

## UNC-TV's PreK-12 Winter 2005 Newsletter



The new year has begun and will be filled with many special days and events. Remember the importance of reading and discussing with children the reasons behind these special events. Reading with children on a daily basis and then discussing what is read is important in literacy development.

Learning to read and write is an exciting adventure for a young child. This adventure can begin in infancy and last a lifetime. There are many ways to indirectly enhance a broad range of reading skills in the home. Aside from food boxes and packages, directions for using tools and making repairs, taking medication, and other printed matter, there is a daily "reader" that reaches practically every home in America. It's the newspaper-and it's a veritable goldmine for encouraging and developing reading, thinking, and learning skills. The same is true of magazines of interest.

Helping students in grades K-12 to become readers, writers, and lovers of literature is a rewarding and challenging task. Parents and educators can use these cold winter months to take advantage of by encouraging reading and writing.

### January

1-1 [New Years Day](#)

1-17 [MLK Jr.](#)

- [National Thank You Month](#)
- [National Eye Care Month](#)
- [National Volunteer Blood Donor Month](#)

### February

2-2 [Groundhog Day](#)

2-21 [Presidents' Day](#)

- [American Heart Month](#)
- National Dental Month
- [Black History Month](#)

### March

3-2 [Read Across America Day](#) / [Dr. Seuss Birthday](#)

- [National Nutrition Month](#)
- [National Women's History Month](#)
- Save Your Vision Week - 1st week in March
- National Poison Prevention Week - 3rd week in March

## Sample TeacherSource Lesson Plans for PreK-12 “Winter Fun”

### Grade Level: PreK

#### **Mister Rogers' Neighborhood - Birdfeeder**

**Subject:** Arts & Literature, Science & Technology

**Topic:** Crafts, Life Science

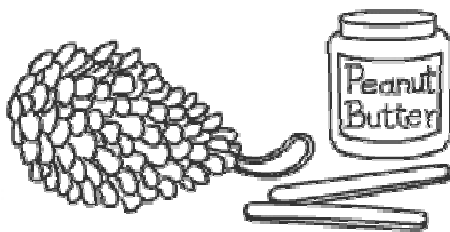
**Resource Type:** Project

Help birds find food in the winter months by making them a pinecone birdfeeder.

#### **Hang a birdfeeder near a window**

Want to help the birds find food, especially in the winter months? Make them a bird feeder. Tie a piece of string around a pinecone. Spread peanut butter into the grooves and hollows with a Popsicle stick or plastic knife. Roll the pinecone in birdseed or sunflower seeds. Hang the birdfeeder near a window so you can watch the birds come to eat.

#### **Build a Birdfeeder**



Children know they need adults to give them a great deal of care in order to have food, shelter, daily needs met. How good it can be for children to be the caregivers and have the opportunity to care for others, like offering food for the birds. And how exciting it can be for children to watch the birds as they come to feed and to have a close-up opportunity to learn about some of the birds' habits.

### Grade Level: K-2, PreK Age Range: 3-5

#### **Arthur - Snow Globes**

Create a "snowstorm-in-a-jar" with an empty baby food jar. Related episode: The Long, Dull Winter

**Subject:** Arts & Literature, Science

**Topic:** Crafts (Science)

**Resource Type:** Lesson Plan

#### **SNOW GLOBES—make a snowstorm in a jar**

##### **Materials**

- Baby food jars and lids (empty and clean)
- Felt
- Metallic glitter or confetti
- Plastic "snow" (available at craft stores)
- Small items (shells, rocks, pine cones, toys)
- Water
- Waterproof glue (hot glue or florist clay)

##### **Directions**

Ask your children what they like to do in the snow. (If it doesn't snow where you live, ask them to imagine what they would do if it did.) Making "snowstorms in a jar" with

your children is a fun activity no matter where you live. (As always, be sure to supervise the use of glass.)

- **Glue:** Help each child glue a small item on the inside lid of a baby food jar.
- **Fill:** Add some plastic snow and glitter to the jar, and then fill it with water.
- **Seal:** Put glue around the dry inside edge of the lid and screw it on tight. Finally, glue a felt circle on the lid, and turn the jar upside down.
- **Shake:** When children shake the jars, their snowstorms will come to life and they can remember the fun they had (or imagined!) in the snow.

