Primary Science Reading Comprehension – (Worksheet 11)

Read the scientific article below and circle the letter of the correct answers to the questions about it.

Understanding The Universe

The Universe is us everything around us. It includes all of time and space. It includes Earth and all of the heavenly bodies in outer space: the planets, the stars, the galaxies, and intergalactic space. It includes all energy and existing matter from the largest stars and galaxies to the smallest subatomic particles. Our universe is estimated to be around 10 billion light years (the distance light travels in a year) in diameter. The universe is around 13.8 billion years old. Scientists believe the universe began with an explosion long ago called “The Big Bang”. This belief about the universe’s birth is called the “Big Bang Theory”. The universe continues to this day to expand as a result of the original “Big Bang” explosion. As the original explosion continued to expand and cool over billions of years, subatomic particles formed and collected into the matter, atoms, planets, stars, galaxies, and heavenly bodies that we know of today. The original explosion of matter and forces that became the universe emerged from a single small point. The original expansion happened at a tremendously fast rate and at a very high temperature. Nanoseconds after the initial explosion, gravity and all the other physical forces were formed. Shortly thereafter, energy transformed into particles of matter. The expansion of the universe is not slowing due to gravity as one might think but instead is accelerating. This surprising acceleration is believed to be due to a mysterious; little understood force called dark energy.

1. How old is the universe?
   a. 10 million years old
   b. 13.8 billion years old
   c. 10 billion light years old

2. The theory of the universe’s birth is called:
   a. The “Universal Theory”
   b. The “Dark Energy Theory”
   c. The “Big Bang Theory”

3. Is the universe expanding or contracting?
   a. Expanding
   b. Neither expanding nor contracting
   c. Contracting

4. The universe at birth started out as:
   a. A single point
   b. A golf ball-sized black hole
   c. An exploding star the size of our own sun

5. How was matter in the universe formed?
   a. Subatomic particles collected together after the “Bang”
   b. Gravity waves attracted and collected dust particles
   c. The heat of the “Bang” melted dust particles together
Key to Primary Science Reading Comprehension – (Worksheet 11)

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