Tennessee Junior 4-H Camp Curriculum: Creating, Implementing, and Evaluating Educational Programming Using Research-Based Practices in Youth Development and Instructional Design

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Tennessee Junior 4-H Camp Curriculum: Creating, Implementing, and Evaluating Educational Programming Using Research-Based Practices in Youth Development and Instructional Design

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Author Note

This capstone project was created to fulfill requirements of the Chancellor’s Honors Program in cooperation with the 4-H/Agricultural Leadership, Education, and Communications department and the University of Tennessee Extension Clyde Austin 4-H Center.

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Abstract

This project shows the process of creating, implementing, and evaluating an interdisciplinary curriculum for junior 4-H camp at the University of Tennessee Extension Clyde Austin 4-H Center in Greeneville, Tennessee. Four lessons were developed using research-based practices in experiential learning and instructional design, including the Richards Working Model of Curriculum Development and Robert Gagne’s method of instructional design.

During the summer camping season of 2017, 1,184 students learned about Tennessee history and life skills while developing their skills in art, music, science, math, and language arts at 4-H camp. Campers in grades 4-6 learned about Sequoyah’s invention of the Cherokee syllabary, endangered species in the Great Smoky Mountains National Park, Pat Summitt’s leadership as the head coach of the Tennessee Lady Volunteers Basketball team, and the history reflected in the state songs of Tennessee.

Responses from camper evaluations indicate 54% of the sampled population learned from the curriculum, and evaluations from volunteer leaders and 4-H agents indicated frustration with various aspects of the educational sessions. This feedback and practitioner reflections guide future recommendations for future curricula.

Keywords: curriculum development, instructional design, experiential learning
Tennessee Junior 4-H Camp Curriculum: Creating, Implementing, and Evaluating Educational Programming Using Research-Based Practices in Youth Development and Instructional Design

Introduction

Background

This project focuses on my interest in effectively teaching children at 4-H Camp, a unique place where youth have developed positive life skills for generations. After completing two years as a camp staff member at the Clyde Austin 4-H Center in Greeneville, Tennessee, I served in a leadership position as the camp’s program assistant for the 2017 camping season. As program assistant, my primary responsibility was developing interdisciplinary educational sessions for our camp curriculum. This was a natural role for me to step into, as I have experience in evaluating and developing curriculum under the supervision of Dr. Jennifer Richards, the Curriculum Specialist for Tennessee 4-H Youth Development. I took Dr. Richards’s graduate-level curriculum development course in the Agricultural Leadership, Education, and Communications (ALEC) department to learn the basics of curriculum development.

Problem

The theme for 2017 Junior 4-H Camp at Clyde Austin 4-H Center in Greeneville, Tennessee was Tennessee Heritage. In 2013, the educational sessions under the same theme featured crafts and games that loosely reflected history (G. Fay, personal communication, January 17, 2017). I saw an opportunity for creating a more effective educational curriculum using research based practices in youth development and instructional design. Utilizing Robert Gagne’s method of instructional design (Gagné & Briggs, 1979), the experiential learning model (Kolb, 1984), and Jennifer Richards’s curriculum development model (Richards, 2016), I created four original, interdisciplinary lessons aligned to Tennessee state standards (Tennessee Department of
Education, 2017), Tennessee’s Innovative Programming Priorities for 4-H (Richards, 2017), American Camp Association standards (American Camp Association, 2016), and the Clyde Austin 4-H Center’s goals (UT Extension, 2017).

Each week, approximately 200 campers in grades 4-6 learned about Sequoyah’s invention of the Cherokee syllabary, endangered species in the Great Smoky Mountains National Park, Pat Summitt’s leadership as the head coach of the Tennessee Lady Volunteers Basketball team, and the history reflected in the state songs of Tennessee. During the five weeks of summer camp, 1,184 students learned about Tennessee history and life skills while developing their skills in art, music, science, math, and language arts at 4-H camp.

**Purpose**

This project presents the curriculum, the research behind the curriculum, and suggestions for future curricular implementations based on an analysis of camp evaluation data. This project challenged me as a future secondary social science educator to create learning experiences that are effective and engaging for children in a summer camp setting, and it is my hope that it sets a precedent for future 4-H summer camp curricula.
Method

I created the curriculum using the Richards Working Model of Curriculum Development (Richards, 2016), which is summarized in Figure 1.

![Richards Working Model of Curriculum Development](image)

**Figure 1**

**Learning Needs**

The first step in the Richards Model is to determine *learning needs*. Learning needs are also known as outcomes, objectives, goals, or indicators, and they answer the question, “What knowledge, skills, and dispositions do students need to master?” I wanted campers to learn academic content knowledge that would supplement their school year education, so I consulted the Tennessee State Educational Standards for grades 4-6 when thinking about learning needs. To stay true to the intentions of 4-H camp, I also reviewed Tennessee’s Innovative Programming Priorities (TIPPs for 4-H) (Richards, 2017), American Camp Association Program Development
Standards (American Camp Association, 2016), and the Clyde Austin 4-H Center’s goals (UT Extension, 2017).

After discussions with Greg Fay, the Clyde Austin 4-H Center Program Director, James Swart, 4-H/ALEC Graduate Assistant, and Dr. Richards, I determined that our campers would benefit most from a blend of social studies standards and either English/Language Arts (ELA) standards or Science, Technology, Engineering, and Math (STEM) standards. I also recognized that project boxes should appeal to campers who have diverse interests, so I included at least one of the following components into each lesson: sports, art, music, or recreation.

*Figure* 2 shows my handout for a camp planning meeting on February 12 that includes the learning needs and overall goals for project boxes. After approval from the camp planning committee, Fay, Swart, and Richards, I wrote the first draft of learner needs, which are detailed in *Figures 3, 4, 5, and 6.*
2017 Junior 4-H Camp Project Box Curriculum

Our Program Assistant is creating project boxes that are engaging, educational, and aligned to state standards.

1. Heritage is “the traditions, achievements, and beliefs that are part of the history of a group of people.” Following this, we will incorporate either history and geography into each project box.

2. Each lesson will focus on a STEM (Science, Technology, Engineering, & Mathematics) or ELA (English & Language Arts) subject aligned to Tennessee State Standards.

3. To ensure that each camper finds something of interest in the project boxes, each lesson will include a sports, art, music, or recreation component.

4. The curriculum will include 4-H Life Skills outcomes.

5. Project box lessons will be written in “teacher talk” so that they are as easy as possible for our volunteer leaders to teach!

Figure 2.

Tennessee Geography
- Geography
- Technology
- Art

Tennessee Music
- History
- Language Arts
- Music

Tennessee Athletics
- History
- Engineering
- Sports

Tennessee Parks
- Geography
- Science
- Recreation
Protecting Species in the Smokies

Learning Outcomes
Campers will...
- Identify endangered species in the GSMNP
- Describe the ways human activities affect species
- Create a poster to encourage people to protect endangered species

Tennessee: Science, Grade 4
GLE 0407.2.1 Analyze the effects of changes in the environment on the stability of an ecosystem.

Tennessee: Science, Grade 5
GLE 0507.2.3 Establish the connections between human activities and natural disasters and their impact on the environment.

Tennessee: Science, Grade 6
GLE 0607.Inq.3 Synthesize information to determine cause and effect relationships between evidence and explanations.

American Camping Association: Program Development
PD.3 Program Progression: Camp must allow for campers to experience progression, challenge, and success. (D/R)
PD.5 Social Development: Camp programs should provide specific activities that are designed to help campers develop socially.
PD.7 Environmental Activities: Camp must provide program activities that help develop comfort, appreciation, awareness, and responsibility toward the natural environment.

