

Example Items

Science 6

Pre-AP

Science 6 Pre-AP Example Items are a **representative set** of items for the ACP. Teachers may use this set of items along with the test blueprint as guides to prepare students for the ACP. On the last page, the correct answer, content SE and SE justification are listed for each item.

*The specific part of an SE that an Example Item measures is **NOT** necessarily the only part of the SE that is assessed on the ACP.* None of these Example Items will appear on the ACP.

Teachers may provide feedback regarding Example Items.

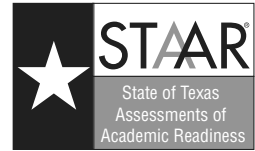
(1) Download the [Example Feedback Form](#) and email it. The form is located on the homepage of the Assessment website (assessment.dallasisd.org).

OR

(2) To submit directly: Login to the [Assessment website](#). Under “News” in the left-hand column, click on “Sem 2 Example Items Download.” Above the subjects, click on “Example Feedback Form.”

Second Semester
2017–2018
Code #: 3161

STAAR GRADE 8 SCIENCE REFERENCE MATERIALS



FORMULAS

$$\text{Density} = \frac{\text{mass}}{\text{volume}}$$

$$D = \frac{m}{V}$$

$$\text{Average speed} = \frac{\text{total distance}}{\text{total time}}$$

$$s = \frac{d}{t}$$

$$\text{Net force} = (\text{mass})(\text{acceleration})$$

$$F = ma$$

$$\text{Work} = (\text{force})(\text{distance})$$

$$W = Fd$$

STAAR GRADE 8 SCIENCE REFERENCE MATERIALS

PERIODIC TABLE OF THE ELEMENTS

1 1A	2 2A	3 3B	4 4B	5 5B	6 6B	7 7B	8 8B	9	10	11 1B	12 2B	13 3A	14 4A	15 5A	16 6A	17 7A	18 8A
1 H 1.008 Hydrogen	2 He 4.0026 Helium	3 Li 6.94 Lithium	4 Be 9.0122 Beryllium	5 B 10.81 Boron	6 C 12.011 Carbon	7 N 14.007 Nitrogen	8 O 15.999 Oxygen	9 F 18.998 Fluorine	10 Ne 20.180 Neon	11 Na 22.990 Sodium	12 Mg 24.305 Magnesium	13 Al 26.982 Aluminum	14 Si 28.085 Silicon	15 P 30.974 Phosphorus	16 S 32.06 Sulfur	17 Cl 35.45 Chlorine	18 Ar 39.948 Argon
19 K 39.098 Potassium	20 Ca 40.078 Calcium	21 Sc 44.956 Scandium	22 Ti 47.867 Titanium	23 V 50.942 Vanadium	24 Cr 51.996 Chromium	25 Mn 54.938 Manganese	26 Fe 55.845 Iron	27 Co 58.933 Cobalt	28 Ni 58.693 Nickel	29 Cu 63.546 Copper	30 Zn 65.38 Zinc	31 Ga 69.723 Gallium	32 Ge 72.630 Germanium	33 As 74.922 Arsenic	34 Se 78.971 Selenium	35 Br 79.904 Bromine	36 Kr 83.798 Krypton
37 Rb 85.468 Rubidium	38 Sr 87.62 Strontium	39 Y 88.906 Yttrium	40 Zr 91.224 Zirconium	41 Nb 92.906 Niobium	42 Mo 95.95 Molybdenum	43 Tc Technetium	44 Ru 101.07 Ruthenium	45 Rh 102.91 Rhodium	46 Pd 106.42 Palladium	47 Ag 107.87 Silver	48 Cd 112.41 Cadmium	49 In 114.82 Indium	50 Sn 118.71 Tin	51 Sb 121.76 Antimony	52 Te 127.60 Tellurium	53 I 126.90 Iodine	54 Xe 131.29 Xenon
55 Cs 132.91 Cesium	56 Ba 137.33 Barium	57 Lu 174.97 Lutetium	58 Hf 178.49 Hafnium	59 Ta 180.95 Tantalum	60 W 183.84 Tungsten	61 Re 186.21 Rhenium	62 Os 190.23 Osmium	63 Ir 192.22 Iridium	64 Pt 195.08 Platinum	65 Au 196.97 Gold	66 Hg 200.59 Mercury	67 Tl 204.38 Thallium	68 Pb 207.2 Lead	69 Bi 208.98 Bismuth	70 Po Polonium	71 At Astatine	72 Rn Radon
87 Fr Francium	88 Ra Radium	89 Ac Actinium	90 Rf Rutherfordium	91 Db Dubnium	92 Sg Seaborgium	93 Bh Bohrium	94 Hs Hassium	95 Mt Meitnerium	96 Ds Darmstadtium	97 Rg Roentgenium	98 Cn Copernicium	99 Nh Nihonium	100 Fl Flerovium	101 Mc Moscovium	102 Lv Livermorium	103 Ts Tennessine	104 Og Oganesson