Based on an activity in Play and Learn with Arthur, Volume 2

**Document:** NC Science Standard Course of Study

**Standards matching this resource:**

**2.02** Identify types of precipitation, variations in wind, sky conditions and day and night changes.

**3.02** Observe the angular position of the sun over several months during the school year and relate to seasons.

**4.01** Analyze the water cycle.

**4.02** Analyze the formation of clouds and their relation to weather systems.

**3.04** Associate the revolution of the Earth around the sun and the tilt of the Earth's axis with the seasons.

**4.02** Analyze the cycling of matter: water, carbon, and nitrogen in systems.

**5.03** Analyze weather systems. Movement humidity cloud formation precipitation

**Grade Level:** 3-5

**Cyberchase - Fill 'er Up!**

Make and compare line graphs based on filling up different shaped bottles with water. Make predictions about which bottles match which graphs.

**Subject:** Math

**Topic:** Measurement, Data Analysis, Measurement, Patterns/Functions & Algebra

**Resource Type:** Lesson Plan

**Math Topic:** Graphs **Subtopic:** Line Graphs **Grades:** 3-5

In this activity, students make and compare line graphs as determined by the shapes of different bottles, and make predictions about which bottles match which graphs.

**Learning Objective:** Students make and use line graphs to track change and make predictions.

**NCTM Standard:** Data Analysis & Probability

## **DIRECTIONS**

**Materials Needed For demonstration:**

- 2 large sheets of paper for graphing
- 2 see-through plastic containers (See "Tips.")
- Container of water
- ¼-cup measuring cup
- Funnel

- Centimeter ruler
- Paper towels
- Pie pan

### **For Each Group:**

- Copy of “Fill ‘Er Up!” activity sheet (or use blank graph paper.)(Printable Image)
- 1 see-through plastic container (See “Tips.”)
- Container of water
- ¼-cup measuring cup
- Funnel
- Centimeter ruler
- Pie pan
- Paper towels

**Class periods:** 1-2

### **TIPS:**

- Use 16- to 20-ounce containers of different shapes, such as wide-mouth, straight jars (peanut butter, jelly); hourglass-shape bottles (dishwashing liquid), short-neck bottles (water), and long-necked bottles (ketchup).
- See-through containers make it easier to measure the height of the water.

### **Demonstration**

1. To prepare, make two graphs as shown on the student activity sheet. (If you don't have the student activity sheet, simply plot numbers 0-20 on the horizontal axis and label it “Number of Measures.” Plot numbers 0-20 on the vertical axis and label it “Height of Water in Centimeters.”) Select two straight-sided containers of different shapes, such as an 18-ounce peanut butter jar and a pint-size deli container.

2. Have a student pour water, one measure at a time, into the first container. After each pour, have another student measure the height of the water with the ruler and mark it on the first graph. Do this until the water reaches the top of the jar. As the line grows on the graph, invite students to predict what the line will ultimately look like. (Answers may vary. Accept all responses.)

**TIP:** Continue pouring until the water begins to overflow into the pie pan. That way you'll be able to see on the graph exactly where the top of the jar is.

3. Make the pours, marking the graph as you go. Compare the finished graph with student predictions.

4. Repeat Steps 2 and 3 with the second container. Discuss the relationship between the containers' shapes and the graphs they produced. How are the graphs alike? (They both show how the height of the water changes with the number of pours.) How are they different? (The lines have different slopes. In one, the water rose faster so the line is steeper.)

5. Tell students they are now going to make their own graphs with their own containers.

### **Group Activity**

1. Have students work in small groups. Distribute copies of the student activity sheet (or give them a graph as described in Step 1). Make sure each group's container holds about the same amount as the other groups, but is shaped differently.

2. Have each group fill a container and make a corresponding line graph.

**TIP:** Have paper towels on hand for spills.

3. When the groups are finished, post their graphs for all to see. Challenge students to match containers with graphs (keeping quiet when the graph is their own).

**DISCUSS:** How does each line graph tell the story of the container's shape? (The narrower the bottle, the steeper the slope on the graph. Wider bottles have a slope that is less steep. The slope of the line tells the bottle's shape.)

### **Fill 'Er Up!**

Make a graph. Label the horizontal axis "number of measures" and mark numbers 0-20; label the vertical axis "height of water in centimeters" and mark numbers 1-20. Mark your graph with each measure and watch how the line changes as you pour.

### **Standards Match**

Document: NC Mathematics Standard Course of Study

#### **Standards matching this resource:**

4.2 Answer questions about charts and graphs.

4.3 Construct graphs where symbols or scales represent multiple units.

4.4 Interpret information orally and in writing from charts, tables, tallies, and graphs.

4.1 Interpret and construct line graphs.

4.2 Explain the kinds of decisions that need to be made in selecting and constructing appropriate graphs including pictograph, bar, line plot, circle, and line graph.

