

Example Items

Science 7

Science 7 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 Assessment.dallasisd.org.

OR

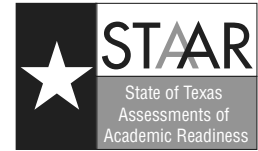
(2) To submit directly, click “Example Feedback” **after** you login to the [Assessment website](#).

First Semester

2018–2019

Code #: 3071

STAAR GRADE 8 SCIENCE REFERENCE MATERIALS



FORMULAS

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

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

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

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

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

$$F = ma$$

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 La 138.91 Lanthanum	58 Ce 140.12 Cerium	59 Pr 140.91 Praseodymium	60 Nd 144.24 Neodymium	61 Pm Promethium	62 Sm 150.36 Samarium	63 Eu 151.96 Europium	64 Gd 157.25 Gadolinium	65 Tb 158.93 Terbium	66 Dy 162.50 Dysprosium	67 Ho 164.93 Holmium	68 Er 167.26 Erbium	69 Tm 168.93 Thulium	70 Yb 173.05 Ytterbium	71 Lu 174.97 Lutetium	72 Hf 178.49 Hafnium														
87 Fr Francium	88 Ra Radium	89 Ac Actinium	90 Th 232.04 Thorium	91 Pa 231.04 Protactinium	92 U 238.03 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	103 Lr Lawrencium	104 Rf Rutherfordium	105 Db Dubnium	106 Sg Seaborgium	107 Bh Bohrium	108 Hs Hassium	109 Mt Meitnerium	110 Ds Darmstadtium	111 Rg Roentgenium	112 Cn Copernicium	113 Nh Nihonium	114 Fl Flerovium	115 Mc Moscovium	116 Lv Livermorium	117 Ts Tennessine	118 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.

Lanthanide Series

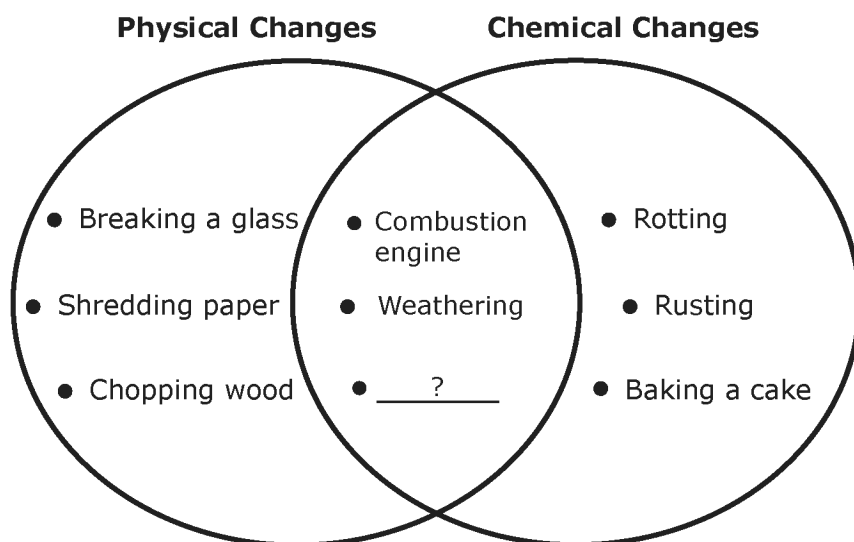
Actinide Series

Source: International Union of Pure and Applied Chemistry

EXAMPLE ITEMS Science 7, Sem 1



Use the Venn diagram to answer the next question.



