

MAISA and the REMC Association of Michigan  
Best Practices in Technology Integration  
Plan

**Title:** Classification of Living Things--A Culminating Project

**Subject(s):** Science

**Intended Grade Level(s):** 6

**Description:**

The purpose of this project is to provide students with a technological avenue from which they can demonstrate their understanding of taxonomy. Students will be required to explain the basis upon which living organisms are classified, to describe the current classification system, the *Linnean scheme*, to use the characteristics of a student chosen organism to explain its unique scientific classification, and, finally, to explain the importance of being able to classify an unknown, or newly discovered, organism.

**Curriculum Benchmarks:**

[MI.SCI.I.1.MS.6](#). Write and follow procedures in the form of step-by-step instructions, recipes, formulas, flow diagrams, and sketches.

[MI.SCI.III.2.MS.1](#) Compare and classify organisms into major groups on the basis of their structure.

[MI.SCI.II.1.MS.3](#) Show how common themes of science, mathematics, and technology apply in real-world contexts.

**Materials/Hardware/Software:**

To complete this project students should have access to the following:

Access to the Internet and the World Wide Web.

Hyperstudio from Roger Wagne Publishing.

A digital camera and/or a scanner.

A copy of the included activity sheet, with rubric.

**Activities/Procedures:**

Teacher pre-activities:

1. The teacher needs to teach a unit on the scientific classification of living organisms. In that unit the following topics should be addressed: the basis upon which living organisms are classified, the description of the current classification system, the *Linnean scheme*, which characteristics are most likely used to explain an organism's unique scientific classification, and, finally, the importance of being able to classify an unknown, or newly discovered, organism.
2. Teach a lesson on the use of Hyperstudio. The lesson should include the following topics: how to start Hyperstudio, load a stack, save a stack, insert a graphic object, type text into a text box, create buttons, and add "extras" to the card. It is assumed that students already have experience with capturing graphics using their Web Browser, using the scanner, using the digital camera, and other common computer skills
3. Prepare enough student activity sheets for all students.

Activities:

1. Introduce the activity to the students, explaining the goals of the project.
2. Review key points of the unit on taxonomy.
3. Review key points of the technology to be used.

**Assessment/Evaluation:**

Interactive Stack Grading Form:

Card 1 Fonts easy to read? (1 pt. possible) \_\_\_\_\_  
Graphics? (5 pts. possible) \_\_\_\_\_  
Buttons the same size? (1 pt. possible) \_\_\_\_\_  
Buttons clearly visible? (1 pts. possible) \_\_\_\_\_  
Buttons properly linked? (2 pts. possible) \_\_\_\_\_  
Content of Text? (5 pts. possible) \_\_\_\_\_  
Spelling/Grammar/Punctuation Errors? (3 pts. possible) \_\_\_\_\_  
Total Points (18 pts. possible) \_\_\_\_\_  
Comments:

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Card 2 Fonts easy to read? (1 pt. possible) \_\_\_\_\_  
Graphics? (5 pts. possible) \_\_\_\_\_  
Buttons the same size? (1 pt. possible) \_\_\_\_\_  
Buttons clearly visible? (1 pts. possible) \_\_\_\_\_  
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Content of Text? (5 pts. possible) \_\_\_\_\_  
Spelling/Grammar/Punctuation Errors? (3 pts. possible) \_\_\_\_\_  
Total Points (18 pts. possible) \_\_\_\_\_  
Comments:

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Card 3 Fonts easy to read? (1 pt. possible) \_\_\_\_\_  
Graphics? (5 pts. possible) \_\_\_\_\_  
Buttons the same size? (1 pt. possible) \_\_\_\_\_  
Buttons clearly visible? (1 pts. possible) \_\_\_\_\_  
Buttons properly linked? (2 pts. possible) \_\_\_\_\_  
Content of Text? (5 pts. possible) \_\_\_\_\_  
Spelling/Grammar/Punctuation Errors? (3 pts. possible) \_\_\_\_\_  
Total Points (18 pts. possible) \_\_\_\_\_  
Comments:

