



**The TEACHER CENTER of Broome County**  
**Teacher Study Group Grant Award**  
**Summer 2004**

**FINAL REPORT**  
**DOCUMENT PROCESSES AND OUTCOMES**

**STUDY GROUP TOPIC: Science skills”**

**List of group members: \_\_C. Wilczynski, L. Jensen, B. Derr, and A. Dupuy.**

**The final report must be word-processed and submitted both in print and on disk using this form.  
Include information under each of the following headings.**

**Describe the initial goal of the group noting any adjustments that had to be made as time passed.**

The purpose of this group was develop lessons that teach, reinforce and hone basic science process skills in the high school biology classroom. We wanted to develop lessons that included: observations, inference, measurement, communication, classification and prediction. With these skills in mind, we hoped to produce lessons that would be both interesting and relevant to teens.

With these goals in mind, our group developed lessons – no adjustments were deemed necessary.

**Describe the ACTION PLAN that the group followed.**

Our group met a total of 5 times – and initial short meeting to lay our out plan, followed by 4 longer meetings in which we shared lessons that we developed individually and then revised together with suggestions from each member. Each subsequent meeting included more revisions and discussions.

**Describe how the action plan was implemented.**

At each of our meetings, we discussed and critiqued each lesson plan, and followed with new revisions based on these discussions. Each of our individual experiences and expertise added a perspective to the lessons that would not have been possible without such discussions. In the end, we have produced 4 NEW and innovative lessons with rubrics – each geared towards different science skills. We also gathered and shared our favorite existing lessons. It was especially helpful to have a Special Education teacher amongst the group to keep us reminded of students with special needs. She suggested that we make posters as constant reminders of

these skills and how/when/why students should implement them.

**Evaluation of the impact of the study group effort on teacher/student performance.**

- How has this study group changed you as a teacher? Do you anticipate that any of your teaching practices will have changed?

By sharing our lessons, experiences and expertise, this study group has made us all aware of teaching practices that the other(s) use. The GREATEST value of all has been that sharing. We have all become more aware of different aspects of teaching science and/or teaching students with special needs. Discussions of practices that have worked or not worked for us has been especially valuable. No matter how long we have been teaching, it is always valuable to get new and different ideas and perspectives. In our discussions, we all realized just how much we “assumed” students already knew about science skills. It was very interesting to share various misconceptions and mistakes that our students continued to make throughout the school year. With these in mind, we tailored our lessons to be as specific and straight forward as possible. The immediate critique and evaluation by other members of the group was especially valuable.

The most rewarding benefit is that we all plan to continue to share and collaborate over the school year with these science skills lessons – as well as other lessons.

- What evidence do you expect to see of student achievement is improving as a result of your participating in this study group?

We hope to see students become better thinkers – and better prepared to make their own decisions. By teaching these skills throughout the year and reinforcing them constantly, we hope that student will also become more independent and aware just how essential these skills are. We hope that they will realize that science is a PROCESS, not simply getting the “right answer”. This will be evidenced (or not) when the lessons are implemented.

- What evidence is there that the goals of the study group has/has not been met?

The goals of our group were met – our lessons have been developed, evaluated and revised. We are ready to implement them throughout the year. The first of which (and year-long observation journal) will be introduced within the first week of school and taught by the Special Education teacher within the first week of school. This immediate plan of action is evidence of the success and enthusiasm of our group!

**Comment on the value of the study group process? Did it work for you?**

The study group was VERY valuable to all of us – the opportunity to discuss and evaluate

lessons with 3 other teachers was an valuable experience – if not sometimes humbling. It was especially helpful to gain new and different perspectives on lessons that in the past we did as “review” – thinking that the students had already learned basic science skills. We wanted to focus on teaching these skills, rather than simply reviewing them – these goals were most definitely achieved and it was a valuable experience for all.

**How can we make this study group program better?**

It would be great if a study topic could be chosen in advance and then have people join the group. For example, the Teacher Center would put out a flyer calling for teachers interested in developing lessons on “Science Skills in Secondary school”. Teachers could then sign up from different districts and meet regularly to discuss and share ideas and lessons.