ROCKS AND MINERALS DRAFT RULES 17

1. DESCRIPTION: Teams will demonstrate their knowledge of rocks and minerals.
   A TEAM OF UP TO: 2 APPROXIMATE TIME: 50 minutes
2. EVENT PARAMETERS: Each team may bring one magnifying glass and one three-ring binder of any size containing information in any form and from any source, attached using the available ring(s). The information may be removed during the event. Sheet protectors and laminated sheets are allowed.
3. THE COMPEITITON:
   a. Emphasis will be placed upon the task- oriented activities. Participants will move from station to station, with the length of time at each station predetermined and announced by the event supervisor. Participants may not return to stations, but may change or add information to their original responses while at other stations.
   b. Written descriptions as to how a specimen might react were it to be tested with HCl may be provided. HCl will not be used or provided.
   c. Identification will be limited to specimens appearing on the Official Science Olympiad Rock and Mineral List (see www.SOINC.org), but other rocks or minerals may be used to illustrate key concepts.
   d. Tournament Directors may include up to five additional specimens important to their own state. IF additional specimens are to be included, all teams must be notified no later than three weeks prior to the competition.
4. REPRESENTATIVE TOPICS:
   Minerals:
   a. Identification
   b. Properties: hardness, luster, streak, cleavage/fracture, density, etc.
   c. Classification: see list
   d. Chemical composition
   e. Mineral habit (e.g., botryoidal, hexagonal, prismatic, bladed)
   f. Methods & environments of formation
   g. Economic importance (e.g., ores, industrial uses, jewelry)

   Rocks
   h. Identification
   i. Rock cycle
   j. Classification: sedimentary, igneous and metamorphic
   k. Environments of formation
   l. Texture and composition
   m. Bowen's reaction series
   n. Grade of metamorphism

5. SAMPLE ACTIVITES:
   a. Using the materials provided, fingernails included, determine the relative hardness of each of these six minerals. List the specimens, by name and number, in order of increasing hardness.
   b. Match each metamorphic rick with the parent rock from which is may have been formed.

6. SCORING: Total scores will determine rankings in this event. High score wins. Selected questions will be used to break ties.