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Card 4 Fonts easy to read? (1 pt. possible) \_\_\_\_\_  
Graphics? (5 pts. possible) \_\_\_\_\_  
Buttons the same size? (1 pt. possible) \_\_\_\_\_  
Buttons clearly visible? (1 pts. possible) \_\_\_\_\_  
Buttons properly linked? (2 pts. possible) \_\_\_\_\_  
Content of Text? (5 pts. possible) \_\_\_\_\_  
Spelling/Grammar/Punctuation Errors? (3 pts. possible) \_\_\_\_\_  
Total Points (18 pts. possible) \_\_\_\_\_  
Comments:

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Card 5 Fonts easy to read? (1 pt. possible) \_\_\_\_\_  
Graphics? (5 pts. possible) \_\_\_\_\_  
Buttons the same size? (1 pt. possible) \_\_\_\_\_  
Buttons clearly visible? (1 pts. possible) \_\_\_\_\_  
Buttons properly linked? (2 pts. possible) \_\_\_\_\_  
Content of Text? (5 pts. possible) \_\_\_\_\_  
Spelling/Grammar/Punctuation Errors? (3 pts. possible) \_\_\_\_\_  
Total Points (18 pts. possible) \_\_\_\_\_  
Comments:

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Other Requirements:

At least one scanned image or image captured with digital camera? (10 points possible) \_\_\_\_\_

Comments:

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Extra Credit:

Relevant animation? \_\_\_\_\_

Effects between cards? \_\_\_\_\_

Relevant sounds? \_\_\_\_\_

Total Points/Grade: \_\_\_\_\_

**Follow-up Activities:**

1. Have students look at the projects of other students and send their C4 critiques" via e-mail.
2. Do an in depth report on an organism, explaining its structure and its classification.
3. Correspond with a taxonomist via the Internet about his or her research. Taxonomists can be found via a search.
4. Find and evaluate web sites about taxonomy.

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**School:** Ferry Middle School

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**MORE ON NEXT PAGE**

## Student Activity Sheet

With this project you will have the opportunity to use technology to show what you have learned during our unit on the scientific classification of living organisms. You will be able to use the Internet, the scanner, and the digital camera, as well as Hyperstudio to do this. Your final project will be a Hyperstudio stack that will demonstrate what you know about the key points of scientific classification. The following information will instruct you as to what type of information should go on each of the five cards which will make up your stack. You may choose your own graphics for each card. However, at least one graphic in the entire project must be either scanned or captured with the digital camera and inserted in the appropriate place in your project. Of course, you should also pay attention to other details, like: eye appeal, consistency, content, and mechanics. As you work, you should refer to the information below and to the attached rubric

Some Internet sources which may assist you during this project are as follows.

