

1. the Big Bang

Bubble

1. a Nebula

Bubble

1. a Solar System

Bubble

1. A Spiral Galaxy

**6.** Age of the universe

Bubble

1. about 14.5 billion years

Bubble

1. about 7000 years

Bubble

1. about one million years

Bubble

1. 2011 years

**7.** The study of the Earths crust

Bubble

1. Plate Tectonics

Bubble

1. Meteorology

Bubble

1. Astronomy

Bubble

1. Archaeology

**8.** Measuring the age of rocks or fossils by measuring the radioactive materials in them.

Bubble

1. Radiometric Dating

Bubble

1. Relative Dating

Bubble

1. Blind Dating

Bubble

1. Rockageolology

**9.** Name the surface layer of the Earth.

Bubble

1. Crust

Bubble

1. Nebula

Bubble

1. Core

Bubble

1. Magma

**10.** When atoms are smashed together

Bubble

1. Nuclear fusion

Bubble

1. Nuclear fission

Bubble

1. photosynthesis

Bubble

1. Oxidation

**11.** The crust is broken into pieces called Lithospheric…

Bubble

1. Plates

Bubble

1. Flagella

Bubble

1. Magma

Bubble

1. Nebula

**12.** When Lithospheric Plates move and smash against each other

Bubble

1. Tsunamis

Bubble

1. Hurricane

Bubble

1. earthquakes

Bubble

1. volcanoes

**13.** The fact that the same fossils are found in the same rock layers on each continent.

Bubble

1. Relative Dating

Bubble

1. Radiometric Dating

Bubble

1. Fossil Correlation

Bubble

1. Absolute Dating

**14.** When plates smash together and crush upward…

Bubble

1. Tsunami

Bubble

1. Hurricane

Bubble

1. Volcanoes

Bubble

1. Mountains

**15.** When atoms split apart.

Bubble

1. Meiosis

Bubble

1. mitosis

Bubble

1. Nuclear fission

Bubble

1. Nuclear fusion

**16.** Magma flows in circular patterns called&

Bubble

1. Mitochondria

Bubble

1. Convection currents

Bubble

1. Chloroplasts

Bubble

1. Plate tectonics

**17.** The source of all life energy…

Bubble

1. Nuclear fission

Bubble

1. Stem cells

Bubble

1. The sun

Bubble

1. Covalent bonds

**18.** When comparing the age of rock layers...

Bubble

1. Top layer is oldest

Bubble

1. Oldest is youngest (…what?)

Bubble

1. Deepest is oldest

Bubble

1. Deepest is youngest

**19.** Main force in the universe …

Bubble

1. Nuclear fission

Bubble

1. Nuclear fusion

Bubble

1. photosynthesis

Bubble

1. gravity

**20.** Earth's Plates were once all locked together into one giant continent called…

Bubble

1. Mothra

Bubble

1. Pangea

Bubble

1. Supernova

Bubble

1. Giganto-continus

**21.** Center of the earth solid Iron

Bubble

1. Core

Bubble

1. Nucleus

Bubble

1. Nebula

Bubble

1. Pangea

**22.** Bending of plates.

Bubble

1. Folding

Bubble

1. condensation

Bubble

1. Faulting

Bubble

1. Nuclear Fusion

**23.** A huge cloud of gas and dust in space…

Bubble

1. Nebula

Bubble

1. Constellation

Bubble

1. Neutron

Bubble

1. Proton

**24.** When Magma is forced though faults in the plates crust.

Bubble

1. Tsunamis

Bubble

1. volcanoes

Bubble

1. Hurricane

Bubble

1. earthquakes

**25.** Measuring the age of rocks or fossils by comparing them to the things around them.

Bubble

1. Radiometric Dating

Bubble

1. Double Dating

Bubble

1. Blind Dating

Bubble

1. Relative Dating

**Answers**

1. A   
2. A   
3. A   
4. D   
5. C   
6. A   
7. A   
8. A   
9. A   
10. A   
11. A   
12. C   
13. C   
14. D   
15. C   
16. B   
17. C   
18. C   
19. D   
20. B   
21. A   
22. A   
23. A   
24. B   
25. D