

SKILLS LIST and SAMPLE ITEMS

FOR

PRACTICE TEST FOR SCIENCE, GRADE 11

(Test items developed for skills measured in LA03)

Skills

- | | |
|---|---|
| 1.0 Science Inquiry | 4.0 Earth and Space Science |
| 1.1 Problem Solving | 4.1 Energy and the Earth System |
| 1.2 Understanding Scientific Inquiry | 4.2 Geochemical Cycles |
| 2.0 Physical Science | 4.3 Origin and Evolution of Earth System |
| 2.1 Measurement and Symbolic Representation | 4.4 Origin and Evolution of Universe |
| 2.2 Structure of the Atom | 5.0 Science and the Environment |
| 2.3 Properties of Matter | 5.1 Ecological Systems, Interactions |
| 2.4 Chemical Reactions | 5.2 Resources and Resource Management |
| 2.5 Forces and Motion | 5.3 Environmental Awareness, Protection |
| 2.6 Energy | 5.4 Personal Choices, Responsible Actions |
| 2.7 Interactions of Energy and Matter | |
| 3.0 Life Science | |
| 3.1 The Cell | |
| 3.2 Molecular Basis of Heredity | |
| 3.3 Biological Evolution | |
| 3.4 Interdependence of Organisms | |
| 3.5 Living Systems | |
| 3.6 Organisms | |
| 3.7 Personal and Community Health | |
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Number of questions: 40

Number of pages: 9

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(OVER)

**LA03 PRACTICE TEST IN SCIENCE - GRADE 11
FORM A**

Read each question and then mark the best answer on your answer sheet.

1. Individuals who choose to commute to work instead of riding alone
 - A. increase pollution and smog
 - B. conserve fossil fuels
 - C. increase traffic congestion
 - D. increase taxes for employers and employees

2. One major ecological system is characterized by an absence of trees and the presence of dwarf plants and soils that are usually permanently frozen starting at a depth of a few centimeters to one meter or more. There are low levels of precipitation but the biome is often waterlogged because of low rates of evapotranspiration. Some herbivores in this biome include caribou, musk, ox, and lemmings.

Which ecological system does this describe?

 - A. tundra
 - B. chaparral
 - C. desert
 - D. grassland

3. The development of Louisiana as a land mass is a relatively recent event compared to the age of the Earth. But Louisiana has an abundance of oil and gas reservoirs. What is the primary source for the creation of petroleum?
 - A. plant life
 - B. bodies of salt water
 - C. microscopic marine life in sediments
 - D. dinosaur fossils in rocks

4. Before humans arrived over 40,000 years ago, Australia had more than 100 species of kangaroos, koalas, and other marsupials but none of the more advanced placental mammals such as dogs, cats, bears, and horses. Land mammals were entirely absent from the even more isolated islands that make up Hawaii and New Zealand. Each of these places had a great number of plant, insect, and bird species that were found nowhere else in the world. What is the most likely explanation for the existence of these mostly unique biotic environments?
 - A. The life forms in these areas have been evolving in isolation from the rest of the world for millions of years.
 - B. Conditions in Australia, Hawaii, and New Zealand were not favorable for survival of land mammals.
 - C. All of the land mammals migrated to other areas of the world millions of years ago.
 - D. Australia, Hawaii, and New Zealand are relatively young land masses that have not existed long enough for mammals to thrive.

5. Aerobic exercise is recommended especially for
 - A. digestive health
 - B. respiratory health
 - C. pancreatic health
 - D. cardiovascular health

6. Cooking and food preparation involves many chemical reactions and physical changes. The chemical reaction involved in beating eggs to form meringue is
 - A. pH change
 - B. denaturation of proteins
 - C. dehydration
 - D. oxidation