

Nicely done. You have a good variety of ideas. 25/25

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Lesson Plan #1: Planning a Trip to the State Capitol

Where found: I located this lesson by using your Diigo tags, then accessed Thinkfinity, which led me to Illuminations for Teaching Math.

<http://illuminations.nctm.org/LessonDetail.aspx?ID=L362>

Grade: 3-5

How technology is used: This plan requires the students to access several web sites to collect data, for example, Travelocity, Mapquest, & 50States.com in addition to some extension activities in which students can email or locate mailing addresses to members of the state legislature. Although it is not mentioned, a teacher could compare emailing versus letter writing with paper and pencil and/or writing in word and attaching documents to an email. The lesson plan also addresses brochures or postures about the state capitol, there are multiple avenues students could pursue. For example, they could use word or publisher for online brochures and posters or they could print images from the web to create a physical poster.

NETS-S: 2,3,4

Lesson Plan #2: Comics in the Classroom as an Introduction to Genre Study

Found: <http://www.readwritethink.org/classroom-resources/lesson-plans/comics-classroom-introduction-genre-188.html?tab=4#tabs>

Subject: English

Grades: 3-5

Technology is used in the study and creation of comics on Comic Creator

NETS-S: 1,3,6

Students will

- explore a variety of comic strips.
- discuss components of comic strips.
- examine conventions of comic strips.
- analyze online [Comic Creator](#) interactive and create a planning sheet for using the tool.
- apply what they have learned about comics by creating one of their own.

INSTRUCTION AND ACTIVITIES

1. Begin by brainstorming with the students the names of different comics that they know. Also have the students give descriptions about them.
2. Pass out samples of many different types of comics and comic books. Be sure to include

historical, political, Illustrated Classics, "funnies," superheroes, and examples from contemporary books such as Spiegelman's *Maus*.

3. In small groups, students should discuss what is similar and different among the types of comics.

- Is there dialogue? How is it presented?
- What are the characters doing? How is that shown?
- What is the shape of the comic frames? What does that represent?
- How is action shown?
- What happens from one frame to the next?

4. Using the information from their discussions, have the students come up with the different comic subgenres such as those noted in #2 above. The students should realize that within comics there are many genres and sometimes genre determines convention.

5. Present the following information to the students:

- Comics manipulate space on a page to guide the reader and affect the interpretation of the story.
- Page layout and design can represent different organizational models, especially for storytelling. For example, a page with many frames can represent an ongoing scene with a lot of action. Larger frames with a great deal of detail may be an artist's attempt to set a forthcoming scene. Even page divisions add a certain element of story organization.
- Comic "storytellers" are careful not to include too many disjointed scenes on one page; as with a written narrative, such a mixture would make for a confusing and jumbled story.
- Layout is important when combining images and text, and with comics, students can transfer knowledge of visual organization to verbal and written organizational models.
- The concept of exploring one idea fully before moving onto the next could be likened to the page-break concept in graphic art.

6. With the new information they have, students should observe the conventions of page design and layout. Then they should analyze professional comics' use of the conventions.

7. Using an LCD projector, demonstrate the [Comic Creator](#) student interactive and all of its tools. The students can use their knowledge of comic components and conventions to guide the teacher through a whole-class created comic.

8. Finally, using the [Comic Creator](#) on their own, students experiment with the conventions of page design and layout in their own comics.

EXTENSIONS

As a writing activity, the students in small groups can create a planning or tips sheet that can be given to [Comic Creator](#) users. This sheet would help them make decisions about creating their own comic strip. The creation of this tips sheet is also the assessment that determines how much the students understand from the first session of the lesson.

If you want to continue using comics in your classroom, visit the [National Association of Comics Arts Educators](#) for additional lesson plan, activities, and other resources.

STUDENT ASSESSMENT/REFLECTIONS

As this lesson is the introduction to a longer unit on comics and genre study, teacher observation and conferences and interviews should make up the bulk of the assessment to ensure that students are grasping and retaining the material as they move through the unit. Participation in guided discussion should also be considered.

