Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mr. Schmidt Science 8

asteroid meteorite zircon Canadian shield craton differentiation

Laurentia microcontinent Precambrian shield banded-iron formation

cyanobacteria red bed stromatolite amino acid Ediacaran biota

eukaryote prokaryote

1. Zircon – very stable and common mineral that scientists often use to age-date old rocks.
2. Canadian shield – name given to Precambrian shield in North America because much of it is exposed in Canada.
3. Prokaryote – unicellular organism that lacks a nucleus.
4. Red bed – a sedimentary rock deposit that contains oxidized iron; provides evidence that free oxygen existed in the atmosphere during the Proterozoic.
5. Cyanobacteria – microscopic, photosynthetic prokaryotes that formed stromatolites and changed early Earth’s atmosphere by generating oxygen.
6. Banded-iron formation – alternating bands of iron oxide and chert; an iron poor sedimentary rock.
7. Eukaryote – organism composed of one or more cells each of which usually contains a nucleus; larger and more complex than a prokaryote.
8. Asteroid – metallic or silica-rich object, 1 km to 950 km in diameter, that bombarded early Earth, generating heat energy; or rocky remnant of the early solar system found mostly between the orbits of Mars and Jupiter in the asteroid belt.
9. Differentiation – process in which a planet becomes internally zoned, with the heavy materials sinking towards the center and the lighter materials accumulating near its surface.
10. Stromatolite – large mat or mound composed of billions of photosynthesizing cyanobacteria that dominated shallow oceans during the Proterozoic.
11. Craton – continental core formed from Archean or Proterozoic microcontinents’ deepest (as far as 200 km into the mantle) and most stable part of the continent.
12. Meteorite – a small fragment of an orbiting body that has fallen to Earth, generating heat; does not completely burn up in Earth’s atmosphere and strikes Earth’s surface, sometimes causing an impact crater.
13. Microcontinent – a small fragment of granite-rich crust formed during the Achean.
14. Laurentia – ancient continent formed during the Proterozoic that is the core of modern-day North America.
15. Precambrian shield – the top of a craton exposed at Earth’s surface.
16. Amino acid – a building block of proteins.
17. Ediacaran biota – fossils of various multicellular organisms from about 630 mya.