3.4 Write a problem given a simple linear equation or inequality.

3.4 Investigate the concept of slope; use appropriate technology.

3.4 Investigate the concept of slope.

3.5 Determine and use slopes of linear relationships to solve problems. a) Find the slope of a line given the graph of the line, an equation of the line, or two points on the line. b) Describe the slope of the line in the context of a problem situation.

3.8 Use linear equations or inequalities to solve problems. Solve by: a) Graphing. b) Using properties of equality; justify steps used.

3.1 Use slopes to determine if two lines are parallel or perpendicular.

3.1 Describe graphically, algebraically and verbally real-world phenomena as functions; identify the independent and dependent variables.

3.1 Use slopes to determine if two lines are parallel or perpendicular.

3.1 Graph and use the basic functions (constant, linear, quadratic, cubic, square root, absolute value, reciprocal, rational, trigonometric, exponential, logarithmic, piecewise defined, and greatest integer) to solve problems. a) Compare information given by local behavior versus global behavior. b) Determine the symmetry of a given graph. c) Identify continuous and discontinuous functions and locates points of discontinuity. d) Graph transformations and combinations of transformations for all the functions. e) Find coordinates of maximum or minimum points of a given function. f) Write the equation of a function given a set of data or other descriptions of its behavior. g) Solve equations and inequalities; justify steps used. h) Compose two functions and find the domain of the composition. i) Analyze a function by decomposing it into simpler functions. j) Find the inverse of a function and the domain of the inverse.

1.2 Find the slope of a curve at a point.

3.4 Recognize definition of derivative.

3.6 Find instantaneous rate of change as the limit of average rate of change.

3.10 Use derivatives to model rates of change.

3.13 Recognize the definite integral of the rate of change of a quantity over an interval as the change of the quantity over the interval:  $\int_a^b f'(x) dx = f(b) - f(a)$ .

4.2 Approximate rates of change from graphs and tables of values.

3.5 Determine and use slopes of linear relationships to solve problems. a) Find the slope of a line given the graph of the line, an equation of the line, or two points on the line. b) Describe the slope of the line in the context of a problem situation.

3.7 Investigate and determine the effects of changes in slope and intercepts on the graph and equation of a line. a) Change only slope. b) Change only the x- or y-intercept. c) Change the slope and an intercept.

3.8 Use linear equations or inequalities to solve problems. Solve by: a) Graphing. b) Using properties of equality; justify steps used.

3.5 Use slopes to determine if two lines are parallel or perpendicular.

3.8 Use linear programming (systems of three or more inequalities) to solve problems.

## **Grade Levels 6-8**

### **American Masters—F. Scott Fitzgerald**

**Subject Areas:** Language Arts, Writing

#### **Introduction**

In this lesson plan, students study the biography and work of F. Scott Fitzgerald. They learn how the author used autobiographical elements in writing his stories, and they try a hand at writing a Fitzgerald-style story with autobiographical elements of their own.

#### **Objectives**

Students will:

- Learn about the life and work of F. Scott Fitzgerald in the context of the Jazz Age
- Understand how an author may use elements from his own life in the creation of fictional characters
- Create their own autobiography scrapbook
- Write a Fitzgerald-style short story, creating their own characters and applying elements from their own lives

#### **Materials**

- A videotape of **American Masters: F. Scott Fitzgerald**
- VCR and monitor
- A copy of the story "The Camel's Back," by F. Scott Fitzgerald from the book **Six Tales of the Jazz Age** (Charles Scribner's Sons: New York, 1960.)

#### **Language Arts:**

- Uses the general skills and strategies of the writing process
- Evaluates own and others' writing (e.g., applies criteria generated by self and others, uses self-assessment to set and achieve goals as a writer, participates in peer response groups)
- Uses content, style, and structure (e.g., formal or informal language, genre, organization) appropriate for specific audiences (e.g., public, private) and purposes (e.g., to entertain, to influence, to inform)
- Writes compositions about autobiographical incidents (e.g., explores the significance and personal importance of the incident; uses details to

