VISIT Rubric For Evaluating Lessons

Who uses this rubric?

- The following is a rubric for you to use when you are writing your evaluation of a lesson that might be used by teachers for their own professional development in VISIT, or that might be used by VISIT teachers in their classrooms with their students.

What is a "lesson"?

- A lesson typically will be something you can do in one to three hours' work at the computer (or with your students in one or two class periods). If there are several lessons within a larger Investigation or curriculum, please fill out this form for each lesson you review.
- These lessons might be ones that the VISIT project is developing,
- These lessons may be ones that are already offered in VISIT webct courses,
- The lessons may have been developed elsewhere (e.g. Northwestern LATE Environment curriculum; MFTeach; ESRI lessons).

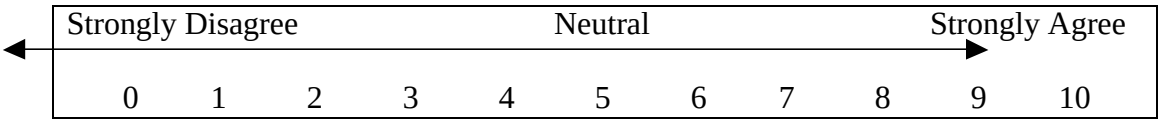
Who will read the evaluation you are writing?

- Other teachers in VISIT. Teachers will use your evaluations to learn how another teacher thinks about the lesson. Teachers might decide whether to take a certain lesson based on your critique.
- The authors of the lessons you are reviewing. Authors of lessons will use your evaluation to revise and improve the lesson.
- VISIT staff will use your evaluation to help decide whether to include the lesson in the VISIT professional development program for teachers.

I hope you will enjoy reviewing and evaluating lessons through using this rubric. Please suggest improvements to this rubric to bev@piedmontresearch.org.

Instructions:

- Please use this form to describe and evaluate an individual lesson. A lesson typically will be something you can do in one to three hours' work at the computer (or with your students in one, two or three class periods). If there are several lessons within a larger Investigation or curriculum, please fill out this form for each lesson you review.
- Use the drop down menu in column 2 to rate each criterion. This should be on a continuum from 0 (Strongly Disagree) to 10 (Strongly Agree)



- Use the right-most column of the table to explain your rating for each item. Just click in the box and begin typing your comments.
- Add any additional comments or items that you think should be included in the rubric at the end of this document.
- Please save this file under a new name when you fill it in. Include your last name in the file name. E.g. "hunterLATElsn2.doc"
- Unless you have received other instructions, please attach your completed evaluation document to an email and send it to both bev@piedmontresearch.org and to anneeschtruth@netscape.net.

You may want to suggest additional reviewers for this lesson. Include that information in your email.

1. Reviewer Name:	Jack Hentz	
2. Date Reviewed:	January 5, 2002	
3. Please identify the resource you are evaluating (name of overall package or project, specific lesson title, author, source, how obtained, URL, etc).	Address Matching	
4. Did you try out this lesson with students? If yes, please tell something here about the class and students with whom you tried this.	no	
Quality of Lessons		
➢ Pedagogically sound and appropriate to inquiry processes	7	**seems appropriate**
➢ Provides scientific value and accuracy	6	**students can see relationship between data**
➢ Appropriate grammar, spelling, quality of language used	7	**appropriate**
➢ Instructions are understandable	7	**understandable**
➢ High quality of visual representations (e.g. layout sensible; screen shots readable; appropriate graph)	7	**appropriate, although my one data file name didn't match the example**
➢ Appropriate to curriculum, age level	6	**appropriate for 9th graders**
➢ Technical soundness (i.e., the technology works as intended).	8	**worked fine**

The **Investigation or lesson(s)** is effective for a **teacher's** professional development.		
➢ Uses and expands her/his scientific knowledge	8	learned about geocoding
➢ Expands his/her use of technology professionally and in the classroom	8	used a new feature of ArcView
➢ Expands his/her understanding and skills in spatial reasoning	7	helped to show how data is related
➢ Encourages collaboration with other teachers, scientists and technologists	7	generates questions about other possibilities
➢ Identifies new ways for meeting standards	7	ArcView mapping is appropriate
➢ Provides guided science inquiry lesson plans	7	lessons given
➢ Appropriate for teacher use (convenience, efficient use of time, technically accessible, etc)	7	seems appropriate