Clyde Austin 4-H Center
Campers will have the opportunity to enjoy, respect, and understand the basics of nature through:
- Developing an appreciation for nature by learning about different plants and animals
Campers will learn new skills and enhance present talents and interests through:
- Encouragement to try new activities
Campers will develop an appreciation for their own skills and those of others through:
- Understanding the importance of all learning
- Learning to value individual diversity

Sources:
https://www.nps.gov/grsm/learn/nature/te-species.htm
http://sciencenetlinks.com/student-teacher-sheets/save-our-animals-project/
Sequoyah’s Talking Leaves

Learning Outcomes
Campers will...
- Duplicate the symbols that spell Sequoyah and Tsali (Cherokee) using the Modern Cherokee Syllabary
- Summarize the contributions of Sequoyah
- Compose a description for the Sequoyah Statue in the U.S. Capitol

Tennessee: Social Studies, Grade 4
4.54 Describe and explain the contributions of Sequoyah. (C, H, TN)

Tennessee: English and Language Arts, Grade 6
Speaking and Listening Standards, Comprehension and Collaboration
1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
   d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.
2. Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study
3. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

American Camping Association: Program Development
PD.3 Program Progression: Camp must allow for campers to experience progression, challenge, and success. (D/R)
PD.5 Social Development: Camp programs should provide specific activities that are designed to help campers develop socially.

Clyde Austin 4-H Center
Campers will learn new skills and enhance present talents and interests through:
- Encouragement to try new activities
Campers will develop an appreciation for their own skills and those of others through:
- Understanding the importance of all learning
- Learning to value individual diversity

Source
http://www.history.org/history/teaching/enewsletter/volume9/sept10/teachstrategy.cfm

Figure 4.
Pat Summitt’s Sports Legacy

Learning Outcomes
Campers will:
- Recognize that Pat Summitt’s Definite Dozen reflects personal and social responsibility
- Apply rules, procedures, and safe practices during a basketball shooting game
- Calculate their team’s total by writing a word problem and solving it with multiplication

Tennessee: Math, Grade 4
Operations and Algebraic Thinking
2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

Tennessee: Physical Education, Grades 3-5
Personal and Social Responsibility
The student will:
- apply rules, procedures and safe practices
- treat others with respect during physical activity

American Camping Association: Program Development
PD.3 Program Progression: Camp must allow for campers to experience progression, challenge, and success. (D/R)
PD.5 Social Development: Camp programs should provide specific activities that are designed to help campers develop socially.

Clyde Austin 4-H Center
Campers will learn to cooperate with and be tolerant of others by:
- Participating as a member of the camp family
- Learning to accept others different from themselves by appreciating their good qualities and de-emphasizing their faults
Campers will learn new skills and enhance present talents and interests through:
- Encouragement to try new activities
- The opportunity to receive instruction in recreation which will enable them to move to a higher level of competency in that skill
Campers will develop an appreciation for their own skills and those of others through:
- Understanding the importance of all learning

Sources
http://www.mathblaster.com/coolmath/articles/basketball-and-math
http://www.mathworksheetscenter.com/mathtips/basketballmath.html
http://www.bigwest.org/fastbreak/files/3_math.pdf

Figure 5.
Discovering Tennessee Music

Learning Outcomes
Campers will...
- Recall the significance of Tennessee in popular music
- Describe characteristics of Tennessee culture within a musical and historical context
- Write a radio script that describes a Tennessee song and explains its importance

Tennessee: Social Studies, Grade 5
5.64 Refer to details and examples about the significance of Tennessee in popular music, including Sun Studios, Stax Records, Elvis Presley, B.B. King, and Memphis, Tennessee. (C, TN)

Tennessee: Music, Grade 4
8.2.3 Demonstrate the relationship of music to literature, mathematics, science, and/or social studies.
9.1.2 Discuss characteristics of selected cultures within a musical and/or historical context using teacher-given parameters.

Tennessee: English and Language Arts, Grade 6
Speaking and Listening Standards, Presentation of Knowledge and Ideas
4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

American Camping Association: Program Development
PD.3 Program Progression: Camp must allow for campers to experience progression, challenge, and success. (D/R)
PD.5 Social Development: Camp programs should provide specific activities that are designed to help campers develop socially.
PD.7 Environmental Activities: Camp must provide program activities that help develop comfort, appreciation, awareness, and responsibility toward the natural environment.

Clyde Austin 4-H Center
Campers will learn to cooperate with and be tolerant of others by:
- Participating as a member of the camp family
Campers will learn new skills and enhance present talents and interests through:
- Encouragement to try new activities
Campers will develop an appreciation for their own skills and those of others through:
- Understanding the importance of all learning

Sources
http://popmusic.mtsu.edu/homeland/homelandlessonkit.pdf

Figure 6.
Assessment Methods

Following the Richards Model, my next step after determining learner needs was to develop *assessment methods*. Assessment methods answer the question, “How will you assess to determine if the learning needs were met?” Strong lesson plans include both formative and summative assessments; formative assessments occur during instruction, while summative assessments occur at the end of instruction. Formative assessments guide instructors and help students to self-monitor their learning, and summative assessments indicate the extent to which students mastered learning outcomes (Richards, 2016). The camp environment presented a challenge when developing assessments; no child wants to take a test while at summer camp! Instead, I sought creative ways to assess learning needs. The final lesson plans include assessments like creating posters, responding to experiences on student handouts, writing songs, and playing games. Figure 7 shows the final formative and summative assessments for each lesson.

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Formative Assessments</th>
<th>Summative Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protecting Species in the Smokies</td>
<td>Create an endangered species profile worksheet; discuss with small group about the ways human activities affects species</td>
<td>Create a poster to encourage people to protect endangered fish species</td>
</tr>
<tr>
<td>Sequoyah's Talking Leaves</td>
<td>Retell the Sequoyah story using the talking leaves as a guide; draw symbols with the help of a worksheet</td>
<td>Answer questions about why the Cherokee syllabary was important</td>
</tr>
<tr>
<td>Pat Summitt's Sports Legacy</td>
<td>Answer questions about the definite dozen; verbal understanding check of game rules; practice an example word problem related to the game</td>
<td>Play the game; write and solve team total; describe the definite dozen principles used during the game</td>
</tr>
<tr>
<td>Tennessee State Songs</td>
<td>Describe thoughts and feelings while listening to the songs</td>
<td>Write a new Tennessee state song</td>
</tr>
</tbody>
</table>

*Figure 7.*
Pedagogy

After creating assessment methods, I began the next phase in the Richards Model, pedagogy, which asks, “What research-based educational experiences can meet the learning needs?” Pedagogy can include the transmission modes of lecture and readings, but I sought active learning strategies when creating the curriculum. Active learning is when students analyze, synthesize, and evaluate ideas to create connections for themselves (Bonwell & Eison, 1991). This style of learning builds upon the work of John Dewey (1916), who asserted that education is not about sharing information by “telling”; rather, it is “an active and constructive process.” This is closely related to the 4-H slogan, “learn by doing” (Pledge and Motto, n.d.). The best example of active learning in this curriculum is found in Pat Summitt’s Sports Legacy, where the campers play a basketball shooting game to learn about solving multiplication word problem. The final pedagogy methods are summarized in Figure 8, and the assessments and pedagogy drafts are shown in Figures 9, 10, 11, and 12.