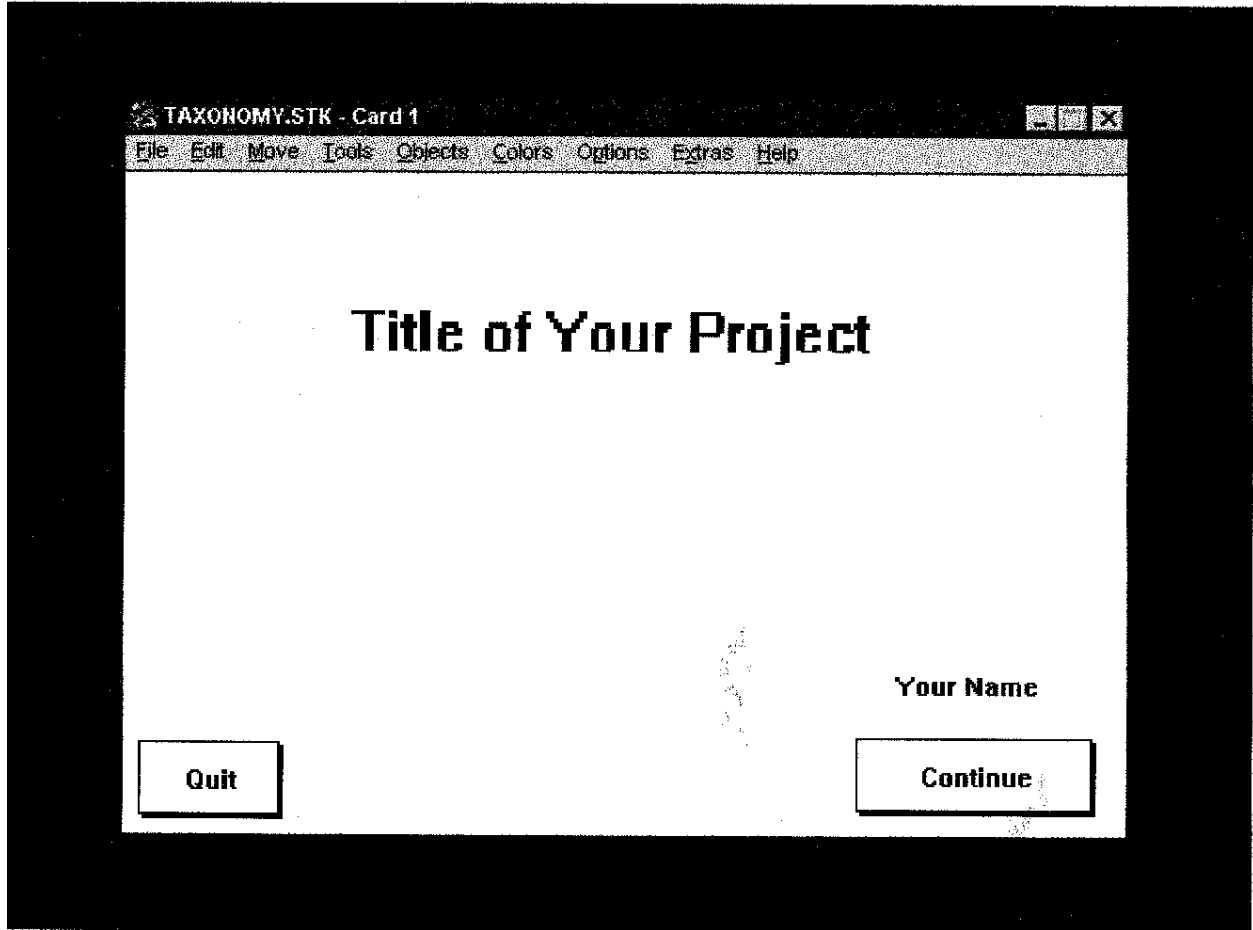
Certainly these are not the only Internet sources available, however.

- Federhen and Scott, Carol; Hotton, Detlef; Leipe, and Vladimir Sousoyev. NCBI Taxonomy Browser. [Online] Available:  
<http://www.ncbi.nlm.nih.gov/Taxonomy/tax.html>
- Grey, Paul. Classification of Organisms--Grade 6 Life Science. [Online]
- Available:  
<http://www.sd68.nanaimo.bc.ca/schools/coal/grade6/mammals.htm#A5>
- Maddison David R. and Wayne P. Maddison The Tree of Life Project Root Page. [Online] Available:  
<http://phylogeny.arizona.edu/tree/life.html>
- NSF, Harvard University Herbaria, and the University of CA, Davis Treebase [Online] Available:  
<http://herbaria.harvard.edu/treebase/>