If grades are to be given, teachers can assess the creation of the comic strip as well as the tips sheet if they chose to do the extension activity.

Found: www.readwritethink.org/classroom-resources/lesson-plans/going-digital-using-book-30623.html?tab=4#tabs

Subject: English Language Arts

Grades: 2-4

Students use digital reader tools (eBooks) as well as compare the digital reader to a book form of the same story.

NET-S: 6,4

Lesson Plan #4: Look At Those Leaves!

Found: <http://www.sciencenetlinks.com/lessons.php?BenchmarkID=12&DocID=215>

Subject: Science

Grades: K-2

Students use technology to visit a web site (or two sites in the expansion/extension) to further enhance their knowledge of leaves

NET-S: 1,6

Purpose: To observe, measure, and sort tree leaves. To examine leaves individually, in groups, and in relationship to the entire tree.

Context: This lesson begins with students observing leaves in hands-on ways. As they observe attributes, they will group the leaves according to these attributes and consider any patterns they see emerge. In addition, they will communicate what they have learned about leaves in quantitative terms. The activities in this lesson will challenge students to consider how standard units of measurement help clarify for others what they are trying to convey.

In the second part of this lesson, students will become more familiar with the seasonal changing of leaves. They will realize that these and other changes repeat themselves, and that these patterns of change are called cycles and are part of our environment.

Materials:

- leaves (if it is not a good time of year for collecting leaves, use photographs of leaves)
- clear contact paper

- crayons
- masking tape
- various measuring tools (rulers, paper clips, string, tape measures, yardsticks, unifex cubes)

Please note that the website used in this lesson has an "Audio Enhanced Version" as well as a "Graphics Only Version." For students who are not yet reading, the audio enhancement will allow them to go through the site with more independence.

Motivation: To help students become excited about leaves, take a group "Leaf Walk." This can be a field trip or simply something you do at recess time. If taking a group walk is difficult to arrange, perhaps students can bring leaves in from home.

For the "Leaf Walk," each student can bring a bag for collecting leaves. Encourage students to collect many leaves and different kinds of leaves.

During the walk, ask students questions such as:

- Where do you see leaves?
- Do you see leaves anywhere else?
- What do you notice about the leaves?
- What do you notice about the trees?
- Do all the trees have the same kind of leaves?
- Besides leaves, what other parts of a tree can you see?

You could also ask students to notice these kinds of things about the leaves around their homes. If it is not a good time of year for viewing leaves on trees, you could have students look through books or online photographs of leaves.

Development

Part I: Observing, Sorting, and Measuring Leaves

Place the leaves (or pictures of leaves) that the students collected between clear contact paper. Cut around each leaf, being careful to leave about a ½ inch edge of contact paper around the leaf. Give students time to examine the leaves and share with each other their observations. You can help document their observations by recording them on a chart.

You can facilitate their observations and help them focus their learning about leaves by asking them questions about what they see. For example, ask questions such as:

- Do all the leaves look the same?
- How are the leaves different?
- Are there any features that all the leaves have in common?
- How many 'points' do the leaves have?

Now that students have had some hands-on opportunities to examine leaves, it is a good time to introduce them to the site, [Trees are Terrific... Travels with Pierre](#).

Note: The website contains a lot of information on trees. However, this lesson will focus just on

leaves, which are discussed in pages 1-14 of the online book.

Your students can learn more about leaves and trees with Pierre using either the graphics only or audio enhanced version of this site. Have students navigate through pages 1-9 of the online book, stopping along the way to look at the leaves they collected. For example, when Pierre talks about narrow, wide, smooth, and jagged, have students look at their leaves with those characteristics in mind. With this kind of examination, students will learn about veins and blades, or the difference between a simple and a compound leaf.

The crayon leaf rubbing activity outlined on this site is another fun way for students to see some of the details of leaves.

You can also facilitate student thinking about the various ways in which they can group the leaves. You could use masking tape to make a grid on a tabletop, and put the contact paper leaves in a basket on the table. Encourage students to sort and classify according to the attributes they see. You can help them see that like leaves belong to the same kind of tree. This is just one way of grouping. Using the grid can also lead to some simple graphing.