- provide a context for the incident; reveals personal attitude towards the incident; presents details in a logical manner)
- Writes biographical sketches (e.g., illustrates the subject's character using narrative and descriptive strategies such as relevant dialogue, specific action, physical description, background description, and comparison or contrast to other people; reveals the significance of the subject to the writer; presents details in a logical manner)
    - Uses the general skills and strategies of the reading process
    - Establishes and adjusts purposes for reading (e.g., to understand, interpret, enjoy, solve problems, predict outcomes, answer a specific question, form an opinion, skim for facts; to discover models for own writing)
    - Uses specific strategies to clear up confusing parts of a text (e.g., pauses, rereads the text, consults another source, represents abstract information as mental pictures, draws upon background knowledge, asks for help)
    - Understands specific devices an author uses to accomplish his or her purpose (e.g., persuasive techniques, style, literary form or genre, portrayal of themes, language)
    - Reflects on what has been learned after reading and formulates ideas, opinions, and personal responses to texts

*\*\*Lesson plan by Ann Willmott Andersson ([akwa@earthlink.net](mailto:akwa@earthlink.net))*

**Document:** NC English Language Arts Curriculum

**Standards matching this resource:**

5.07 Edit (with assistance) to use conventions of written language and format.

- Nonfiction (autobiographies, informational books, diaries, journals).
- Reading a variety of literature and other text (e.g., novels, autobiographies, myths, essays, magazines, plays, pattern poems, blank verse).
- Explaining and interpreting archetypal characters, themes, settings.
- Making thematic connections among literary texts and media and contemporary issues.
- Relating ideas, styles, and themes within literary movements of the United States.
- Contrasting use of language conventions of authors in different time periods of United States literature.
- An appreciation of how themes relate among texts.

## Grade Level: High, Middle

### **American Experience - Alone on the Ice**



No one before Richard Byrd had ever experienced winter in the interior of the Antarctic. Learn about this famous explorer through this informational Web site and online teaching guide.

**Subject:** Social Studies **Topic:** Geography, Geography, Archaeology & Anthropology, United States History: 1900 - Great Depression, World History: 1900 - World War II

**Resource Type:** Lesson Plan

**Time Period:** 1926 - 1971

**Themes:** Exploration, aviation, the role of the media, heroism

In June 1934, Richard Byrd lay alone in a small hut below the polar ice, hovering near death. No one before Byrd had ever experienced winter in the interior of the Antarctic. In an age of heroes, he was one of America's greatest. An explorer, aviation pioneer and scientist, Byrd was also an egotist, a risk-taker, and, his critics claim, a man who sometimes took credit for the accomplishments of others.

#### **Before Viewing Discussion:**

1. How do students define heroes? Do they have more than one definition? List some examples of heroes on the board and define what about their lives and actions made them a hero.
2. Before viewing the film, find out what students know about Antarctica. When was it discovered? What makes it unique? Have they ever known anyone who has visited it? What was it like? Why do they think people would be interested in it?

#### **After Viewing Discussion:**

1. Look back at students' definitions of heroes. Based on their definitions, do they consider Richard Byrd a hero? Why or why not? How do they balance his more human and fallible side with his heroic image? What do they think are the most important things he accomplished?
2. Why do you think Byrd's second expedition was such an important media event? [Answers may include the development of public relations, the need for escapism during the Depression, Byrd's greater notoriety, etc.] Have students research how the role of the media changed in the first four

decades of this century. How did the field of PR develop? corporate sponsorship? (Another interesting American Experience film that explores this subject is "Mr. Miami Beach" which premiered last year.)

3. Split students into groups to do research on Antarctica. What was the 1959 Antarctic Treaty? How is the territory currently managed? What is U.S. involvement? What types of activity happen there, both scientific and otherwise? Does anyone live there on an ongoing basis? What are conditions like? What resources exist there? Why is it important?

**Educators & Librarians: You may order "Alone on the Ice" at PBS Video**

Document: NC Social Studies Standard Course of Study

**Standards matching this resource:**

5.2 Chart European expansion into other world areas and cite effects of this expansion on Africans, Native Americans, Asians, and Europeans (1400-1800).

9.1 Analyze and trace developments in literary, artistic, and religious traditions over time as legacies of past societies.

1.2 Analyze elements of a culture.

5.2 Analyze non-material expressions of the culture in terms of their usefulness to the culture.

**IN THE NEWS**



**Grade Level: Elementary**

**[Ready To Grow](#) Pilot**

**[INSERT PICTURES FROM READY TO GROW WORKSHOP]**

UNC-TV was awarded a grant through the U. S. Department of Education, Maryland Public Television and PBS Kids Ready To Learn to conduct a Ready To Grow Pilot in North Carolina.

A Ready To Grow workshop was conducted at UNC-TV on Wednesday, November 17, 2004, twenty-eight (28) participants from Alamance, Chatham, Durham, Guilford, Granville, Martin, Pitt, Robeson, Vance, Wake, Warren, and Wayne counties attended.