Atomic number 14
Symbol Si
Atomic mass 28.085
Name Silicon

Atomic masses are not listed for elements with no stable or common isotopes.

57 La Lanthanum	58 Ce Cerium	59 Pr Praseodymium	60 Nd Neodymium	61 Pm Promethium	62 Sm Samarium	63 Eu Europium	64 Gd Gadolinium	65 Tb Terbium	66 Dy Dysprosium	67 Ho Holmium	68 Er Erbium	69 Tm Thulium	70 Yb Ytterbium
89 Ac Actinium	90 Th Thorium	91 Pa Protactinium	92 U Uranium	93 Np Neptunium	94 Pu Plutonium	95 Am Americium	96 Cm Curium	97 Bk Berkelium	98 Cf Californium	99 Es Einsteinium	100 Fm Fermium	101 Md Mendelevium	102 No Nobelium

EXAMPLE ITEMS Science 6 Pre-AP, Sem 2



Use the picture to answer the next question.

Cell



Source: slidesharecdn.com

- 1** Which type of cell is shown?
 - A** Eukaryotic
 - B** Plant
 - C** Prokaryotic
 - D** Viral

- 2** All organisms are —
 - A** multicellular
 - B** unicellular
 - C** either multicellular or unicellular
 - D** unicellular at birth and multicellular during growth

- 3** Which characteristic is not used to classify organisms into kingdoms?
 - A** Prokaryotic or eukaryotic
 - B** Unicellular or multicellular
 - C** Mode of reproduction
 - D** Species or class

EXAMPLE ITEMS Science 6 Pre-AP, Sem 2

4 Which body system acts as a barrier to protect the body from the outside world?

- A Excretory system
- B Integumentary system
- C Muscular system
- D Skeletal system

5 Plant responses to a lack of water do not include —

- A closing of the stomata
- B wilting of the plant
- C production of a new water source
- D production of an internal stimulus

6 Jelisa created two tables that compared cell structure and function to organism system and function.

Cell Structure and Function	
Nucleus	Controls all processes
?	Breaks down molecules for energy

Organism System and Function	
Nervous	Sends and receives messages
Digestive	Breaks down food for nutrients

Which term completes her cell table?

- A Cytoplasm
- B Mitochondria
- C Ribosome
- D Vacuole

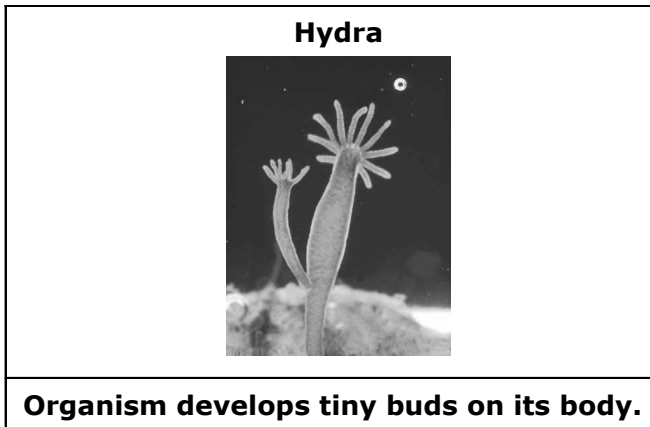
7 Which statement about vacuoles in plant and animal cells is correct?