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Pedagogy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protecting Species in the Smokies</td>
<td>Video about the ways human activities affect species</td>
</tr>
<tr>
<td></td>
<td>PowerPoint presentation about endangered species in Abrams Creek</td>
</tr>
<tr>
<td></td>
<td>Readings about endangered fish species</td>
</tr>
<tr>
<td></td>
<td>Poster creation on flipchart paper</td>
</tr>
<tr>
<td>Sequoyah’s Talking Leaves</td>
<td>Give students talking leaves with vocabulary words from the story written on them</td>
</tr>
<tr>
<td></td>
<td>Read the story about Sequoyah</td>
</tr>
<tr>
<td></td>
<td>Tell students to add their talking leaf to the tree when they hear their word in the story</td>
</tr>
<tr>
<td></td>
<td>Ask students to re-tell the story of Sequoyah using the talking leaves as their guide</td>
</tr>
<tr>
<td></td>
<td>Draw syllabary symbols with the help of a worksheet</td>
</tr>
<tr>
<td>Pat Summitt’s Sports Legacy</td>
<td>Share Pat Summitt’s Definite Dozen by passing out copies and reading them aloud</td>
</tr>
<tr>
<td></td>
<td>Share game rules and scoring instructions by passing out copies and reading them aloud</td>
</tr>
<tr>
<td></td>
<td>Practice an example word problem related to the game</td>
</tr>
<tr>
<td></td>
<td>Play the game</td>
</tr>
<tr>
<td></td>
<td>Write and solve team total on the white board</td>
</tr>
<tr>
<td>Tennessee State Songs</td>
<td>Play Tennessee state songs</td>
</tr>
<tr>
<td></td>
<td>Complete the senses chart while listening to the songs</td>
</tr>
<tr>
<td></td>
<td>Write a new Tennessee state song</td>
</tr>
<tr>
<td></td>
<td>Present new songs to the entire group</td>
</tr>
</tbody>
</table>

*Figure 8.*
Protecting Species in the Smokies

Location: Dining Hall

Learning Outcomes
Campers will...
- Identify endangered fish in the GSMNP
- Describe the ways human activities affect species
- Create a poster to encourage people to protect endangered fish

Assessment
Formative
- Complete an endangered species profile worksheet
- Discuss with small group about the ways human activities affect species
Summative
- Create a poster to encourage people to protect endangered fish

Pedagogy
PowerPoint presentation about endangered species in Abrams Creek
Readings about endangered fish species
Video about the ways human activities affect species
Poster creation on flipchart paper

Sources:
https://www.nps.gov/grsm/learn/nature/te-species.htm
https://www.nps.gov/grsm/learn/nature/threatened-species-abrams.htm
http://sciencenetlinks.com/student-teacher-sheets/save-our-animals-project/
Sequoyah’s Talking Leaves

Location: Friendship Circle

Learning Outcomes
Campers will...
- Duplicate the symbols that spell Sequoyah and Tsalagi using the syllabry
- Summarize the contributions of Sequoyah to the Cherokee nation
- Compose a description for the Sequoyah Statue in the U.S. Capitol

Assessment
Formative
- Retell the Sequoyah story using the talking leaves as a guide
- Draw symbols with the help of a worksheet

Summative
- Write a description for the Sequoyah Statue in the U.S. Capitol

Pedagogy
Give students talking leaves with vocabulary words from the story written on them
Read the story about Sequoyah
Tell students to add their talking leaf to the tree when they hear their word in the story
Ask students to re-tell the story of Sequoyah using the talking leaves as their guide
Draw symbols with the help of a worksheet
Write a description for the Sequoyah Statue in the U.S. Capitol

Source
http://www.history.org/history/teaching/enewsletter/volume9/sept10/teachstrategy.cfm
Pat Summitt’s Sports Legacy

Location: Basketball Court

Learning Outcomes

Campers will...

- Recognize that Pat Summitt’s Definite Dozen reflects personal and social responsibility
- Apply rules, procedures, and safe practices during a basketball shooting game
- Calculate their team’s total by writing a word problem and solving it with multiplication

Assessment

Formative
- Answer questions about the definite dozen on individual white boards
- Check understanding of game rules using white boards
- Practice an example word problem related to the game

Summative
- Play the game
- Write and solve team total on the white board
- Write which of the definite dozen they used during the game

Pedagogy

Share Pat Summitt’s Definite Dozen by passing out copies and reading them aloud
- Ask questions about the definite dozen and have students answer on white boards
- Share game rules and scoring instructions by passing out copies and reading them aloud
- Practice an example word problem related to the game
- Play the game
- Write and solve team total on the white board
- Ask questions about the definite dozen and have students answer on white boards

Sources

http://www.mathblaster.com/coo/math/articles/basketball-and-math
http://www.mathworksheetscenter.com/mATHtips/basketballmath.html
http://www.bigwest.org/fastbreak/files/3_math.pdf

Figure 11.
Discovering Tennessee Music

Location: Rec Hall

Learning Outcomes
Campers will...
- Recall the significance of Tennessee in popular music
- Describe characteristics of Tennessee culture within a musical and historical context
- Write a radio script that describes a Tennessee song and explains its importance

Assessment
Formative
- Senses Listening Chart
Summative
- RAFT scenarios

Pedagogy
- Play Tennessee song
- Complete the senses chart while listening to the songs
- Share information on PowerPoint about songs
- Give groups different RAFT scenarios (some variation of a radio script about a Tennessee song)
- Present completed products to the entire group

Sources
http://popmusic.mtsu.edu/homeland/homelandlessonkit.pdf

Figure 12.
Content Knowledge

Planning the curriculum’s pedagogy allowed me to consider the next question: “What knowledge do students need to be successful in these educational experiences?” Richards classifies this as content knowledge. The outcomes and standards I used informed this process because I wanted each piece of the content to be purposeful. For each lesson, I carefully constructed materials that would allow students to participate in the learning experiences. For Protecting Species in the Smokies, I used official endangered species reports from the U.S. Fish and Wildlife Service. The full reports were too long for the given learning experience, so I selected excerpts from the reports that included the most relevant information.

Scope and Sequence

The last step of the Richards Model asks, “How can the content and experiences be organized to attain the learning needs?” For this step, I considered what made sense logistically given the camp setting and the revised Bloom’s Taxonomy, which is the standard way of organizing learning outcomes for practitioners (Krathwohl, 2002). This model is arranged in a hierarchical structure that includes knowledge and cognitive processes. Lower order thinking skills are featured at the bottom of the pyramid, and each level becomes increasingly indicative of higher order thinking skills. The levels of Bloom’s Taxonomy are shown in Figure 12. I also consulted Gagne’s Nine Events of Effective Instruction when organizing the lesson plans (Gagné & Briggs, 1979). The nine events are displayed in Figure 13.
Figure 12.

Gagne’s Nine Events of Effective Instruction

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaining Attention</td>
<td>Informing learners of the objectives</td>
</tr>
<tr>
<td></td>
<td>Stimulating recall of prior learning</td>
</tr>
<tr>
<td></td>
<td>Presenting the stimulus</td>
</tr>
<tr>
<td></td>
<td>Providing learning guidance</td>
</tr>
<tr>
<td></td>
<td>Eliciting performance</td>
</tr>
<tr>
<td></td>
<td>Providing feedback</td>
</tr>
<tr>
<td></td>
<td>Assessing performance</td>
</tr>
<tr>
<td></td>
<td>Enhancing retention and transfer</td>
</tr>
</tbody>
</table>

Figure 13.
Evaluation

After completing a series of peer reviews and edits, I sent the final curriculum to 4-H agents, the Tennessee 4-H Camping Specialist, and Eastern Region 4-H Program Leaders. I responded to questions by email and phone about the curriculum in the months leading up to camp. On the first day of each week of camp, I reviewed the curriculum with 4-H agents and volunteer leaders, and I oversaw each session to help with problems and questions.

