Minutes of the 5th Meeting of the
National Congress on Science Education
Bozeman, Montana
July 7-11, 2004

Call to Order - The meeting was called to order by NSTA Retiring President, John Penick at 8:35am on Thursday, July 7, 2004.

Report of the Credentialing Committee – Anne Tweed, NSTA President, reported the following information regarding the 2004 NCSE attendees:
- Chapter Delegates – 39
- Assoc. Group Delegates - 4
- Chapter Alternates - 22
- Assoc. Group Alternates - 1
- Total # of Registrants - 116
- Total Number Present – 126

Adoption of Operating Policies - Section 5 of the Congress Operating Policies - should be corrected to read: three (3) District Directors members of the Council who shall be elected...

7/04CNG1 Moved by Lloyd Barrow to approve the operating policies as corrected. Passed

Adoption of Agenda

7/04CNG2 Moved by Charles Baldwin to approve the agenda. Passed

Approval of Minutes There being no changes to the July 2003 minutes, they stand as submitted.

Request for Additional Focus Groups – There were no request for additional focus groups. Following are the 2004 focus groups.

The Highly Qualified Teacher and Professional Development
Facilitator: Joyce Tugel, NSTA Director, Professional Development
Leader: Shelley Lee, Science Consultant, WI Department of Public Instruction

The Highly Qualified Teacher and Science Content Knowledge
Facilitator: Jean May-Brett, District VII Director
Leader: Melody Orban, District II Director

The Highly Qualified Teacher and Pedagogical Content Knowledge
Facilitator: Linda Crow, SCST President
Leader: Dee Goldston, CESI President

The Highly Qualified Teacher Recruiting, Retaining, Recognizing
Facilitator: Jack Rhoton, NSELA President
Leader: Jack Cooper, President, Science Teachers Association Of Texas
Focus Group Resolutions – The following resolutions arose from the focus groups:

Proposed by the Science Teachers of Missouri

7/04CNG3 Be it resolved that the National Science Teachers Association (NSTA) update the teaching of evolution position statement to address the intelligent design movement. **Passed**

Proposed by the South Dakota Science Teachers Association

7/04CNG4 Be it resolved that the NCSE encourage the National Science Foundation to continue the pursuit and financial support of the National Underground Laboratory program, which is so vital to physics research in the United States. **Passed**

Proposed by the Focus Group: The Highly Qualified Teacher and Professional Development

7/04CNG5 Be it resolved that NCSE affirms that professional conferences are integral and valid parts of a PDP of a highly qualified teacher. **Passed Unanimously**

7/04CNG6 Be it resolved that NSTA develop a resource packet that provides guidance for CAGS in structuring and promoting conferences as an integral part of a professional development plan for the development and sustainability of a highly qualified science educator. **Passed Unanimously**

7/04CNG7 Be it resolved that in order for teachers to fulfill their professional development plans with valid and high quality PD opportunities, the NCSE requests that CAGS gather information about all relevant professional development opportunities in their state/region and disseminate this information to all science educators in their state. **Passed Unanimously**

7/04CNG8 Be it resolved that NSTA will develop a position statement addressing the interrelationships between science, mathematics, and language arts and its implications for PreK-16 science instruction and professional development. **Passed Unanimously**
Proposed by the Focus Group: The Highly Qualified Teacher and Science Content Knowledge

7/04CNG9 Be it resolved that the National Congress on Science Education advocate that all elementary preservice teachers should successfully complete at least one physical science, one life science, and one earth/space science course that are inquiry-based and include a lab component that addresses the content as articulated in the NSES for the elementary level. **Passed**

7/04CNG10 Moved by Sandy Pace to reconsider. **Motion defeated.**

7/04CNG11 Be it resolved that the National Congress on Science Education advocate that all middle level preservice science teachers should be required to successfully complete a minimum of thirty semester (or equivalent) credit hours of science content courses to include at least one physical science, one life science, and one earth/space science course that are inquiry-based and include lab components that address the content as articulated in the NSES for the middle level. **Passed**

7/04CNG12 Be it resolved, therefore, that the NCSE advocate the position that highly qualified are those teachers who possess an integrated knowledge of four areas: 1) subject matter; 2) teachers and teaching; 3) learners and learning; and 4) the context or setting in which they work. **Passed**

7/04CNG13 Be it resolved that NSTA develop a clear and concise definition of pedagogical content knowledge (PCK) to help guide professional development programs at local, state, and national levels. **Passed**

Proposed by the Focus Group: The Highly Qualified Teacher Recruiting, Retaining, Recognizing