- A Vacuoles in plant and animal cells store only water.
- B Vacuoles are only found in plant cells and store small amount of water and waste.
- C Vacuoles in a plant cell are larger than animal cells because plants store more water and waste.
- D Vacuoles in animal cells are larger than plant cells because animals store more water and less waste.

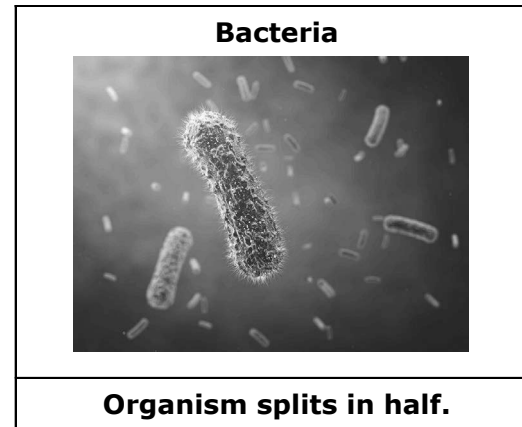
EXAMPLE ITEMS Science 6 Pre-AP, Sem 2



Use the pictures to answer the next question.



Source: 3almal7yoan.com



- 8** Which statement correctly explains the offspring of these organisms?
- A** Hydra reproduction is asexual, and the offspring are genetically different from its parent.
 - B** Bacteria reproduction is sexual, and the offspring are genetically identical.
 - C** Each offspring produced is genetically diverse from its parent.
 - D** Each offspring is produced by asexual reproduction.

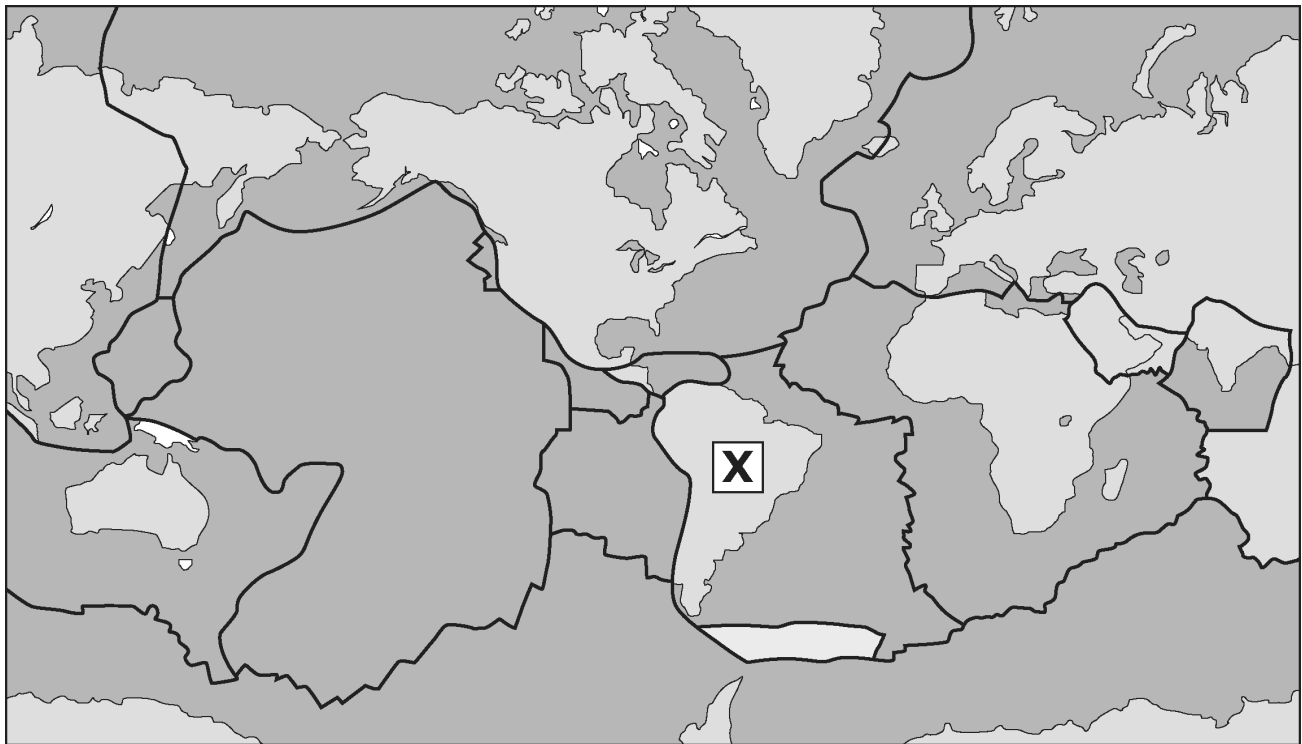
- 9** Inherited traits are controlled by material —
- A** packaged in the golgi bodies
 - B** excreted from the ribosomes
 - C** found in the chromosomes
 - D** carried by the endoplasmic reticulum