1 What best completes the Venn diagram?

- A Boiling water
- B Burning a candle
- C Cooking an egg
- D Melting an ice cube

2 Which body system has functions that are similar to power lines in a city?

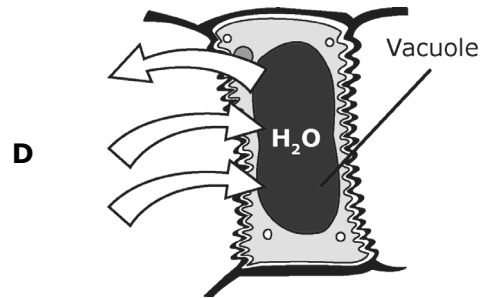
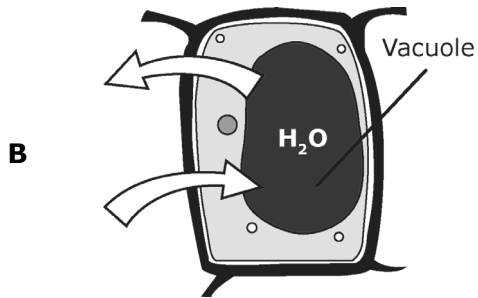
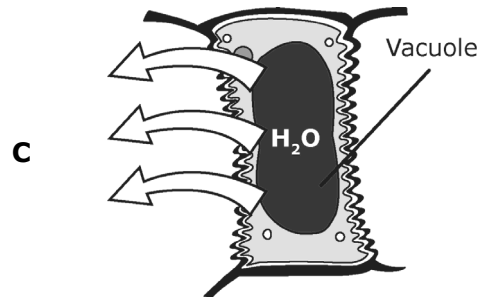
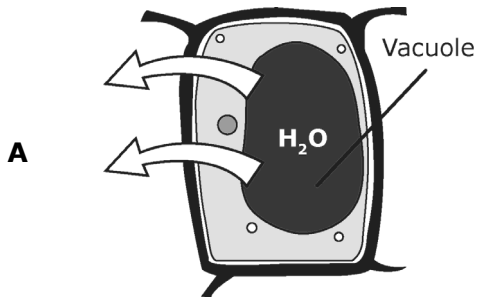
- A Circulatory
- B Excretory
- C Muscular
- D Nervous

3 According to the levels of organization in plants and animals, the smallest unit of the organizational structure is the —

- A cell
- B organ
- C organism
- D tissue

EXAMPLE ITEMS Science 7, Sem 1

4 Which image represents the direction of water flow when turgor pressure is present?



5 Functions that are similar for both cells and organisms include —

- A** needing exercise to get stronger
- B** needing rest when they become tired
- C** releasing hormones to go through puberty
- D** using nutrients and oxygen for energy

6 Which organelle is found only in plants?

- A** Cell membrane
- B** Cell wall
- C** Cytoplasm
- D** Vacuole

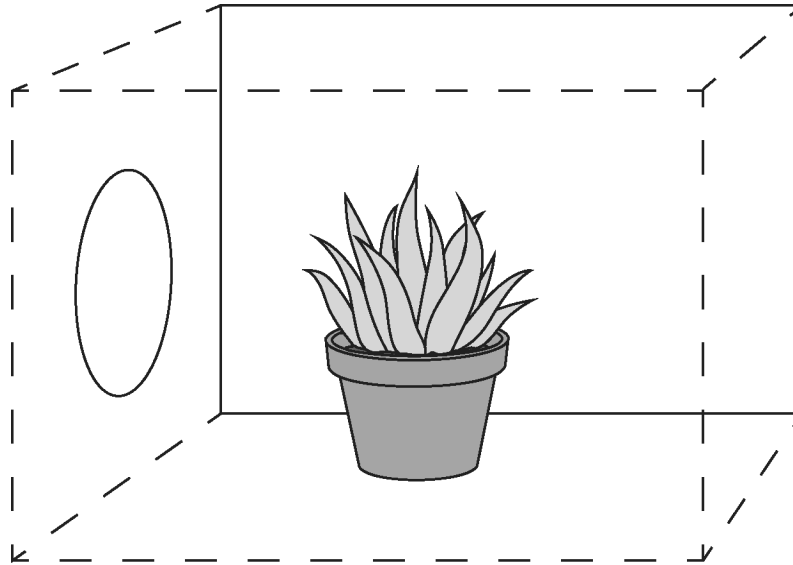
EXAMPLE ITEMS Science 7, Sem 1

7 A fever is a body's response to infection that helps it to survive. A fever raises the body's temperature —

- A** to increase inflammation around the infection
- B** when it is cold outside so a person doesn't freeze
- C** and causes vomiting to get rid of poisonous food
- D** to kill bacteria and viruses that can't survive high temperatures



Use the picture to answer the next question.