Ready To Grow is designed to meet the needs of after school programs. Ready To Grow workshops explore ideas on helping to make every TV viewer—A “Smart TV Viewer”. Media literacy helps our children be better prepared to choose wisely. Workshops also discuss how to meet children’s needs at various stages in their development. This is especially important for after school programs that work with multi-age groups of children. Participants practice using Ready To Grow materials as starting points for new learning adventures for children ages 6-12.

Ready To Grow workshops are more than a place where you learn to put Ready To Grow into practice. They are also times to share triumphs, successes, concerns and feedback.

Click [here](#) to see photographs from the workshop.

For more information contact: Pamela Hines, PreK-12 Manager [phines@unctv.org](mailto:phines@unctv.org) or call 919-549-7149 or visit the Ready To Grow website <http://mpt.org/readytogrow/families/whatis.shtml>

### **Birth To Kindergarten Degree**

The BK faculty and College of Education at Western Carolina University take great pleasure in partnering with Asheville-Buncombe Technical Community College to offer the Birth to Kindergarten baccalaureate degree in Asheville. This second BK cohort program will begin spring semester, 2005. For more information contact: Dr. Eliza Dean [edean@email.wcu.edu](mailto:edean@email.wcu.edu) or (828) 227-3349

### **ZOOM Leaving PBS**

Public station WGBH in Boston, which produces "Zoom," has decided to cancel the five-time Emmy-nominated children's show because of depressed ratings. "Zoom" was heralded by many for encouraging kids to submit story lines via the Web. The final season, already taped, will air between April and June next year.

[<http://r.smartbrief.com/resp/svDxrlkHgEcNACPj>] The Boston Globe (12/9)

### **TeacherLine Comes to North Carolina**

PBS TeacherLine, funded by a grant from the U.S. Department of Education, is committed to helping teachers acquire the skills they need to prepare students for a successful future. PBS TeacherLine provides online professional development through facilitated courses that meet national standards, supportive and collaborative learning communities and exemplary Internet-based resources.

### **Ensures quality with research-based content**

TeacherLine’s research-based course content is developed in collaboration with major

professional organizations and leading experts in instructional strategies and content such as NCTM, IRA, NCTE, and ISTE.

### **Meets NCLB requirements**

- Promoting initiatives that provide schoolteachers, principals and administrators with the capacity to integrate technology effectively into curricula and instruction that are aligned with the challenging state academic content and student academic achievement standards, through such means as high-quality professional development programs. (Title II, Part D).
- Enhancing the ongoing professional development of teachers, principals and administrators by providing constant access to training and updates about research in teaching and learning through electronic means. (Title II, Part D).
- Providing professional development that is "high quality," sustained, intensive and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom. (Title IX, Part A).
- Developing activities that produce a demonstrable and measurable effect on student academic achievement.

For more information contact Emily M. Castleberry at [ecastleberry@unctv.org](mailto:ecastleberry@unctv.org) or (919) 549-7190.

## **SITES TO SEE**



### **Education News and Information for Parents and Teachers**

**For Education News Parents Can Use Schedule visit**

<http://www.ed.gov/news/av/video/edtv/schedule.html>

**For US Department of Education Budget news visit**

<http://www.ed.gov/about/overview/budget/news.html>

### **Google to Scan Books from School Libraries**

Discover how Harvard, Stanford and the University are working with Google to provide this online library resource <http://www.eschoolnews.org/>

### **North Carolina Standard Course of Study (K-12)**

This web page serves as a curriculum terminal from which you can travel to specific goals and objectives based on discipline and grade level. This service provides a convenient way for teachers, administrators, and parents to verify the instructional objectives of the Standard Course of Study at a given grade and subject area.

<http://www.ncpublicschools.org/curriculum/>

## Coming To UNC-TV This Winter

**Grade Level:** Middle and High School

### **Auschwitz: Inside the Nazi State**

Airing at 9-11 p.m. January 19 (Episodes 1 & 2) and 26 (Episodes 3 & 4), and February 2 (Episodes 5 & 6), 2005. For more information visit: [www.pbs.org/auschwitz](http://www.pbs.org/auschwitz)

### **February One**

Airing February 1, 2005 at 10:00pm

Civil rights in Greensboro during the 1960's. For more information visit:

[www.februaryonedocumentary.com](http://www.februaryonedocumentary.com)

### **Slavery and the Making of America**

Airing February 9<sup>th</sup> from 9-11 p.m. For web guide visit: [www.pbs.org/previews/slavery](http://www.pbs.org/previews/slavery)