- 10** In a plant, a leaf is which level of organization?
- A** Cell
 - B** Organ
 - C** Organ system
 - D** Tissue

EXAMPLE ITEMS Science 6 Pre-AP, Sem 2



Use the map to answer the next question.



Source: teacherspayteachers.com

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Which tectonic plate is represented with an **X**?

- A African
- B Eurasian
- C South American
- D North American

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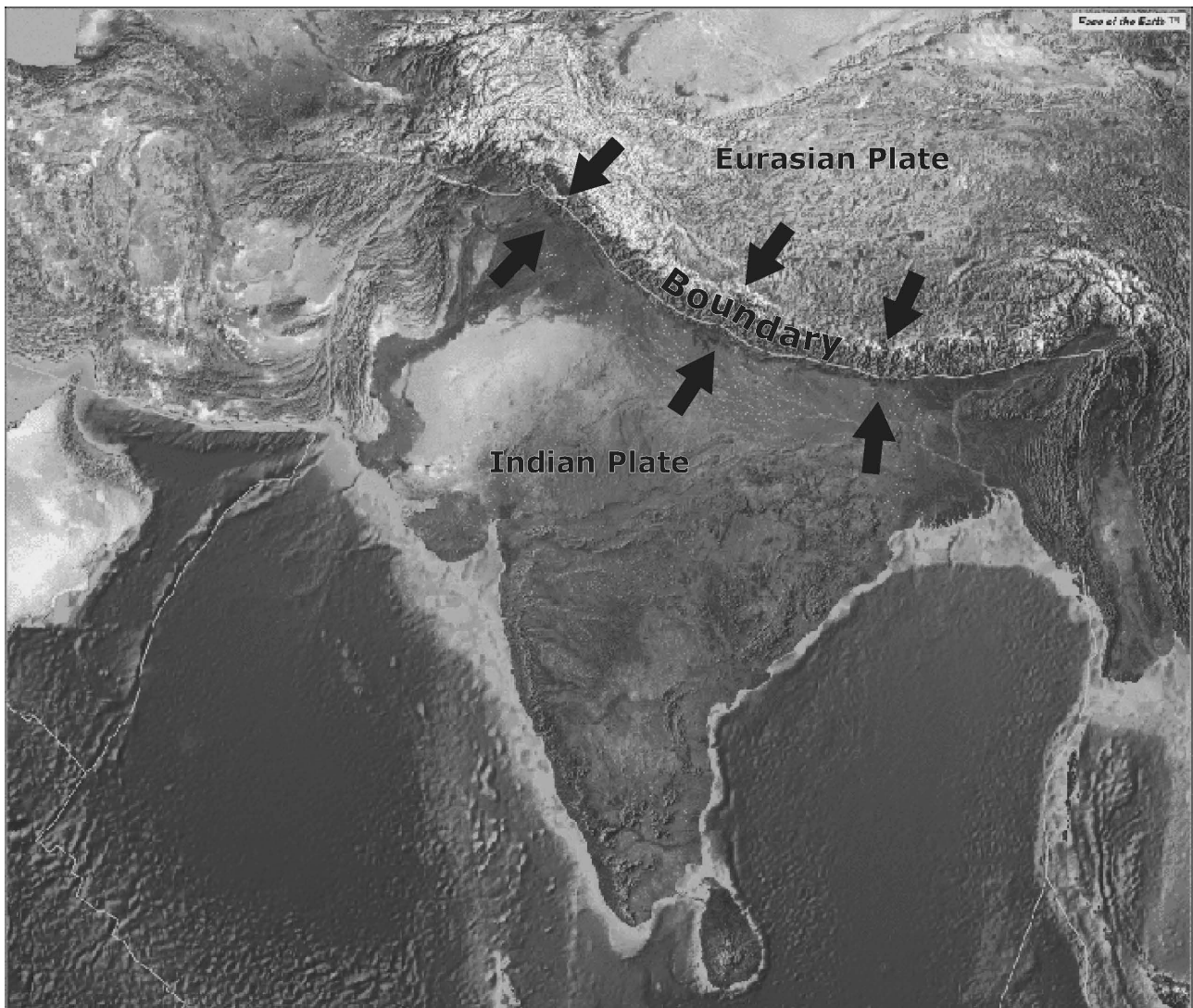
The process to form metamorphic rocks requires —