**MORE ON NEXT PAGE**

## Card #1

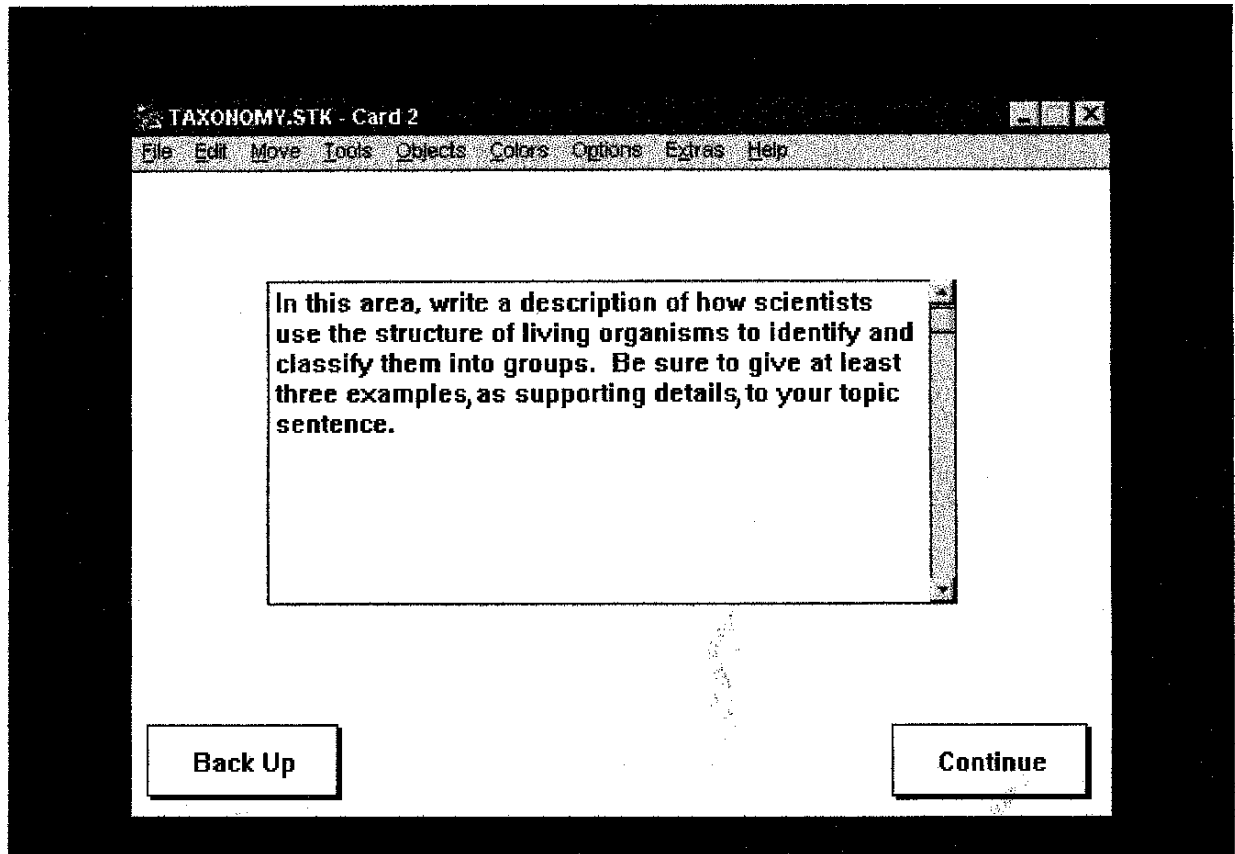
On this card you should insert the appropriate buttons, a graphic, the title of your project, and your name.