As the program assistant, I led all evaluation efforts for the camp. Camp evaluation questions are determined each summer by the statewide camping curriculum team. Evaluations help us improve our programming by asking questions about people’s experiences each week. I distributed camp evaluations to campers, leaders, and staff on the last day of each week of camp. Approximately 100 campers completed a camp evaluation each week. Most campers completed the evaluation using Qualtrics software on an iPad or computer, but due to time constraints, some campers answered to questions on a paper copy which I later transcribed in Qualtrics. Question five asked campers what they learned during the project boxes, as seen in Figure 13.

The project boxes were about Protecting Species in the Smokies, Tennessee State Songs, Pat Summitt's Sports Legacy, and Sequoyah’s Talking Leaves. What did you learn during the project boxes?

Figure 13.

A total of 505 campers completed evaluations. I hand coded open-ended responses to the camping curriculum question using Excel by assigning color labels to each camper’s response. Each response received a blue label of learning or gray label of no learning. To be classified as
learning, the camper’s response had to describe a relevant piece of knowledge more detailed than simply “Sequoyah” or “about stuff.” Two hundred seventy-three camper responses showed evidence of learning, which is 54% of the sampled population. Six percent of campers left a blank response or did not answer the question. I then coded responses that described a camper’s level of interest in the curriculum. Seven percent of camper responses showed an interest in the curriculum, and 1% displayed boredom in the curriculum based on their feedback.

Each of the “learning” responses were then broken into subcategories by individual lesson. Some campers wrote responses that indicated learning in all lessons, and others only cited in one lesson. The highest percentage of learning was mentioned for Pat Summitt’s Sports Legacy at 21%, with Protecting Species in the Smokies at 20%. Eighteen percent of campers indicated learning about Sequoyah’s Talking Leaves, and 11% of responses shared evidence for learning about Tennessee State Songs. These summary of camper feedback is included in Figure 14.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Operational Definition</th>
<th>Color</th>
<th>Count</th>
<th>Sample Size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td>The camper’s response shows evidence of learning from the project boxes.</td>
<td></td>
<td>273</td>
<td>505</td>
<td>54%</td>
</tr>
<tr>
<td>No Learning</td>
<td>The camper’s response does not show evidence of learning from the project boxes.</td>
<td></td>
<td>200</td>
<td>505</td>
<td>40%</td>
</tr>
<tr>
<td>N/A</td>
<td>The camper's response is blank or does not answer the question.</td>
<td></td>
<td>32</td>
<td>505</td>
<td>6%</td>
</tr>
<tr>
<td>Interesting</td>
<td>The camper's response indicates interest in the project boxes.</td>
<td></td>
<td>33</td>
<td>505</td>
<td>7%</td>
</tr>
<tr>
<td>Boring</td>
<td>The camper’s response indicates boredom in the project boxes.</td>
<td></td>
<td>3</td>
<td>505</td>
<td>1%</td>
</tr>
<tr>
<td>Sequoyah</td>
<td>The camper’s response shows evidence of learning about Sequoyah's Talking Leaves</td>
<td></td>
<td>91</td>
<td>505</td>
<td>18%</td>
</tr>
<tr>
<td>Summitt</td>
<td>The camper’s response shows evidence of learning about Pat Summitt's Sports Legacy.</td>
<td></td>
<td>105</td>
<td>505</td>
<td>21%</td>
</tr>
<tr>
<td>Smokies</td>
<td>The camper’s response shows evidence of learning about Protecting Species in the Smokies.</td>
<td></td>
<td>99</td>
<td>505</td>
<td>20%</td>
</tr>
<tr>
<td>Songs</td>
<td>The camper’s response shows evidence of learning about Tennessee State Songs.</td>
<td></td>
<td>54</td>
<td>505</td>
<td>11%</td>
</tr>
</tbody>
</table>
Figure 14.

We asked all teen leaders, adult leaders, and 4-H agents to complete a camp evaluation on the last day of camp. *Figure 15* shows questions four and five, which asked the leaders and 4-H agents to evaluate the curriculum. *Figure 16* shows the responses to question four.

What did you think about the project boxes?

- [ ] Excellent
- [ ] Good
- [ ] Average
- [ ] Poor
- [ ] Terrible

Do you have any comments about the project boxes? If so, write them here.

Figure 15.

![Pie chart showing the responses to question four on the project boxes.](image-url)
Figure 16.

I hand coded the responses in the comment box based on the major topics. Thirteen percent of responses indicated the project boxes need to be more engaging, and 4% of responses reflected issues with the lesson plans for project boxes. 3% indicated frustration with the structure of project box sessions, which is feedback that focused on the timing and location of the educational sessions. 1% of leaders indicated the curriculum was interesting. This coding is displayed in Figure 16.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Operational Definition</th>
<th>Color</th>
<th>Count</th>
<th>Sample Size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>The leader's response indicates the project boxes need to be more engaging.</td>
<td></td>
<td>27</td>
<td>204</td>
<td>13%</td>
</tr>
<tr>
<td>Organization</td>
<td>The leader's response indicates an issue with the lesson plans for project boxes.</td>
<td></td>
<td>8</td>
<td>204</td>
<td>4%</td>
</tr>
<tr>
<td>Structure</td>
<td>The leader's response indicates frustration with the structure of project boxes.</td>
<td></td>
<td>7</td>
<td>204</td>
<td>3%</td>
</tr>
<tr>
<td>Interesting</td>
<td>The leader's response indicates the project boxes were interesting.</td>
<td></td>
<td>3</td>
<td>204</td>
<td>1%</td>
</tr>
</tbody>
</table>

Figure 16. Forty-three percent of leaders responded that the curriculum was average, poor, or terrible. Only 1% of leaders found the project boxes interesting. This evaluation data shows leaders would be more satisfied in their role at camp if the educational curriculum were more engaging and well-organized. Some leaders indicated they were not prepared to lead the project box sessions, and others suggested alternate times or locations for teaching the lessons. Appendix 1 shows the final versions of the camp curriculum in the Tennessee 4-H Lesson Plan Template based upon evaluation feedback from campers and leaders. The final versions also reflect the latest educational standards coding from the Tennessee Department of Education.
Conclusion

Recommendations

Based on the evaluation data from campers and leaders, I created a few recommendations for future educational curricula at Junior 4-H Camp:

- Develop training videos for leaders and agents to review before camp
- Present curriculum in the Tennessee 4-H Lesson Plan Template
- Use hands on activities in each lesson plan for maximum camper engagement and learning

Training

Leaders were frustrated with the lack of training received prior to teaching the educational sessions at camp. Many problems were resolved after further explanation or modeling of a concept, but leaders need more effective training about the lesson plans. I recommend recording instructional videos of the lesson’s pedagogy in action and providing ways for leaders to interact with the curriculum prior to camp so they might learn by doing as well.

Lesson plan template

An essential future component of summer 4-H camp curriculum should be presenting the curriculum in the Tennessee 4-H Lesson Plan Template. This template is efficient, simple, and provides consistency among other curricula products of Tennessee 4-H.

Project-based learning

Leaders and campers alike would benefit from lessons with higher amounts of active engagement. Some aspects of the worksheets, slideshow presentations, and readings were too passive. For future camp curriculum, I recommend considering the principles of Project-Based Learning to increase camper engagement by presenting real-world problems and resources to solve them (Blumenfeld et al. 1991).
Practitioner Reflections

This project shows the importance of using research-based practices in experiential learning and instructional design when developing 4-H camp curriculum. Following the Richards’s model for curriculum development provides an excellent framework for developing strong outcomes, assessments, and pedagogy. The working model also guided the content knowledge and organization of each lesson plan when paired with Gagne’s method of instructional design.

The active engagement strategies utilized were by far the most effective piece of this curriculum. Campers’ learning was highest in the project boxes with the most active engagement strategies, while boredom and lower levels of learning were present in lessons that were less active. However, the lessons with active engagement strategies required more effort and preparation from the leaders. Leaders were typically willing to engage with learners, but they were not always prepared due to the lack of training prior to the educational sessions.

