

SCIENCE OLYMPIAD

1996 PILOT EVENT

CHEMISTRY CLUE

DESCRIPTION:

In this event, a team's knowledge of chemistry related items and/or concepts will be tested by means of a set of 5 clues which become more specific. The team members should give the correct answer on the earliest clue possible. Guesses too early may result in a wrong answer to all the clues to that item.

PARTICIPANTS: a team of up to 2 students **APPROXIMATE TIME:** 50 minutes

THE COMPETITION:

- The student(s) will receive an answer sheet numbered 1 through 5 for each item or concept presented.
- A clue will be read aloud only one time. Students then have 10 seconds to record their response, if they are ready, beside the number of the clue that was just read. A proctor will then collect the item sheet once the students have answered that item. Answer sheets will be collected after each clue from any team indicating they are ready.

SCORING:

One point will be given for an answer on the first clue, 2 points if on the second, and so forth, thus, low score wins. An incorrect answer or no answer after 5 clues results in 6 points being awarded. Proctors will check to be sure the answer is written beside the correct number or a 6 point penalty will be given.

Ties are broken by determining the team with the greatest number of questions answered on the lowest clue numbers (1 to 5, as needed).

EXAMPLE 1:

- Clue 1 This is a specific type of subatomic particle.
Clue 2 This particle is located in the nucleus and is also a product of beta decay.
Clue 3 Of the two major particles in the nucleus, this one has the slightly smaller mass.
Clue 4 Any change in the number of these particles causes a change in the identity of the element.
Clue 5 This is a positively charged particle in the nucleus.
(Answer: Proton)

EXAMPLE 2:

- Clue 1 Its color is silvery gray and it oxidizes easily.
Clue 2 This metal is very malleable and it may be cut easily with a butter knife.
Clue 3 This metal reacts vigorously with water producing a basic solution.
Clue 4 A purple color is produced in the flame of hydrogen when this metal reacts with water.
Clue 5 The symbol for this metal is K.
(Answer: Potassium)

Regional and State sets of 25-30 items (see examples) are available from:

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