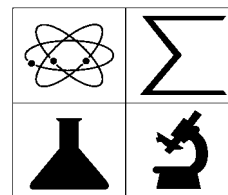


# MESA DAY CONTEST RULES 2003-2004



## Crystal Growing

<b>LEVEL:</b>	Middle/Junior High School
<b>TYPE OF CONTEST:</b>	Individual/Team
<b>COMPOSITION OF TEAMS:</b>	1 - 2 students per team
<b>NUMBER OF TEAMS:</b>	3 teams per Center
<b>SPONSOR:</b>	Vonna Hammerschmitt, Director, CSU Fullerton MSP Center

**OVERVIEW:** Students will grow the largest, best-formed crystal.

**MATERIALS:** Water; any water-soluble compound; beaker or glass jar; thread or string; craftstick or pencil.

**SAFETY NOTE:** This competition uses some hazardous materials. Please exercise caution and when necessary use safety goggles and gloves. Take all other precautions as required (e.g. MSDS).

### **RULES: (Omission of any of these elements will result in disqualification)**

- 1) A Certificate of Eligibility is required, verifying that the crystal was started on or after the contest start date of **July 1, 2003**, (date may be modified for Centers whose preliminaries are held prior to February) and **grown for a maximum of 3 months**.
- 2) All information must be displayed on a standard, freestanding, tri-fold science fair display board.
- 3) A logbook or journal containing observations and measurements during the crystal's growth must be on the display table.

### **Recommendations and Guidelines: (Points will be awarded for the following)**

- 1) Display board should have diagrams or photographs of the crystal in various stages of growth. Diagrams or photos must be labeled with date and number of days into the growing process. Example: November 15, 2003, Day 1; November 24, 2003, Day 9; etc.
- 2) Display board should have a graphic representation of the growth of the crystal with one axis representing the volume of the growing crystal measured in  $\text{cm}^3$  and one axis representing the days of growth.
- 4) The logbook should contain a brief written statement of the procedure and materials used to grow the crystal.

- 5) Entries must be single and separate crystals. **Masses or clumps of crystals will be disqualified.**
- 6) An identification and illustration of lattice type should be included on the display board.

**JUDGING:**

- 1) A crystal will be judged by size, regularity of shape, clarity, and beauty using a scale of 1 – 5 for each (5 being outstanding and 1 being minimal) for a total of 20 points possible.
- 2) Display boards and logbooks will be collectively awarded 1 - 6 points, depending on completeness. To receive maximum points, logbooks must contain procedures, materials, lattice illustration as well as observations throughout the growth of the crystal. The display board should contain graphs and photos or drawings. Total points possible for logbook and display board combined are 6.
- 3) Points awarded for crystal judging and display board/logbook judging will be combined to determine a **total score**. Highest total score will determine the winner.
- 4) In the event of a tie, duplicate awards will be given.

**AWARDS:** Awards will be given for 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place.

**ATTACHMENTS:** Official Entry Form / Certificate of Eligibility

**OFFICIAL EVALUATION FORM FOR CRYSTAL GROWING CONTEST**  
Senior High School

**Student(s)** \_\_\_\_\_  
**School** \_\_\_\_\_  
**MESA Center** \_\_\_\_\_

***CERTIFICATE OF ELIGIBILITY***

**With our signatures below, we certify that this crystal growing entry was started on or after the contest start date of July 1, 2003.**

*Student Signature(s):* \_\_\_\_\_

*Advisor's Signature:* \_\_\_\_\_

*Actual Start Date:* \_\_\_\_\_

*Actual Ending Date:* \_\_\_\_\_

**For Judges' Use Only**

**Crystal:** Total of 20 points possible, 1-5 for each characteristic (1 = minimal, 5 = outstanding).

Characteristic	Points Awarded (1-5)
Size	
Regularity of Shape	
Clarity	
Beauty	
<b>TOTAL POINTS</b>	

**Logbook and Display Board:** Total of 6 points possible, 0-1 point for each item.

Logbook and Display Board Elements	Points Awarded
Logbook contains procedures	
Logbook lists materials	
Logbook contains observation of crystal growth throughout the growing period	
Display board has graph representing growth as outlined in Rule #4	
Display board has photos or drawings	
Identification and illustration of lattice	
<b>TOTAL POINTS</b>	

**TOTAL FOR CRYSTAL, LOGBOOK AND DISPLAY BOARD** \_\_\_\_\_

Comments or Reasons for Disqualification: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Signatures of Judges:** \_\_\_\_\_