Based on evaluation responses, 54% of campers provided evidence of learning from the camp curriculum. This is a solid starting place for developing effective junior 4-H camp curriculum, but I firmly believe 4-H camp curriculum developers can increase learning by refining the organization and structure of lesson plans with the lesson plan template, training leaders to teach the curriculum before camp, and providing project-based learning experiences for campers.
References


Pledge and Motto. (n.d.) Retrieved August 09, 2017 from
https://4h.tennessee.edu/Pages/pledge.aspx


https://extension.tennessee.edu/publications/Documents/PB1853.pdf

**Protecting Species in the Smokies**
Tennessee Heritage at Junior 4-H Camp

**Skill Level**
Beginner, Grades 4-6

**Learner Outcomes**
*The learner will be able to:*
- Identify endangered fish species in the Great Smoky Mountains National Park
- Describe the ways human activities affect species
- Create a poster to encourage people to protect endangered fish

**Educational Standard(s) Supported**

<table>
<thead>
<tr>
<th>Tennessee Science</th>
<th>Tennessee ELA</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLE 0407.2.1</td>
<td>4.RI.KID.1</td>
</tr>
<tr>
<td>GLE 0507.2.3</td>
<td>5.RI.KID.1</td>
</tr>
<tr>
<td>GLE 0607.Inq.3</td>
<td>6..RI.KID.1</td>
</tr>
</tbody>
</table>

American Camp Association
- PD.3, PD.5, and PD.7

**Success Indicator**
*Learners will be successful if they:*
- Complete an Endangered Species Profile
- Answer questions about human activity, fish habitats, and why the species are endangered
- Create an advertisement for protecting the given endangered species

**Time Needed**
45 Minutes

**Materials List**
- Endangered Species Profiles
- Pencils and Markers
- Flip Chart Paper

---

**Introduction to Content**
Campers will learn about how human activities affect species by studying two endangered fish species in the Great Smoky Mountains National Park. They will then think of ways to encourage people to protect endangered fish and create a poster advertising protection for the species.

**Introduction to Methodology**
Campers learn about how human activity affects species, and they complete an Endangered Species Profile using an official recovery plan for the given species. After reviewing information about the relationship between human activity and endangered species, campers will then create an advertisement to raise awareness about an endangered fish species.

**Sources**
- [https://www.nps.gov/grsm/learn/nature/te-species.htm](https://www.nps.gov/grsm/learn/nature/te-species.htm)
- [https://www.nps.gov/grsm/learn/nature/threatened-species-abrams.htm](https://www.nps.gov/grsm/learn/nature/threatened-species-abrams.htm)

**Author**
Hall, Alexis N. Program Assistant, Clyde Austin 4-H Center.
Terms and Concepts Introduction

The Duskytail Darter and the Smoky Madtom are two fish species in the Abrams Creek area of the Great Smoky Mountains National Park. Humans polluted their environment, and they are now endangered. Awareness of human activity’s impact and advocacy are crucial for protecting these endangered species.

Setting the Stage and Opening Questions

Play the video on slide 1 of the PowerPoint.

Go to slide 2 of the PowerPoint and read the learning objectives to campers.

Go to slide 3 of the PowerPoint. Ask campers,

“What is the name of the most popular national park in Tennessee?”

Great Smoky Mountains National Park

“What are some of the things you see in the national park?”

Mountains, Animals, Plants, etc.

“Did you know that some animals in the national park are endangered?”

Hopefully campers will say yes!

“Today we are going to learn about some species that are endangered in the Smokies.”

Go to the slide 4 of the PowerPoint.

Say, “These are pictures of some endangered species in the Abrams Creek area of the Great Smoky Mountains National Park. We are going to learn more about two fish species that are endangered in Abrams Creek. Some leaders are now going to pass out information about these species. Work with the person sitting next to you to learn about the species.”

Allow seven minutes for this part of the lesson.

Experience

Pass out an Endangered Species Profile and pencils to each pair of campers.

Say, “This is an official recovery plan from the United States Fish and Wildlife Service that has information about the fish species. Look through it and see what you can discover about the species. We are especially interested in learning why the fish is endangered and what its habitat is like.”

Allow seven minutes for this part of the lesson.

Say, “Now that you have learned about the species, use that information to complete the Endangered Species Profile Page with your partner.”

Allow five minutes for this part of the lesson.

Tips for Engagement

During this time, leaders should be actively engaged with the campers to help them complete the activity.

Remember, your enthusiasm for the activity makes a big difference in how the campers feel about it!

Leaders should visit each group to check on their progress during the lesson. If campers are stuck, ask them questions to help them figure out the answers.
Life Skills from TIPPs for 4-H

4th Grade
- Actively listen to what others are saying; be able to restate or summarize what has been said. (Heart)
- Communicate information effectively about a given topic. (Hands)

5th Grade
- When reading, consider ideas, thoughts, information, or messages that have been written. (Heart)
- Define issues of a given problem or situation. (Hands)

6th Grade
- Understand the meaning of the information. (Head Thinking)
- Send and receive information using speech, writing, gestures, and artistic expression. (Heart Relating)
- Coordinate the interaction to complete the task (work together). (Hands Working)

Share

Say, “Now, find another pair with the same species as you. Once you have a group of four, check your answers. After you have checked your answers, talk in your group about the ways human activities affect species.”

Help campers find another group with the same species. Then, check in with each group to see if their answers were similar. If they answered correctly, congratulate the campers for doing the activity correctly. If they missed an answer or two, help campers to find the correct answer and then congratulate them for a job well done. Before you leave the group, remind them to talk about the ways human activities affect species.

Allow five minutes for this part of the lesson.

Process

Go to slide 5 and ask, “What is one way that human activity affects endangered species?”

Go to slide 6 and ask, “How would you describe the habitat of the endangered fish in Abrams Creek?”

Generalize

Go to slide 7 and ask, “What is one reason why these two fish species are endangered?”

Answers to these questions are found in the supplementary information.

Apply

Go to slide 8 and say, “Park Rangers in the Great Smoky Mountains National Park have asked you to create online advertisements to raise awareness about the endangered species in Abrams Creek. These advertisements will be featured on Facebook and the National Park Service’s website.

Be sure to include these things:
- Both common and scientific names of animal
- Brief description of its habitat
- Description of the main reason why the animal is endangered
- Drawings or pictures of the animal

Make sure that your advertisement is interesting and informative! You will have 10 minutes to create your advertisement!”

Pass out a piece of flipchart paper and a pack of markers to each group. Encourage them to think creatively about how to best tell the story of their endangered species. When five minutes remain, say, “If you are finished, please bring it to the front of the room so a leader can help you hang it on the wall.”
Supplemental Information

Educational Standards Met, Answer Key

Tennessee Science, Grades 4-6
GLE 0407.2.1 Analyze the effects of changes in the environment on the stability of an ecosystem.
GLE 0507.2.3 Establish the connections between human activities and natural disasters and their impact on the environment.
GLE 0607.Inq.3 Synthesize information to determine cause and effect relationships between evidence and explanations.

Tennessee English & Language Arts, Grades 4-6
4.RI.KID.1 Refer to details and examples in a text when explaining what the text says explicitly; refer to details and examples in the text when drawing inferences from the text.
5.RI.KID.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
6.RI.KID.1 Analyze what a text says explicitly and draw logical inferences; cite textual evidence to support conclusions.

American Camping Association: Program Development
PD.3 Program Progression: Camp must allow for campers to experience progression, challenge, and success.
PD.5 Social Development: Camp programs should provide specific activities that are designed to help campers develop socially.
PD.7 Environmental Activities: Camp must provide program activities that help develop comfort, appreciation, awareness, and responsibility toward the natural environment.