MORE ON NEXT PAGE

Card #2

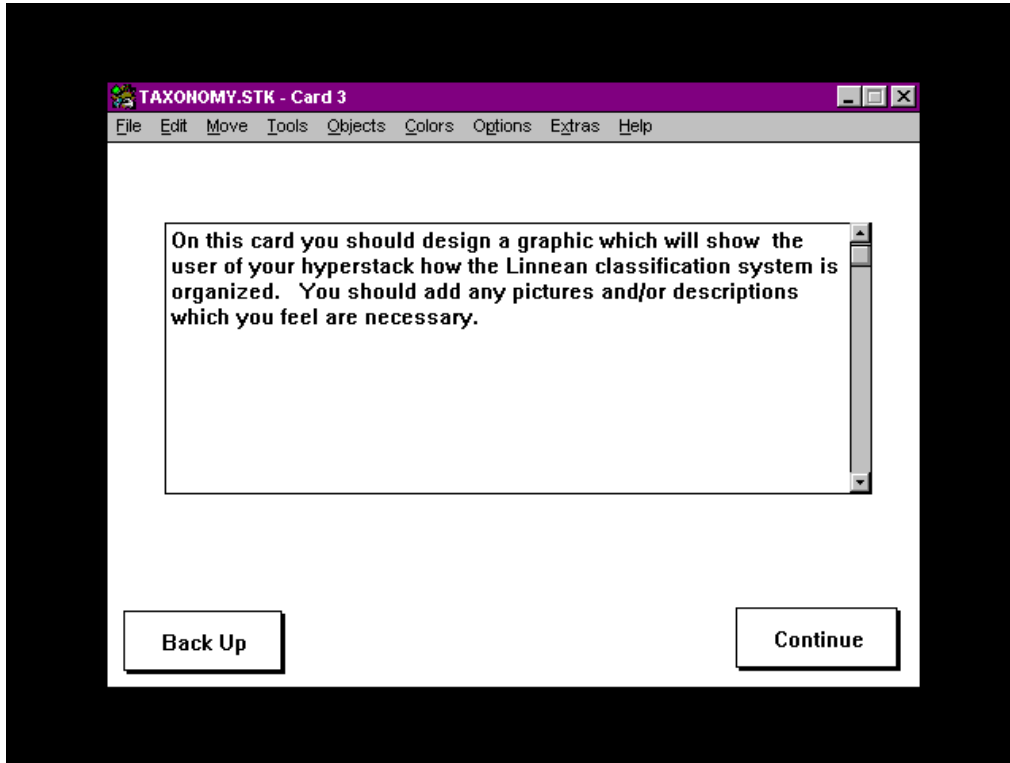
On this card you should type a description of how scientists use the structure of living organisms to identify and classify them into groups. Be sure that your description includes examples as supporting details. You should, also, insert a graphic.



**MORE ON NEXT PAGE**

### Card #3

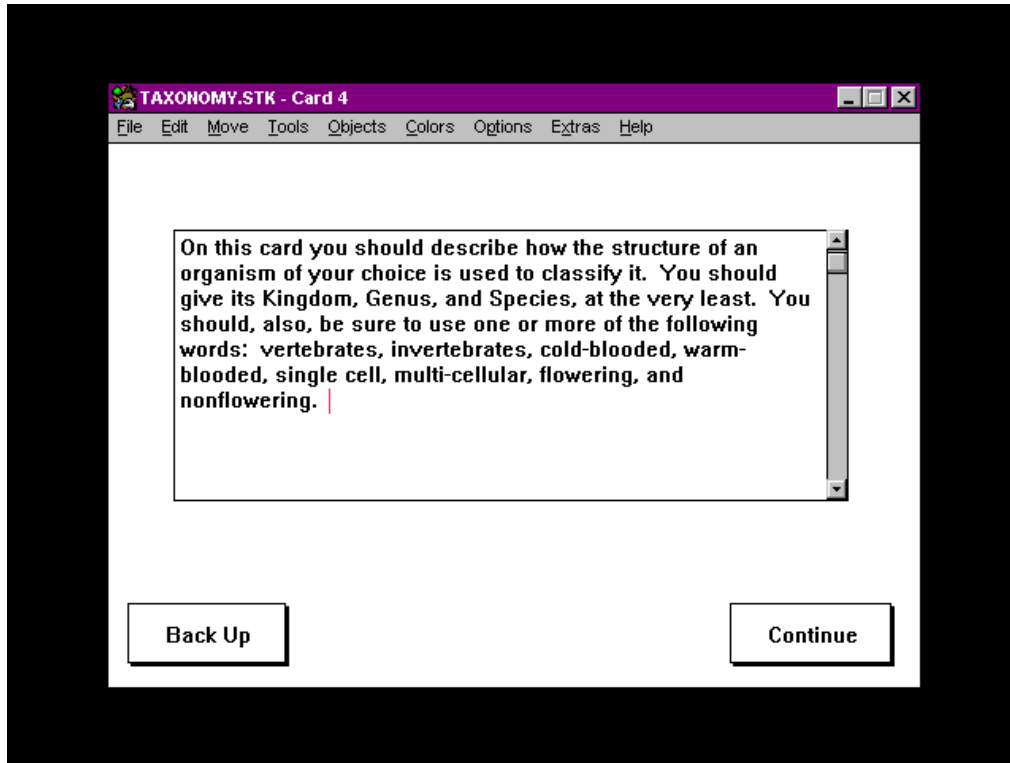
On this card you will design a graphic showing how the Linnean classification system is organized.