A more complex way of grouping is to have students not only consider size, but also measurement. To help students begin thinking about measurement, you might ask them questions like, "How many paperclips long do you think this leaf is?" or "How many cubes long do you think this leaf is-more than 5 or less than 5?" Once students begin estimating, they will likely be eager to find the answer.

Before students can understand what a unit of measurement means, they need experience with the process of measurement. Exposure to many different kinds of measuring tools in a free-exploration situation allows students to experience the act of measuring. You can put the leaves on a table and make rulers, paper clips, string, tape measures, and yardsticks available. It is not important at this stage that they measure accurately, but it is critical that they have this open-ended experience with tools of measurement. They are measuring, and thinking about their leaf in measurement terms.

From this base, you can help them see that their measurements describe their leaves. You can also talk with them about the fact that if everyone in the class uses the same tool for measuring, then it will be easier to compare their measured leaves. Students can measure their leaves with familiar units first. Since it is not developmentally appropriate for many children of this age to use rulers that incorporate conventional units of measurement, students should have opportunities to measure with alternative units.

Unifix cubes are common for making measuring more tangible for students. You can also use things like paper clips linked together or string for measuring length. For younger students, these units of measurement are most appropriate. As students become ready, you can introduce conventional units of measurement in simple terms. For example, each unifix cube is 1 inch. If the leaf is 4 cubes long, it is 4 inches long.

Once everyone has had an opportunity to experiment with various measurement tools, it is helpful to narrow the measurement down to one type of unit. For example, if your students are using paper clips, then everyone should measure with paper clips. This gives students a chance to compare their leaves in measured terms. It also helps them learn why it is useful to have a standard unit of measurement. Perhaps you can sort/classify or graph with their measurement results.

Part II: How Leaves Change

Students now have a solid base for thinking about leaves in relationship to the whole tree. You might begin a discussion about this by asking students if they think their leaves will always look the same. You could also ask them what they think their leaves would look like if they had collected them at a different time of year.

Once students start talking about the idea of seasons, they can go back to [Trees are Terrific...Travels with Pierre](#) and read through the pages about leaves changing during the seasons (starting on page 10, "Trees look different at different times..."). As they read through these pages, have them click on the tree to see the leaves change.

Through class discussion and questioning, help students realize that each season, every year, the leaves do the same thing. You might ask students to consider what other things in their environment change. Ask questions that help relate leaves changing to a change with which they are familiar.

Ask questions such as:

- What does the leaves changing remind you of?
- Where have you seen this change?
- What do you think causes this change?
- What kinds of things can you change?

Talk about how some changes repeat themselves. These patterns of change are cycles and part of our environment.

Assessment: One option for having students reflect upon their learning is to utilize journals. You might ask students to choose one leaf that they would like to put in their journal. They could use their journal pages to respond to promptings like the following, in words and/or pictures:

- When I look at my leaf, this is what I see.
- This is what I want to remember about my leaf.
- This is what I can tell you about my leaf.
- There are a lot of ways to sort leaves, for example....
- This is how leaves change over time.

In responding to these ideas, students will be practicing their observation, documentation, and communication skills. They will also be thinking about and integrating the types of things they have learned about leaves through this lesson.

Another way for students to reflect upon their leaf experiences is to simply talk with one another at a group meeting time about what they learned and enjoyed about leaves. If you photographed students working with the leaves along the way, you could display these photographs in the classroom. This kind of visual narrative excites children, and they are likely to be filled with stories to tell each other about what they did with leaves.

Extensions: Any remaining questions students have about leaves and trees are excellent guides for how to extend this lesson.

Returning to [Trees are Terrific... Travels with Pierre](#) provides rich learning opportunities for other things about trees.