8 A teacher conducted an experiment with a plant placed inside a box. The box was completely closed with the exception of a hole on the left side. After two days, the plant —

- A** grew away from the hole
- B** leaned toward the hole to grow
- C** died because it did not get enough light
- D** stopped growing because the box was dark

EXAMPLE ITEMS Science 7, Sem 1

9 In what part of an animal's cell is information for inherited traits such as eye color and height found?

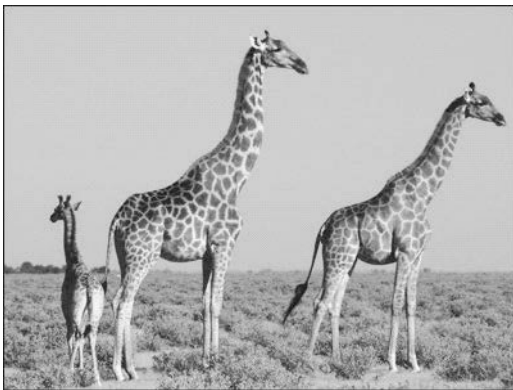
- A** Cell wall
- B** Mitochondria
- C** Nucleus
- D** Vacuole

10 According to cell theory, all organisms must —

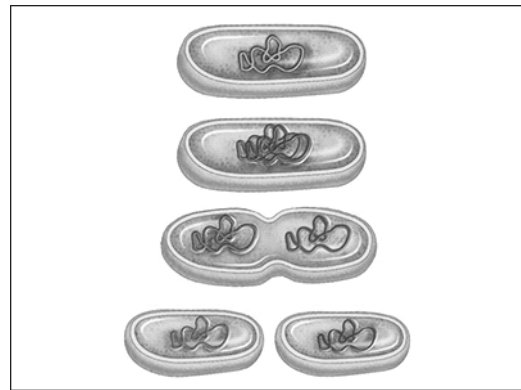
- A** complete photosynthesis
- B** extract energy from food
- C** make their own food
- D** have a cell wall