Clyde Austin 4-H Center
Campers will have the opportunity to enjoy, respect, and understand the basics of nature through:
- Developing an appreciation for nature by learning about different plants and animals
Campers will learn new skills and enhance present talents and interests through:
- Encouragement to try new activities
Campers will develop an appreciation for their own skills and those of others through:
- Understanding the importance of all learning

Answer Key

What is one way that human activity affects endangered species?
The Smoky Madtom could become extinct from the human activities of logging, road and bridge construction and maintenance, mineral exploration and mining, and other projects that are not planned with the species’ survival in mind. This species is also affected by recreational activities in the creek. The Duskytail Darter is affected by water pollution from poor land use practices and coal mining. It is also hurt by agricultural, residential, and commercial development.

How would you describe the habitat of the endangered fish in Abrams Creek?
The Smoky Madtom is found in the tributaries of the Little Tennessee River in Abrams Creek and the Citico Creek. The area of the creek where they live has a gradient of 13.2 feet per mile, and it has many flat, palm-sized slab rocks, shallow pools, pea-sized gravel, scattered flat rocks, and deep pools with silty or sandy bottoms and large boulders. The Duskytail Darter lives near the edges of gently flowing shallow pools and slow running areas in the clear water of large creeks that are between 33 and 264 feet. They are found over pea gravel, rubble, slab rock, and boulder substrates.

What is one reason why these two fish species are endangered?
The Smoky Madtom was found in Abrams Creek before it was treated with a fish toxicant, and now it is only found in Citico Creek. Because there are so few Smoky Madtoms, they could become extinct by a single catastrophic event that could be caused by humans or nature. The Duskytail Darter was found in Abrams Creek before 1957 when it was treated with a fish toxicant that was supposed to improve the trout population, but it removed most native species like the Duskytail darter. In the Little River, this species is affected negatively by agricultural, residential, and commercial development.

Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development. University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.
Pat Summitt’s Sports Legacy
Tennessee Heritage at Junior 4-H Camp

Skill Level
Beginner

Learner Outcomes
The learner will be able to:
• Recognize that Coach Pat Summitt’s Definite Dozen reflects personal and social responsibility
• Apply rules, procedures, and safe practices during a basketball shooting game
• Calculate their team’s total by solving a word problem with multiplication

Educational Standard(s) Supported
Tennessee: Math, Grade 4
• Operations and Algebraic Thinking
Tennessee: Physical Education
• Grades 3-5 Personal and Social Responsibility
American Camp Association
• PD.3, PD.5, and PD.7

Success Indicator
Learners will be successful if they:
• Play the game safely and correctly
• Calculate their team’s score using math
• Reflect on the definite dozen’s principles

Time Needed
45 Minutes

Materials List
Picture of Pat Summitt, Team Name Cards
Laminated Student Sheets, Dry Erase Markers
4 Basketballs, 4 Hula Hoops, Spot Markers

Introduction to Content
Campers will learn about Coach Pat Summitt’s sports legacy and her definite dozen. They will practice the physical education skills of basketball shooting and. Campers will use math to calculate their team’s score.

Introduction to Methodology
Campers will discuss how Coach Patt Summitt’s Definite Dozen reflect personal and social responsibility. They will follow safe rules and procedures during a basketball shooting game, and they will use multiplication to calculate their team’s score.

Sources
https://physedgames.com/category/basketball/
http://www.mathblaster.com/coolmath/articles/basketball-and-math
http://www.mathworksheetscenter.com/mathtips/basketballmath.html
http://www.bigwest.org/fastbreak/files/3_math.pdf

Author
Hall, Alexis N. Program Assistant, Clyde Austin 4-H Center.
Terms and Concepts Introduction

Coach Pat Summitt was the head coach of the University of Tennessee women’s basketball team. She is recognized as a role model for many people, and her life shows many leadership skills that youth can follow. In this lesson, basketball shows just one practical and engaging use for math in the real world.

Setting the Stage and Opening Questions

Hold up the picture of Pat Summitt.
Ask campers, “Who is in this picture?” Pat Summitt
“What was her job?” She was the head coach of the University of Tennessee women’s basketball team.
“How many career games did she win?” 1,098

Say to campers, “Today you will do three things:
• Recognize that Coach Pat Summitt’s Definite Dozen reflects personal and social responsibility
• Apply rules, procedures, and safe practices during a basketball shooting game
• Calculate your team’s total by writing a word problem and solving it with multiplication”

Say, “Pat was an amazing basketball coach. She was successful for many different reasons. Today we will learn about her Definite Dozen, which are her 12 guidelines for success in sports and in life. The leaders will now divide you into your team by passing out name cards. Once you have a team name card, find the other members of your team and sit in a circle.”

Divide campers into four teams. Help them to find their teams and instruct them to sit in a circle together. Give each team 5 copies of the student page to share.

Experience

Ask campers the following questions:
“Can you think of an athlete who demonstrates at least one of the Definite Dozen?
“Which one of the Definite Dozen is the most difficult?”
“How could you use one of the Definite Dozen statements outside of an athletic activity?”

Say, “Now that we have learned about the Definite Dozen, we are going to read the basketball game instructions on the back of your paper. This is a basketball shooting game where you will compete against the other teams to win! Spots are placed all throughout the basketball court. Spots that are more difficult are worth more points. Red Spots are worth five points each. Green spots are worth three points each. Blue spots are worth two points each. Each team has a basketball. Two teams will be on one side of the court, and the other two teams will be on the other side of the court. Only one person from each team can shoot at once. When a player scores a basket from a spot, the player takes that spot back to the team’s collection hoop. The game will last for five minutes or until all of the spots are gone. Then, each team will write a word and solve a word problem to determine their total.”

Tips for Engagement

During this time, leaders should be actively engaged with the campers to help them complete the activity.

Remember, your enthusiasm for the activity makes a big difference in how the campers feel about it!

Leaders should visit each group to check on their progress during the lesson. If campers are stuck, ask them questions to help them figure out the answers.
Share

Say, “Before we play the game, let’s learn how to calculate a team’s total. Look at the word problem on your paper. Let’s solve this problem as a group.”

Leaders should guide campers to complete the math problem on their paper. If campers are stuck, ask them questions to help them figure out the answers.

Process

Say, “Now that you have learned about how to calculate a team’s total, let’s play the basketball shooting game!”

Leaders should guide the teams in playing the game to make sure that everyone follows the rules and treats others respectfully. Allow campers to play the game until most of the spots are gone.

Generalize

Say, “During the game, you showed personal and social responsibility by following the rules and treating others with respect. Pat would be proud of your performance! Now, we are going to determine your team score using word problems! Look back to your worksheet to see how to calculate your score.”

Help campers to determine their scores. If they answered correctly, congratulate the campers for doing the activity correctly. If they miscalculated, help campers to find the correct answer and then congratulate them for a job well done.

Apply

Say, “When you are finished solving your word problem, hold up your board so that a leader can check your answer.”

Check scores. If they answered correctly, congratulate the campers for doing the activity correctly. If they miscalculated, help campers to find the correct answer and then congratulate them for a job well done.

Ask, “What is one way that math is used in basketball?”

“Which of the Definite Dozen did you use during the basketball game?”