**MORE ON NEXT PAGE**

Card #4

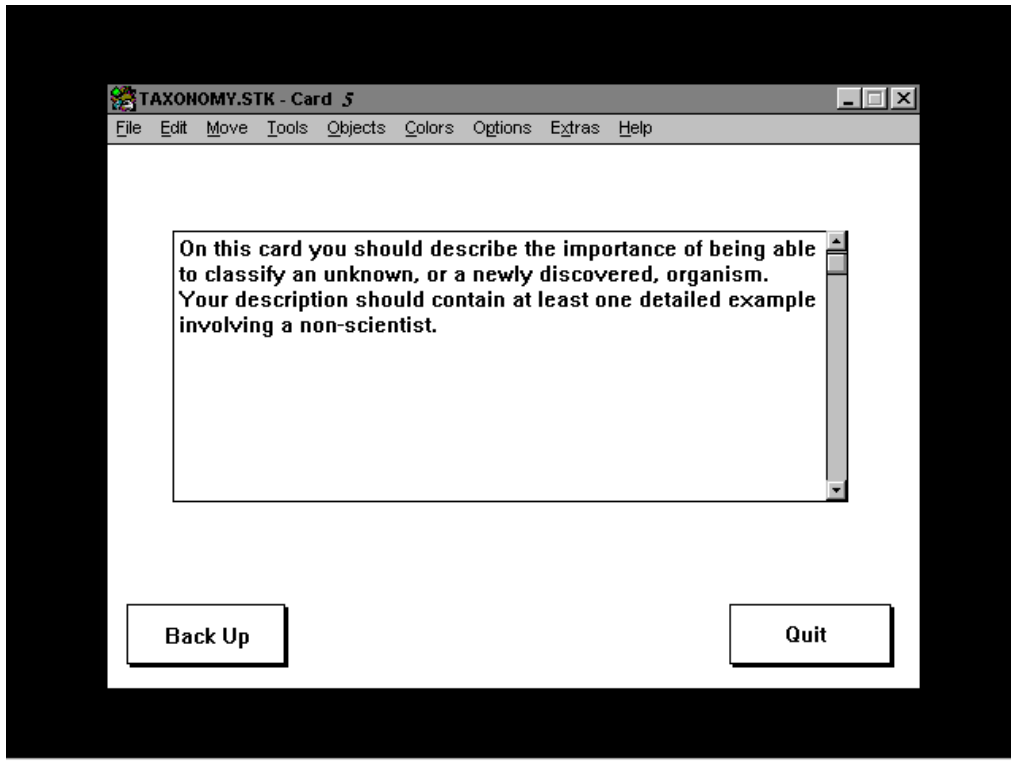
On this card you will describe how an organism of your choice is classified. You should include a graphic.



**MORE ON NEXT PAGE**

Card #5

On this card you should use graphics and examples to describe the importance of having a classification system.



Grading Rubric

**Interactive Stack Grading Form:**

- Card 1 Fonts easy to read? (1 pt. possible) \_\_\_\_\_
- Graphics? (5 pts. possible) \_\_\_\_\_
- Buttons the same size? (1 pt. possible) \_\_\_\_\_
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- Content of Text? (5 pts. possible) \_\_\_\_\_
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- Total Points (18 pts. possible) \_\_\_\_\_
- Comments:

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Buttons clearly visible? (1 pts. possible) \_\_\_\_\_  
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Comments:

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Extra Credit:

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