11 Which organisms produce offspring with the least genetic diversity?

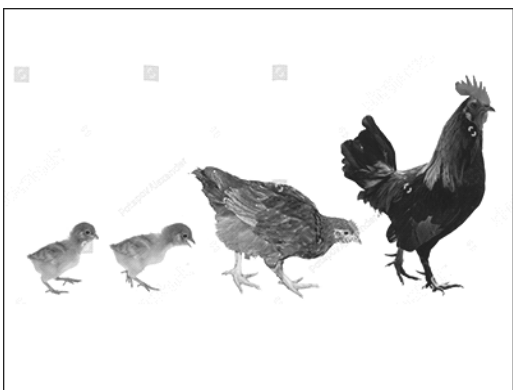
A



C



B



D

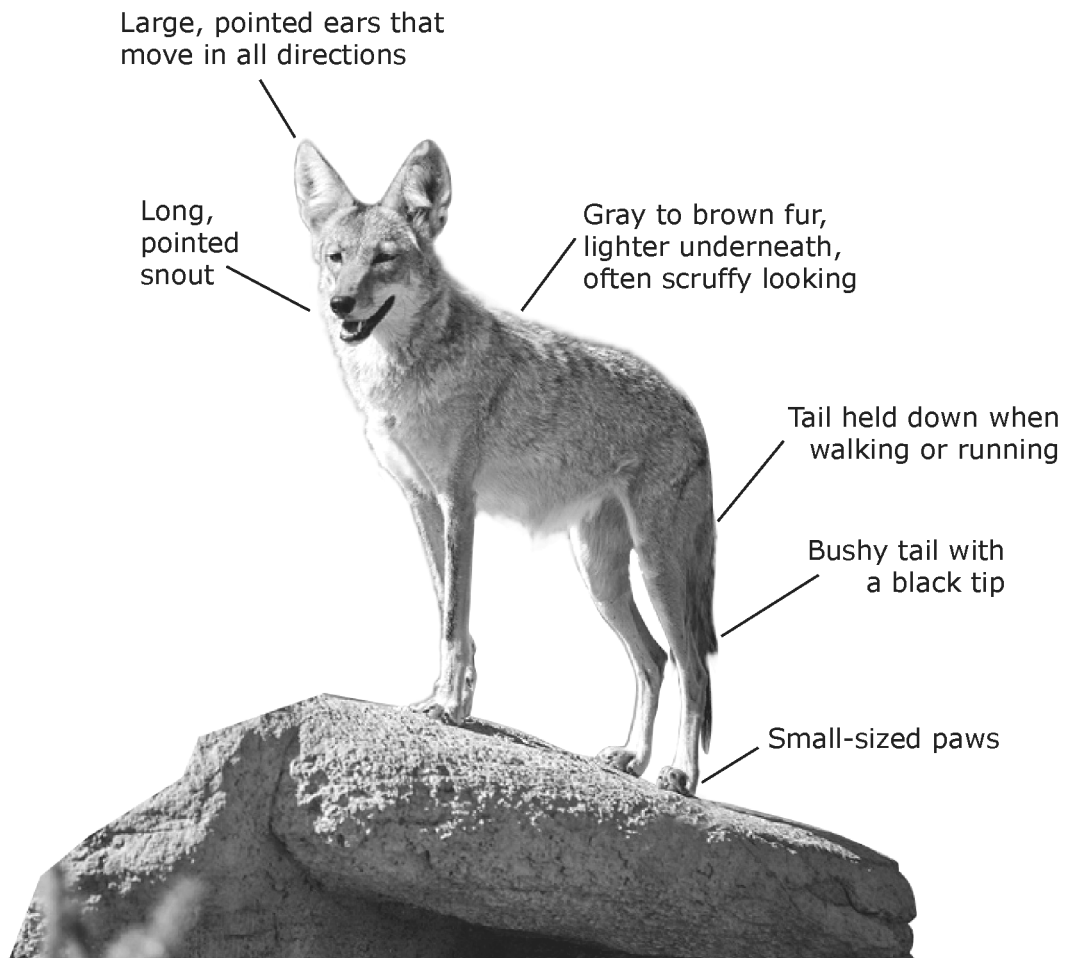


EXAMPLE ITEMS Science 7, Sem 1



Use the picture to answer the next question.

Coyote
Canis latrans



12 Which trait is learned and not inherited through genes?

- A** Gray to brown fur, lighter underneath, often scruffy looking
- B** Large, pointed ears that move in all directions
- C** Tail held down when walking or running
- D** Small-sized paws

EXAMPLE ITEMS Science 7 Key, Sem 1

Item#	Key	SE	Process Skills	SE Justification
1	B	7.6	--	Distinguish between physical and chemical changes in matter.
2	D	7.12B	--	Identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems.
3	A	7.12C	--	Recognize levels of organization in plants and animals, including cells, tissue, organs, organ systems, and organisms.
4	B	7.7B	--	Illustrate forces that affect motion in everyday life such as...turgor pressure.
5	D	7.12E	--	Compare the functions of cell organelles to the functions of organisms such as waste removal.
6	B	7.12D	--	Differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.
7	D	7.13B	--	Describe and relate responses in organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance.
8	B	7.13A	7.2E	Investigate how organisms respond to external stimuli found in the environment such as phototropism.
9	C	7.14C	--	Recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus.
10	B	7.12F	--	Recognize the components of cell theory.
11	C	7.14B	--	Compare the results of uniform or diverse offspring from sexual reproduction or asexual reproduction.
12	C	7.14A	--	Define heredity.