General Strategies for Accommodating Students with Special Needs in Science

- Preparation for experience in the learning environment best occurs when all students of different backgrounds and abilities learn and socialize together in classrooms and other school settings. In these instances where all have a chance to achieve and receive instruction designed to develop and enhance successful living within the school and general community.
- Never assess a student's capabilities solely on the basis of their IQ or other standardized test scores (especially at the limits of the IQ definition).
- After some time in the learning environment, which includes a mentally involved student, the teacher, as an observer, should record the behavior that varies from the "norm" and which may indicate the need for referral for counseling and/or psychological intervention, if necessary.
- Develop a protocol for the student to tell you when she/he anticipates a need for assistance.
- When it appears that a student needs help, ask if you can help. Accept a "No thank you" graciously.
- Encourage classmates to accept the student with unique learning needs.
- Be aware that a student with a learning challenge may frequently be treated with therapeutic medications that affect performance and speed.
- Acknowledge that high, but realistic, expectations should be maintained to encourage full realization of social and educational potential.
- Personal interactions with students who have behavioral or learning needs:
  - Speak directly to the student with a learning challenge as you would any other student.
  - Involvement with other children: the teacher should, where possible, get to know all students, engaging them and providing them a connecting link between these students and the students with special needs. The teacher shouldn't be seen as the person who relates only to the student with a challenge.
  - Modeling for others. The teacher should be aware that his or her interactions with the involved student will serve as a model for interactions with students who are challenged. This may be particularly important in assisting others in areas such as communicating with the student with behavior or learning challenge that does not appear appropriate in science teaching/learning activities.
  - Backing off. Often, interactions occur without the involvement of a teacher. At times, in fact, the presence of an adult may inhibit

interactions, and it may be necessary to "back off" and let things happen on their own.

- Interactions in the context of school activities: It is important to observe the interactions of the special student with others in the learning environment. For instance, what types of interactions occur, and at what times? Some activities are more conducive to getting students together than others. The teacher should note and promote opportunities for interactions, even if that means revising plans for teaching skills to allow for spontaneous interactions and play. Remember that not all interactions are verbal. Sitting together, cheering together, watching an event or doing an activity, or working as a team field or laboratory to build something, are all examples of nonverbal/verbal interactions.
- Learning strategies, such as mnemonics, provide quite good ways to access information, It can be an essential component in learning for many students with disabilities (a mnemonic is defined as a word, sentence, picture, device, or technique for improving or strengthening memory).

Teacher Presentation

- Use a large amount of concrete materials to:
  - Proceed in small sequential steps and review each frequently
  - Provide prompt and consistent feedback.
  - Stress the challenged student's successes.
  - Agreements such as: attentive listening, the right to participate, mutual respect, the right to pass, and appreciation should be enforced.

Adapted from: *Strategies for Teaching Students with Intellectual Impairments* (1/2002). Online at < http://www.as.wvu.edu/~scidis/intel.html >