

ORANGE PUBLIC SCHOOLS
OFFICE OF CURRICULUM AND INSTRUCTION
OFFICE OF SCIENCE

**GRADE 7
SCIENCE**
Pre-Assessment
Unit 1

Directions, Answer Key, and Scoring Guide



School Year 2014-2015

Grade 7 Pre Assessment – School year 2014-2015
Directions, Answer Key, and Scoring Rubrics

Before the Test

Students need: A copy of the examination (consumable)
 Scrap Paper
 One or more No. 2 pencils

During the Test: Students should have a minimum of 45 minutes to complete the test. At the teacher's discretion, the test may be administered in one or two sessions. In addition, the performance portion of the test may be given to a portion of the class while the reminder of the class is working on the written portion.

After the Test: Student scores should be calculated as follows:

Grade7 Pre-assessment Answer Guide

1. ANS: D 2 pts
2. ANS: E 2 pts
3. ANS: B 2 pts
4. ANS: C 2 pts
5. ANS: A 2 pts

6. ANS: E 2 pts
7. ANS: C 2 pts
8. ANS: B 2 pts
9. ANS: D 2 pts
10. ANS: A 2 pts

11. ANS:

Code	If the student writes:
2	Living things are grouped into populations. Populations of different types of living things are grouped into communities. Different communities form ecosystems, which make up the biosphere
1	Gives a partial response.
0	If the students response is off focus or makes no attempt

12. ANS:

Code	If the student writes:
2	Photosynthesis happens when a plant uses the Sun's energy to turn water and carbon dioxide into food. Sugars and oxygen are produced by plants as a result of photosynthesis.
1	Gives a partial response.
0	If the students response is off focus or makes no attempt

13. False one 2 pts
14. True 2 pts
15. True 2 pts
16. False plant 2 pts

17. Ans.

Code	If the student writes:
4	The cell in the diagram is a prokaryotic cell because it does not have a nucleus and the DNA is found in the cytoplasm. Prokaryotic cells are much smaller than eukaryotic cells. They do not contain a nucleus. Their organelles are not membrane covered, and their DNA is bunched up in the middle of the cell. Only bacteria have prokaryotic cells. Eukaryotic cells have a nucleus, where their DNA is found. Their organelles are membrane-covered. Plants, animals, fungi, and protozoans have eukaryotic cells.
3	Is missing one part of the response. The cell in the diagram is a prokaryotic cell because it does not have a nucleus and the DNA is found in the cytoplasm. Prokaryotic cells are much smaller than eukaryotic cells. They do not contain a

	nucleus. Their organelles are not membrane covered, and their DNA is bunched up in the middle of the cell. Only bacteria have prokaryotic cells. Eukaryotic cells have a nucleus, where their DNA is found. Their organelles are membrane-covered. Plants, animals, fungi, and protozoans have eukaryotic cells.
1	Gives a one part of the response.
0	If the students response is off focus or makes no attempt

18. Ans.

Code	If the student writes:
2	There are more mitochondria found in a muscle cell than a skin cell because muscle cells need more energy than skin cells to do their jobs. Since mitochondria produce energy for the cell, muscle cells would need more of these organelles.
1	Gives a partial response.
0	If the students response is off focus or makes no attempt

19. Ans.

Code	If the student writes:
3	<i>Answers may vary.</i> Correct answers include: Unlike the animal cell, the plant cell has three parts that animal cells do not have. Plant cells have chloroplast to make food from the sun's energy. Plant cells also have a cell wall. It provides structure and support for the cell. Finally plant cells have a large central vacuole to store cell sap, water and food.
2	Gives two out of three differences.
1	Gives only one difference.
0	If the students response is off focus or makes no attempt

- 20. cell membrane 2 pt
- 21. osmosis 2 pts
- 22. active transport 2 pts
- 23. respiration 2 pts.
- 24. photosynthesis 2 pts
- 25. chloroplasts 2 pts

Grading Guide:

Maximum 53 pts = 100.17% Therefore, each point is worth 1.89. Total up student points, multiply it by 1.89 and you will have their percentage.