Life Skills from TIPPs for 4-H

4th Grade
- Follow instructions. (Heart)
- Show use of good judgment. (Health)

5th Grade
- Use good manners. (Heart)
- Describe one’s personal values (what one considers important) and societal expectations. (Health)

6th Grade
- Identify the parts, steps, and necessary sequence or order to achieve a goal. (Head Managing)
- Use appropriate social skills to interact in group settings. (Heart Relating)
  Use basic reading, writing, arithmetic, and mathematical skills. (Hands Working)
- Demonstrate control of self and one’s conduct in line with moral character (what is right and wrong). (Health Being)
Supplemental Information

Educational Standards Met

Tennessee: Math, Grades 4-6

4.OA.A.1: Interpret a multiplication equation as a comparison (e.g., interpret 35 = 5 x 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5). Represent verbal statements of multiplicative comparisons as multiplication equations.

5.NBT.B.5: Fluently multiply multi-digit whole numbers (up to three-digit by four-digit factors) using appropriate strategies and algorithms.


Tennessee: Physical Education, Grades 4-6

PSR.1.4a Exhibits responsible behavior in group settings.

PSR.4.4 Adheres to specific rules to promote fair play in small-sided games.

MS.10.4 Throws overhand to a partner or target with accuracy.

PSR.1.5 Exhibits respect for self and others with appropriate behavior while engaging in physical activity.

PSR.4.5 Critiques the rules of various activities.

MS.10.5 Throws overhand using a mature pattern.

PSR.1.6 Exhibits personal responsibility by using appropriate etiquette, respect for facilities and equipment and safe behaviors.

PSR.2.6 Identifies the rules and etiquette in physical activities.

MS.8.6 Shoots on goal with appropriate force and accuracy.

American Camping Association: Program Development

PD.3 Program Progression: Camp must allow for campers to experience progression, challenge, and success.

PD.5 Social Development: Camp programs should provide specific activities that are designed to help campers develop socially.

Clyde Austin 4-H Center

Campers will learn new skills and enhance present talents and interests through:

- Encouragement to try new activities
- The opportunity to receive instruction in recreation which will enable them to move to a higher level of competency in that skill

Campers will develop an appreciation for their own skills and those of others through:

- Understanding the importance of all learning

Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development. University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.
Sequoyah’s Talking Leaves  
Tennessee Heritage at Junior 4-H Camp

Skill Level  
Beginner

Learner Outcomes  
*The learner will be able to:*  
- Summarize the story of Sequoyah by telling it aloud  
- Write a Cherokee word  
- Recognize the contributions of Sequoyah

Educational Standard(s) Supported  
Tennessee: Social Studies, Grade 4  
- 4.54  
Tennessee: ELA, Grade 6  
- Speaking and Listening Standards, Comprehension and Collaboration  
American Camp Association  
- PD.3, PD.5, and PD.7

Success Indicator  
*Learners will be successful if they:*  
- Retell the story of Sequoyah  
- Write the Cherokee word for water  
- Explain Sequoyah’s contributions

Time Needed  
45 Minutes

Materials List  
- 4 Laminated Trees  
- 4 Sets of Leaves (80 Leaves Total)  
- Velcro Dots (80)  
- Student Sheets  
- Pencils

Introduction to Content  
Campers will learn about Sequoyah’s invention of the Cherokee syllabary, which gave the Cherokee people a way to communicate through writing. The syllabary is made of symbols that represent syllables in the Cherokee language.

Introduction to Methodology  
Campers will listen to a narrative about Sequoyah and then retell the story orally using the talking leaves as a guide. Campers will learn how the syllabary works by writing the Cherokee word for water and practicing writing their own names or other words using the syllabary.

Sources  
http://www.history.org/history/teaching/eenewsletter/volume9/sept10/teachstrategy.cfm  
http://www.native-languages.org/cherokee_alphabet.htm  
http://etc.usf.edu/clipart/44100/44125/44125_tulip_1.htm

Author  
Hall, Alexis N. Program Assistant, Clyde Austin 4-H Center.
Terms and Concepts Introduction

Sequoyah invented the Cherokee syllabary, which gave the Cherokee people a way to communicate through writing. The syllabary is made of symbols that represent syllables in the Cherokee language.

Setting the Stage and Opening Questions

Ask campers “Why do we use the letters of the alphabet?” Answers will vary but could include, “We use letters to write words.” “We use letters to sound out words.”

“If we did not have the letters of the alphabet to write down our words, how would we share stories and histories?”
“We would say stories out loud and listen to them.”

“Before the Cherokee people had the syllabary, they used storytelling to share their stories and histories. Today you will do three things:

1. Summarize the story of Sequoyah by telling it aloud
2. Write the Cherokee word for water
3. Recognize the contributions of Sequoyah

“In English, each letter of the alphabet represents a different sound. In Cherokee, each symbol of the syllabary represents a different syllable. Cherokee people used the syllabary to write share information by writing. Before the syllabary existed, they could not communicate by writing. Instead, they shared information and stories by listening and speaking.”

Experience

Say, “We are going to learn about the man who created the syllabary. The leaders will now pass out leaves with words written on it. These leaves are shaped like the yellow poplar tree, which is the state tree of Sequoyah's home state, Tennessee. The number on the back of your leaf is your group number. Find the other people in your group and sit with them. Once you are in a group, leaders will bring you a tree.

Help campers find their groups.

“I am now going to read you the story of Sequoyah. When I read one of the words on your leaf, the person who has that leaf should place it on the tree. Place your leaves in sequential order on the tree, starting at the top and working down toward the bottom. Listen very carefully as I read the story so that you can remember it.”

Read the narrative found in the supplemental information.
Share

Say, “Now, we will use the talking leaves to retell the story. If you would like to share a sentence from one of the talking leaves to tell the story, the raise your hand. I will call on people to come up to the microphone to share the story.”

Call on campers to retell the story. If they get stuck, help them out by asking questions. Encourage a variety of campers to participate in retelling the story.

Process

Ask, “What was difficult about telling the story using only the talking leaves?”

Answers will vary, but could include, “It was hard to remember all of the details.” “You were talking too fast.” “I couldn’t hear you.” “I only heard the story once.”

“Before the Cherokee had the syllabary, they told all their stories orally, and that is how they remembered their history. When you retold the story in your group, it probably changed a little, which is what happens anytime people tell stories without written words. Using the syllabary, Cherokee people could write down their stories and histories. This preserved their stories and history and kept the Cherokee language alive.”

Generalize

“The leaders are now going to give you a copy of the modern Cherokee syllabary. To write the Cherokee word for water (ama) in the English alphabet, look for the vowel syllable “a” and the consonant syllable “ma.” Once you find the correct symbols, write them on your paper.

Pass out the worksheets and pencils. Help campers follow the directions on the paper.

Apply

“When you finish writing the Cherokee word for water, then try writing your own names by finding the symbols that represent the sounds in your name.”

Help campers find the symbols that sound like the sounds in their names, or ones that are similar. If they finish this quickly and time remains in the sessions, encourage them to do the same thing with other ideas.
Supplemental Information

Educational Standards Met

Tennessee: Social Studies, Grade 4

4.54 Describe and explain the contributions of Sequoyah. (C, H, TN)

Tennessee: English and Language Arts, Grades 4-6

4.W.RBPK.8 Recall relevant information from experiences or gather relevant information from print and digital sources; take notes, categorize information, and provide a list of sources.

4.SL.PKI.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

5.W.RBPK.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work and provide a list of sources.

5.SL.PKI.4 Report on a topic or text, or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas.

6.W.RBPK.8 Integrate relevant and credible information from print and digital sources; quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.

6.SL.PKI.4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

American Camping Association: Program Development

PD.3 Program Progression: Camp must allow for campers to experience progression, challenge, and success.

PD.5 Social Development: Camp programs should provide specific activities that are designed to help campers develop socially.