To reinforce the concept of simple and compound leaves, you can play "Leaf Bingo." To make this game, choose one simple leaf and one compound leaf to photocopy. Make several copies of these two leaves. On pieces of cardboard, draw simple grids to make bingo boards. (You can make a bingo board for each student or one for two, if you want students working in pairs.) Glue the photocopied leaves onto the boards, in the grid spaces. Be sure that the leaves are arranged in the spaces in a way that allows students to get "Bingo!" Now that the boards are done, you will need to make two leaf flashcards for calling out which leaf the students will mark. One flashcard will be a simple leaf and the other a compound leaf. You are all set play! One person can stand in the front of the group to hold up the simple or compound leaf card, while the other students mark their cards. (For marking, students can use chips or any other small item you have around the classroom.)

Placing leaves in unusual places around the classroom invites students to think and talk about the leaves in new ways. Put some leaves in the writing area to encourage them to write about leaves. Having leaves in the reading area with books about leaves connects literature with nature. If you put leaves near blocks, students may build trees or become lumberjacks.

It is meaningful to talk with students about what they can do to help take care of trees. We all share this earth, and young people feel good about contributing to caring for our environment. Students can look for books and songs about recycling and respecting the earth. Encourage students to be active in caring for the environment. Adopt a tree! You and your students can learn more about planting and adopting trees by visiting the [National Arbor Day Foundation](#) website.

Lesson Plan #5: Organization 2: My Computer Folder

Found: <http://www.sciencenetlinks.com/lessons.php?BenchmarkID=8&DocID=398>

<http://www.sciencenetlinks.com/lessons.php?BenchmarkID=8&DocID=399>

Subject: Computer Lab

Grade:K-2

This lesson is great, students are hands on with computers, they are storing, retrieving and organizing information.

NETS-S: 6,1,4

Purpose: To help students recognize that computer folders and files help people organize things in order to make it easier to find things later.

Context: This lesson is the second of a two-part series about organization and information retrieval. During these lessons, students observe that numbers, colors, folders, and other markings are used for keeping track of things in a particular order. Through group discussions, students begin to recognize that a value of storing things in a useful order is that it helps keep track of where things are and makes it easier for finding these things later.

Children are often required to keep folders, notebooks, journals, and/or portfolios to organize and store their work so it can be reviewed at a later date—the essence of an information storage and retrieval system. Children can help design and use simple strategies for storing and retrieving information that is recorded in the form of words and pictures on physical media (for example, audio and video cassette tapes, paper, and photographs). Using things such as personal folders, pockets mounted on the wall, and plastic file boxes located in workstations, students can learn that things need to have places where they can be stored—and if they are stored well, they are easier to find later. Things containing the same type of information can be assigned a special color or name that make it easier to store them correctly and find them later. These experiences can provide students with the foundation they will need to address more sophisticated information-management problems in the future. (*Benchmarks for Science Literacy*, p. 201.)

Students begin with learning about the various organizing systems already in place in their classroom. You can expect that students at this level will understand that certain things "belong" in certain places. They have had experience with putting their toys away where they belong, for example. At school, they have already learned where to keep their pencils, where they can find paper towels, what to do with scrap paper, etc. It is likely, though, that students have not really thought about these things in terms of ordering, organizing, or systematizing. Some students may already understand that putting things "in their place" helps them know where things are, but others may not have linked the reason for ordering things with the act of ordering.

In [Organization 1: Look at What I Organized!](#), students have opportunities to use and develop systems of organization in hands-on ways. They learn that systems of organization help make it easier to find things later. The hands-on and tangible learning experiences in this lesson serve as a foundation for understanding the fundamental organizing principles of creating and using computer files and folders, which is the focus of the second lesson. After students have studied the various systems in place in their classroom and have spent time talking about the role organizing plays in creating useful systems, they work in teams to develop their own systems of

organization.

Organization 2: My Computer Folder helps students bridge their understanding of how and why we create systems of storage and organization to an elementary introduction to computers. In this lesson, students learn that computers store information that can later be retrieved. The hands-on and tangible learning experiences in the first part of this lesson serve as a foundation for understanding the fundamental organizing principles of creating and using computer files and folders. Students practice storing information in a file and learn how to create folders for storing their files. Students also close and reopen their folders and files in order to see that the computer saves their documents.

The main objective of this lesson is for students to realize that computers can store and organize information and that this information can be easily retrieved whenever they want to access it.

