### Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_

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### Multiple Choices

1. ,A SCIENCE PROTOTYPE: RUTHERFORD AND THE \_\_\_\_\_\_\_\_\_\_\_ Ernest Rutherford’s investigations were aimed at understanding a small, but illu- minating, corner of the natural world: the atom.

a.)Scott bauer

b.) Science

c.) Esa

1. ,A discovery may itself be the result of many years of work on a particu- lar problem, as illustrated by Henrietta Leavitt’s stellar discovery … Photo of Spiral Galaxy M81 provided by NASA, ESA, and \_\_\_\_\_\_\_\_\_\_\_ (STScI/AURA); photo of water provided by Andrew Davidhazy.

a.)Nasa

b.) Science

c.) Atom

1. , \_\_\_\_\_\_\_\_\_\_\_ relies on evidence 10 Ultimately, scientific ideas must not only be testable, but must actually be tested—prefer- ably with many different lines of evidence by many different people.

a.)Nasa

b.) Science

c.) Atom

1. ,A SCIENCE PROTOTYPE: RUTHERFORD AND THE \_\_\_\_\_\_\_\_\_\_\_ Ernest Rutherford’s lab tested the idea that an atom’s positive mass is spread out diffusely by firing an alpha particle beam through a piece of gold foil, but the evi- dence resulting from that experiment was a complete surprise: most of the alpha particles passed through the gold foil without changing direction much as expect- ed, but some of the alpha particles came bouncing back in the opposite direction, as though they had struck something dense and solid in the gold foil.

a.)The library of congress

b.) Nasa

c.) Science