Clyde Austin 4-H Center

Campers will learn new skills and enhance present talents and interests through:

- Encouragement to try new activities

Campers will develop an appreciation for their own skills and those of others through:

- Understanding the importance of all learning
- Learning to value individual diversity
Sequoyah was born in the Cherokee village of Tuskegee on the Tennessee River. His mother was Cherokee, and his father was probably not. He signed his work in English because there was no written form of the Cherokee language. It was popular for people to communicate in English by writing symbols on paper. The Cherokee called this paper “talking leaves” because the paper seemed to talk to the person who was reading it. Cherokee people only communicated by talking, so they needed to memorize everything they knew.

Sequoyah knew the power of reading and writing, so he spent 12 years figuring out the best system to use. He developed 86 different symbols that stood for the 86 syllables in the Cherokee language. Many people made fun of Sequoyah while he worked on his invention. People said he was a witch, and someone set his cabin on fire to destroy his work. Sequoyah did not give up.

To prove that his system worked, Sequoyah took his daughter to a meeting of village elders. He asked his daughter, Ayoka, to wait outside and then asked the elders to tell him something. He wrote down what the elders told him and left the room. When Ayoka entered, she told the elders what they had said to Sequoyah by reading the “leaves.” Now they believed that his syllabary worked. Soon, many Cherokee people were learning how to write their language. The system was so simple that people could learn it very quickly, and it soon became widespread. The Cherokee even started printing a newspaper called the Cherokee Phoenix, which was written in Cherokee and English.

By the time the United States forced the Cherokee to move off their native lands after the Indian Removal Act, Sequoyah had already moved west to Arkansas and then to Oklahoma. Sequoyah is honored by many for his great gift to the Cherokee. A statue of Sequoyah stands in the US Capitol building in Washington D.C., and the mighty Sequoia tree was named after him. Sequoyah’s invention helped preserve Cherokee language and culture, and it is still used today.
Tennessee State Songs
Tennessee Heritage at Junior 4-H Camp

Skill Level
Beginner

Learner Outcomes
Campers will be able to:
• Recall the significance of Tennessee in popular music
• Describe characteristics of Tennessee culture within a musical and historical context
• Write a new Tennessee state song

Educational Standard(s) Supported
Tennessee: Social Studies, Grade 5
  • 5.64
Tennessee: Music, Grade 4
  • 8.2.3, 9.1.2
Tennessee: Music, Grade 5
  • 8.2.2, 9.1.1
Tennessee: Music, Grades 6-8
  • 8.2.2, 9.1.2
American Camp Association
  • PD.3, PD.5, and PD.7

Success Indicator
Campers will be successful if they:
• Reflect upon the state songs
• Describe Tennessee based on the songs
• Draft a new state song

Time Needed
45 Minutes

Materials List
PowerPoint, Student Sheets, and Pencils

Introduction to Content
Campers will learn about music, history, and culture of Tennessee by responding to the following state songs: Rocky Top, My Homeland Tennessee, Tennessee Waltz, and A Tennessee Bicentennial Rap: 1796-1996.

Introduction to Methodology
Campers will listen to several Tennessee state songs, and they will write about how the songs describe Tennessee and the feelings they evoke. They will brainstorm ideas for a new state song and work together to write one.

Sources
http://popmusic.mtsu.edu/homeland/homelandlessonkit.pdf
https://www.tn.gov/main/article/state-songs
http://emojipedia.org/people/

Author
Hall, Alexis N. Program Assistant, Clyde Austin 4-H Center.
Terms and Concepts Introduction

Tennessee has nine state songs that share the history and culture of Tennessee through music. This lesson focuses on four of them and encourages campers to brainstorm about important aspects of Tennessee heritage.

Setting the Stage and Opening Questions

Play the video on slide 1 of the PowerPoint.

Go to slide 2 of the PowerPoint and read the learning objectives to students.

Go to slide 3 of the PowerPoint.

Say, “We just watched a video from the University of Tennessee, Knoxville that featured people from all over the state of Tennessee singing, whistling, or humming along to Rocky Top. Where have you heard the song Rocky Top before?”

Answers will vary.

“Rocky Top is one of Tennessee’s nine state songs. Today we will listen to a few of them to learn about Tennessee culture and history. Our leaders will now pass out lyrics to the songs and a pencil for you to write notes on them.”

Pass out packets and pencils.

Experience

Say, “We are now going to listen and sing along to three of our state songs. While we are listening, answer the questions located at the bottom of the lyrics.”

Play Rocky Top on Slide 3.

Play My Homeland, Tennessee on Slide 4.

Play Tennessee Waltz on Slide 5.

While the songs are playing, sing along and encourage campers to do the same.

Tips for Engagement

During this time, leaders should be actively engaged with the campers to help them complete the activity.

Remember, your enthusiasm for the activity makes a big difference in how the campers feel about it!

Leaders should visit each group to check on their progress during the lesson. If campers are stuck, ask them questions to help them figure out the answers.
Share

Say, “Now that we have listened to three of our state songs, take a few minutes to finish answering the questions on your lyric pages.”

Walk around the room and make sure that the campers are answering the questions.

This portion of the lesson should take five minutes.

Process

Say, “This is the last of the state songs we will listen to today. It was written by a poet from Signal Mountain, Tennessee to celebrate the 200 years that Tennessee has been a state. It was written to provide a fun and easy way for people to learn about our state’s history.”


Say, “If you could write a new song about Tennessee, what would you include? Brainstorm ideas of things you could write about. Write five ideas for your new song on your paper.”

Walk around the room and help campers think of ideas. You can suggest things like history facts, information about their hometown, landmarks, or trivia about the state.

This portion of the lesson should take five minutes.

Generalize

Say, “Now, find three other people near you. Once you have a group of four, share your ideas for a new state song. After you have talked about your ideas, work together to create a new state song.”

Help campers form groups of four. Then, check in with each group and ask about their ideas for a new state song. Encourage them to think creatively about the things they want to share about Tennessee, the style of music they like, and the feelings they want to share with their song.

This portion of the lesson should take ten minutes.

Invite campers to share their new state songs with the entire group.

Apply

When five minutes remain, go to slide 12.

Say, “Now, talk in your group about three things:
What do you like about your song?
What words do you use to describe Tennessee?
What emoji would you use to describe the feeling of your song?”

Walk around the room and help campers to stay on task by reminding them of the questions.
Supplemental Information

Educational Standards Met

Tennessee: Social Studies, Grade 5

5.64 Refer to details and examples about the significance of Tennessee in popular music, including Sun Studios, Stax Records, Elvis Presley, B.B. King, and Memphis, Tennessee. (C, TN)

Tennessee: Music, Grade 4

8.2.3 Demonstrate the relationship of music to literature, mathematics, science, and/or social studies.

9.1.2 Discuss characteristics of selected cultures within a musical and/or historical context using teacher-given parameters.

Tennessee: Music, Grade 5

8.2.2 Investigate the relationship of music to literature, mathematics, science (e.g., acoustical properties of instrumental music), and/or social studies in teacher-given classroom activities.

9.1.1 Discuss characteristics of selected cultures within a musical and/or historical context using teacher-given parameters.

Tennessee: Music, Grades 6-8

8.2.2 Describe the correlation between music and another academic discipline.

9.1.3 Describe the characteristics of a selected music genre, time period, or culture.

American Camping Association: Program Development

PD.3 Program Progression: Camp must allow for campers to experience progression, challenge, and success.

PD.5 Social Development: Camp programs should provide specific activities that are designed to help campers develop socially.

PD.7 Environmental Activities: Camp must provide program activities that help develop comfort, appreciation, awareness, and responsibility toward the natural environment.

Clyde Austin 4-H Center

Campers will learn to cooperate with and be tolerant of others by:

• Participating as a member of the camp family

Campers will learn new skills and enhance present talents and interests through:

• Encouragement to try new activities

Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development. University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.