7/04CNG14 Be it resolved that NSTA advocate funding from the federal government for data driven research on recruiting and retaining Highly Qualified preK-12 teachers of science by launching in-depth research and development efforts (that include innovative models), building on what is known about the compensations, preparation, and support that teachers of science need. **Passed**

7/04CNG15 Be it resolved that CAAGS lobby and advocate their state boards of education and other leaders for fully-funded implementation of induction and mentoring programs for entry-level teachers of science for the first three to five years of their careers. **Passed**

7/04CNG16 Be it resolved that CAAGS advocate state and local boards of education to change the culture of teaching by implementing models of staffing designs for the classroom teacher of science that allow for differentiated opportunities for advancements in order to retain those who are Highly Qualified teachers of science. **Passed**

Proposed by the Focus Group: The Highly Qualified Teacher and Assessment and Accountability
7/04CNG17  Be it resolved NCSE advocate that all teachers use clearly defined assessments that embed higher order thinking skills, and lab based performance components which include inquiry, manipulation of materials and problem solving skills. Passed Unanimously

7/04CNG18  Be it resolved that the National Congress on Science Education recommends that the CAAGs encourage their members’ involvement in the development of assessments at all levels. Said involvement may include such activities as: CAAGs disseminating information on assessment development opportunities, and urging their members to contact and educate stakeholders on the necessity of teacher involvement in the assessment development process. Passed Unanimously

7/04CNG19  Be it resolved that NSTA develop an on-going professional development program on assessment that might include:
- Knowledge of research-based assessment models;
- Emphasis on the “Quality Criteria for Assessment Development” (Buros Institute in Nebraska);
- Examples of effective science assessment methods;
- Emphasis on the analysis of assessment data.

Passed Unanimously.

Proposed by the Focus Group: The Highly Qualified Teacher and Equity, ESL, Diversity Issues

7/04CNG20  Be it resolved that NSTA supports the identification and dissemination of effective PreK-16 instructional models that have proven to increase academic achievement among diverse populations. Passed Unanimously

7/04CNG21  Be it resolved that NSTA place a greater emphasis (such as through conferences, publications, and on-line courses) on how to match instructional strategies to the special needs of individual students. Passed Unanimously

7/04CNG22  Be it resolved that the NCSE advocates to differentiate instruction based on the authentic quantitative analysis of student achievement data. Passed

7/04CNG23  Be it resolved that the Congress advocates the creation and development of a study to identify best practices in science instruction as it relates to equity, ESL, and diversity issues for PreK–16. Passed

2005 Planning Committee  The following individuals were elected to serve on the 2005 Congress Committee:

Vanessa Westbrook, Science Teachers Association of Texas
Nancy Bennett, New Jersey Science Teachers Association
John Olson, Minnesota Science Teachers Association

Summary  The Congress resolutions were discussed by both the Council and Board of.
Session Directors. Following are the resolutions with the final wording as passed/defeated by the Board:

7/04BOD3 Moved by Patricia Simmons in response to CCL5 & CNG4 that NSTA explore the feasibility of developing a resource packet that provides guidance for CAGS in structuring and promoting conferences as an integral part of a professional development plan for the development and sustainability of a highly qualified science educator. **Motion carried.**

7/04BOD4 Moved by Joyce Tugel in response to CCL12 & CNG6 that NSTA develop a position statement addressing science as a part of the PreK-12 core curricula recognizing its connections to mathematics and language arts. **Motion Carried.**

7/04BOD5 Moved by Rene Carson in response to CCL7 & CNG10 that NSTA develop a conceptual definition of science-specific pedagogical content knowledge (PCK) with implications for classroom practice and Professional Development programs at local, state, and national levels. **Motion defeated.**

7/04BOD6 Moved by Patricia Simmons in response to CCL8 & CNG11 that NSTA advocate funding from the federal government for data driven research on recruiting and retaining Highly Qualified preK-12 teachers of science by launching in-depth research and development efforts (that include innovative models), building on what is known about the compensations, preparation, and support that teachers of science need. **Motion carried.**

7/04BOD7 Moved by Joyce Tugel in response to CCL9 & CNG16 that NSTA examine the feasibility of developing an ongoing professional development program on assessment that might include:
- Knowledge of research-based assessment models;
- Emphasis on the “Quality Criteria for Assessment Development” (Buros Institute in Nebraska);
- Examples of effective science assessment methods;
- Emphasis on the analysis of assessment data. **Motion carried.**

7/04BOD8 Moved by Cherry Brewton in response to CCL11 & CNG18 that NSTA continue to place special emphasis (such as through conferences, publications, and on-line courses) on how to match instructional strategies to the special needs of individual students. **Motion carried.**