Materials:

- [File and Folder](#) student sheet
- One pocket folder for each student (either purchased or one that students make by folding paper and stapling, gluing, or taping the folds that make the pocket)
- Paper
- Scissors
- Computer with Internet access (the Motivation section of this lesson can be modified so that this lesson can be used for instruction without Internet access)
- Overhead projector (optional)
- Whatever software you will use with students to make files and folders (such as Microsoft Word, WordPerfect, or Microsoft Works)

Motivation: Begin this lesson with an engaging introduction to computers. Have students group around a computer and literally introduce the computer to them! If your group of students is unfamiliar with computers, start from the beginning and show them the **screen**, **keyboard**, and **mouse**. If you have a group of students that are already familiar with these basics of the computer or a group that is mixed in terms of student familiarity with computers, let students introduce these parts of the computer to the rest of the class. As students present, encourage them to ask each other questions about when they have used computers before; what they enjoy doing with computers; what they would like to learn about computers; and how they have seen others use computers. Tell them that they will learn a little about how people use computers to help them organize things.

You can use all of the ideas discussed in [Introducing the Word Processor](#), on The Educator's Reference Desk website, or simply use some of these ideas as a fun way to orient students to the computer keyboard. Some of the activities, such as Keyboard Bingo and Sticky Fingers will help to familiarize students with the keyboard, and students who are still learning their letters will gain more practice with letter recognition. You might want to point out to students that the

keyboard letters do not go in the same order as the alphabet because young students are often confused about the letters that are "out of order."

As students become familiar with the keyboard, they will also manipulate the mouse and, obviously, observe their work on the computer screen. For students who would benefit from further review, try [Introduction to the Mouse, "Choo Choo Train"](#), Lesson #1 on the Introduction to Computers and the Internet: Language Arts Skills Unit Plan webpage from The Educator's Reference Desk, for a creative orientation to using the computer mouse.

Note: If your group of students is relatively new to computers, utilizing The Educator's Reference Desk activities will offer students an engaging introduction to the keyboard and mouse. If your group is very familiar with the computer, it might be more engaging for them to work in groups and take turns being the teacher. Ask each group to pretend that it is the teacher. Its job is to describe a computer and its functions to the class. Students can also talk about what they enjoy doing on the computer. This provides a fun review for students, and they will learn more about computers than they first knew by listening to each group's "computer presentation."

Once students have become comfortable with the keyboard and mouse, lead a group discussion to quickly introduce this lesson. You could ask:

- Remember when you worked in teams to organize something in the classroom? What do you remember about that?
- Can you remember what organizing things helps us do?
- Do you think there might be a way to use a computer to help us organize things? (Accept all answers. It is important for each student to hypothesize about this possibility. Through the activities of this lesson, students will learn on their own that computers can store and organize information.)

Tell students that you will work together to find out how some people do use computers to organize things.

Development: Students will benefit from a hands-on example of files and folders before creating and using them on the computer. Distribute folders to each student. Have each student choose a name for their folder and have them write this name on the front of the folder. You will want to decide whether to let students use inventive spelling (spelling the word as they hear it and think it is spelled) or whether you will help them learn the correct spelling of the word. Also, for students who are not yet writing, you can write their folder name for them, and ask them to draw a picture of it instead. Let each student decorate the front of her/his folder as s/he wishes. As a way to reinforce the vocabulary word "folder" and to lay the groundwork for learning that computer folders have different names, lead a brief discussion that allows each student to show other students their folders. You might ask:

- Why do you think these are called folders?
- What do we use folders for?
- How do you think a folder can help us keep track of papers?
- Do you think we can fit more than one paper in a folder?

- Let's hear about some of your folders' names. (Let each student who wants to share state the name of her/his folder.)

Tell students that the papers people put in folders are sometimes called files. At the doctor's office, dentist's office, their school's office, and many other offices, adults keep track of their files by keeping them in folders. If you have a file cabinet in the classroom, this is a good information storage system to show them.