The **Investigation or lesson(s)** is effective at the level of the **students** who use or might use the developed lesson		
➢ Learning meets standards Identify standards: Relating data types	6	example not real appropriate for science area
➢ Participates in and learns about scientific inquiry processes	7	can learn how data relates
➢ Develops or applies spatial reasoning in analysis of data	7	places people on a map
➢ Learns about science applications relevant to community issues	3	not really science oriented example
➢ Becomes familiar with appropriate technology applications	7	can learn about geocoding

The Investigation Themes. Describe the **theme** or topic on which the investigation will be developed. (Example of **themes**: water quality in rivers or lakes; hazardous materials in living environments; ozone or radon in urban areas; distribution of flora or fauna; ecological modeling) Theme: students living within a specified map area		
➢ Is environmentally-related or socially important.	6	can learn how data is gathered
➢ Uses empirical databases.	6	data seems real world
➢ Uses technology for visualization, manipulation of data; preparation of products; communication	6	visualization only, little manipulation
➢ Inquiry-driven.	6	some questions driving the data use
➢ Interesting to the teacher who develops and implements the lessons.	6	other applications would be more science appropriate
➢ Interesting to the student who uses the lessons and becomes actively involved.	5	don't think this would generate a lot of student interest
➢ Interesting and relevant to the local community	5	maybe

The Investigation Scenario. The investigation **scenario** is the particular real world environment under study. It defines the geographical footprint for the **Investigation**. Local **scenarios** are usually more desirable because they are more relevant to the teachers, students and people in the surrounding community. Example of **scenarios**: water quality in the local watershed; power shortage across a state; a city wide environmental problem; water resources across a state or region – location, adequacy, preservation Scenario: Activities of students living in a certain area

➢ Illustrates the relevance of science for the teacher, the students and the community	2	not a good science application
➢ Provides a context where the grade appropriate science standard can be met	6	could be with a differenct application
➢ Provides a framework where a guided science inquiry can be presented, discussed and developed	6	does this

Types Of Data And Availability		
➢ Defines the data for an investigation.	7	gives a good definition of data needed
➢ Provides the data	8	data provided
➢ Teaches how to get the data.	7	explains some about this
➢ Supports and teaches Geo-spatial Data Sets	8	good example
Identify the types of data provided: city streets student data		

The Scientific and Technological Knowledge		
➢ Identifies the specific scientific knowledge base needed.	5	
➢ Identifies resource scientists and specialists.	7	provides an example
➢ Correlates the knowledge base with curricular standards.	5	not a lot of curriculum standards
➢ Provides links to needed resources and a URL is provided for a glossary	4	mailing address provided
➢ The lesson or investigation resources help to formulate, understand, and/or use a Driving Question for inquiry.	5	some inquiry questions included
➢ It is clear what the driving question(s) are.	5	
Driving Question: what are the activities of certain students		

Data Integration, Analysis and Interpretation		
➢ Defining Data Processing: The data are given, already processed, or procedure is given.	7	data is available
➢ The analysis methods are appropriate to the purpose of the investigation and worth learning and doing	6	.appropriate, but not really earth science oriented
➢ Suggested tools are highly appropriate and useful for the analysis and interpretation tasks	7	appropriate
Please identify tools used: ArcView		
Tools for analysis: Teachers are provided with instruction in their use.	7	instructions provided
Tools for analysis are accessible to teacher	9	on my laptop
Tools for analysis are accessible to the students	7	need a computer lab
Expected analysis outcomes are defined clearly and completely.	7	outcomes given

Lesson Plans and Rubrics		
➢ Meet National And Local Curricular Objectives.	5	maybe
➢ Provide identifying templates for lesson plans.	7	template given
➢ Provide identifying guidelines for creating assessment rubrics.	6	some assessment questions provided

Classroom and curriculum feasibility:

Time 1 period

Materials ArcView plus appropriate databases

Logistics need to have data loaded or take time to create

Management guide students self-learning

Demands on teacher little

Student skill prerequisites ability to create data files, limited use of ArcView

What are some other feasibility issues for this resource or lesson(s)?

where to get other types of data to geocode.

Completing, Testing, Reporting and Continuing		
The lesson or investigation results in a product	6	could printout map or say questions are
The outcome of the lesson or investigation is useful to a real audience.	6	needs to be more earth science oriented
Results can be disseminated through science fairs, poster presentations, and publications.	7	possibly with a different type of application
Project can be sustained through Grant Sources and Partnership opportunities at the Local, Regional and National Level	5	unknown

Additional Comments Not Covered:

Could adapt this to a relevant Earth Science inquiry.