- A heat and pressure
- B melting magma
- C fragments of sediment
- D compaction and cementation

EXAMPLE ITEMS Science 6 Pre-AP, Sem 2



Use the map to answer the next question.



Source: geologylearn.blogspot.com

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Which geological event occurs at the plate boundary on the map?

- A Subduction zone building
- B Mountain building
- C Rift valley creation
- D Mid-ocean ridge creation

EXAMPLE ITEMS Science 6 Pre-AP, Sem 2

14 Which statement is correct about organic compounds or inorganic compounds?

- A Organic compounds contain carbon atoms bonded to hydrogen atoms.
- B Organic compounds contain sodium atoms bonded to hydrogen atoms.
- C Inorganic compounds contain a chain of oxygen atoms.
- D Inorganic compounds contain a chain of carbon atoms.

15 Juan created the table shown to describe the processes of digestion in the body.

Process	Digestion Descriptions
1	The enzymes in the mouth break down food to begin chemical digestion within the body.
2	The churning of the stomach chemically changes food into chyme.
3	Enzymes are secreted into the small intestines to complete the chemical breakdown of chyme.
4	Digestion is completed in the small intestines when nutrients are absorbed into the blood.

To correct the table, Juan should change —

- A Process 1, because chemical digestion does not begin in the mouth
- B Process 2, because the churning of food by the stomach is a physical change
- C Process 3, because chemical digestion is completed in the large intestine
- D Process 4, because absorption of nutrients into the blood is physical digestion

EXAMPLE ITEMS Science 6 Pre-AP Key, Sem 2

Item#	Key	SE	Process Skills	SE Justification
1	A	6.12B	6.3B	Recognize that the presence of a nucleus determines whether a cell is prokaryotic or eukaryotic.
2	C	6.12A	--	Understand that all organisms are composed of one or more cells.
3	D	6.12D	--	Identify the basic characteristics of organisms, including prokaryotic or eukaryotic, unicellular or multicellular, and mode of reproduction, that further classify them in the currently recognized Kingdoms.
4	B	7.12B	--	Identify the main functions of the systems of the human organism, including the, skeletal, muscular, excretory, and integumentary.
5	C	7.13B	--	Describe and relate responses in organisms that may result from internal stimuli that allow them to maintain balance.
6	B	7.12E	--	Compare the functions of a cell to the functions of organisms.
7	C	7.12D	--	Differentiate between structure and function in plant and animal cell organelles, including vacuole.
8	D	7.14B	--	Compare the results of uniform or diverse offspring from sexual reproduction or asexual reproduction.
9	C	7.14C	--	Recognize that inherited traits of individuals are governed in the genetic material found within chromosomes.
10	B	7.12C	--	Recognize levels of organization in plants and animals, including cells, tissues, organs, and organ systems.
11	C	6.10C	--	Identify the major tectonic plates, including Eurasian, African, North American and South American.
12	A	6.10B	--	Classify rocks as metamorphic by the processes of their formation.
13	B	6.10D	6.10D	Describe how plate tectonics causes major geological events such as mountain building.
14	A	7.6A	--	Identify that organic compounds contain carbon and other elements such as hydrogen.
15	B	7.6B	--	Distinguish between physical and chemical changes in matter in the digestive system.