It is now their turn to make a file to put in their folders. Have students use the [File and Folder](#) student sheet to write a letter. If a student is not yet able to write, she/he will need help with this part. When students are finished making their files and putting them in their folders, have everyone convene again in a large group. Review with them that they each have a folder and that their folder has a name. In their folder they now each have a file. You can facilitate students' comprehension of these vocabulary words by referring to their tangible folders and files and asking questions. Students will have a better understanding of their vocabulary words when they have concrete, tangible references. You might ask:

- If we put all the folders together in one pile, what would help us know which folder belonged to whom? (Names identify folders.)
- Why might we keep our files in our folders?
- If a file fell out of a folder, how could we tell whose file it is?
- Would a folder fit into a file?
- Do you think your folder could hold more files?

Students are now ready to apply their experience with tangible folders and files to the more abstract ones of a computer. Here is some suggested language for introducing students to the idea of computer files and folders:

*Did you know that you could make a folder on a computer, too? Because computers are not made out of paper, computer folders look a bit different from our folders here, but they do the same job. Computer folders can store things just like your folders. And, just like in our folders, computer folders hold files. In fact, a computer can **save** a file in a folder for as long as you'd like, so that you always know just where to find a file when you are looking for it.*

Everyone will have a turn to make his/her own computer file and folder. I will help you make a folder on the computer that has the same name as the folder you made earlier. Then, I will help you make a file on the computer that looks like the one you made on paper. I will show you how to put your computer file into your computer folder. Your computer folder will save your computer file, so that it will be there the next time you want to find it .

At this time, have students get on the computer. Students should have their tangible folders in hand while working on the computer because they will create computer folders with the same name; files with the same name; and the file document will be the letter that they wrote. This helps students bridge the gap between the concrete and the abstract. Having their tangible folders with them as they work on the computer will also provide them with a visual reference for understanding the file/folder system on a computer.

If you are working with a young student body, consider making the folders ahead of time, but having each student use the keyboard to type her/his folder name. Older students will likely be ready to open and name a new file themselves with some instruction from you. Again, each student should create a computer folder that has the same name as her/his paper folder. When they open their new file, they should name it the same name as their paper file; and they should type the same letter on the computer that they wrote on paper. This will give students additional practice with the keyboard and help them understand the abstract concept of computer folders and files.

Once students have created their files and folders on the computer, let each student close her/his file and folder and then try to reopen them. This will allow them to learn that the computer saves their folders and that their files can always be found in that folder. Extending upon what they learned in part one of this lesson, the system of files and folders on the computer organizes and stores (**saves**) their information in a way that makes it easy to find again later.

Assessment: It is helpful for students to have an opportunity to reflect upon what they have practiced and learned through the activities of this lesson. As they review what they have learned, you also gain the opportunity to assess their level of understanding of the concepts covered in this lesson and addressed by the benchmarks. Ask students:

- Let's talk about what these words mean (computer, screen, keyboard, mouse, file, folder, and save).
- What is the same about your paper folders and files and your computer folders and files?
- What is different?
- Let/s think about what we could use computer folders/files for. What are some ideas?
- If you have a computer at home, would this folder be there? This file? Why not?

In addition to a class discussion, encourage students to talk about how they created their folders/files. Depending on your group's literacy level, you can expect a range of pictorial and linguistic communication of their experience. All students, though, can describe their actions and experience about working on the computer in a journal. If you are feeling extra creative, you can have students create paper and computer journal pages to keep in their respective folders!

Extensions

For another Science NetLinks lesson that looks at how information can be more easily managed and retrieved if it is logically sorted and stored, go to [Sorting](#).

You can really challenge your students by creating a class folder. The class folder would contain each student's folder/file. This builds another level of understanding about the way a computer can store information so that it can easily be found later. You can facilitate student learning that if every student in the school had a folder, it would be easier to locate their folder by classroom

than to have to look through hundreds of individual folders.

Have students create additional files to keep in their folder. This is a project that can be ongoing throughout the school year.

Consider some of the ideas in the lesson plans listed on these webpages:

- [Altering Text Size, Color and Font](#)
- [Introduction to Computers and the Internet: Language Arts Skills - Unit Plan](#)

Created :04/15/2004