

Tai Chi for Children: Developing a Healthy Mind and Body

Instructional Plan

OVERVIEW OF LESSON:

This unit is designed to introduce elementary school children to the practice of Tai Chi as a contribution of Ancient Chinese culture and as a means of improving physical and emotional awareness and stability. This unit is intended to supplement the 2nd grade History Standard of Learning 2.1 as well as meet a variety of other 2nd and 3rd grade standards. Students will learn several Tai Chi poses during lessons on an interactive Wii Fit board, keep a journal of their observations before/during/after each interactive lesson, and chart their progress upon completion of the lessons. Students will also learn and practice other Tai Chi poses as a group, discover the health benefits of Tai Chi, and learn about the history of Tai Chi and its origins in Ancient China.

SUBJECT MATTER:

History
Science
Math
English
Physical Education
Music
Computer Technology

GRADE LEVEL(S):

2-3

Tai Chi for Children: Developing a Healthy Mind and Body

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TIME ALLOTMENT:

Time estimated to complete this lesson is seven 45-minute class periods (or equivalent variation).

LEARNING OBJECTIVES:

- Students will be able to demonstrate several taiji (tai chi) poses.
 - Students will be able to describe the benefits of taiji.
 - Students will be able to compare numbers up to four digits.
 - Students will be able to write about their experiences and feelings.
 - Students will be able to describe the history of taiji, including its importance as a Chinese invention.
 - Students will be able to distinguish changes in music.
 - Students will be able to analyze data to identify trends.
 - Students will be able to describe how motion and movement affect and/or reflect emotions.
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LEARNING STANDARDS:

Content

Standards listed below are not given in their entirety. Rather, the parts of the standards covered by this instruction are included. For complete text of the Virginia Standards of Learning, go to: http://www.doe.virginia.gov/testing/sol/standards_docs/index.shtml

History / Social Science

2.1 The student will explain how the contributions of ancient China and Egypt have influenced the present world in terms of architecture, inventions, the calendar, and written language.

Science

2.1 The student will conduct investigations in which

- a) observation is differentiated from personal interpretation, and conclusions are drawn based on observations;
- c) two or more attributes are used to classify items;
- d) conditions that influence a change are defined;
- f) pictures and bar graphs are constructed using numbered axes;

English

2.11 The student will write stories, letters, and simple explanations.

- a) Generate ideas before writing.

- b) Organize writing to include a beginning, middle, and end.
- 3.10 The student will write stories, letters, simple explanations, and short reports across all content areas.
 - a) Use a variety of planning strategies.
 - b) Organize information according to the type of writing.
 - c) Identify the intended audience.
 - d) Revise writing for specific vocabulary and information.
 - e) Use available technology.

Math

- 2.1 The student will
 - c) compare two whole numbers between 0 and 999, using symbols (>, <, or =) and words (greater than, less than, or equal to).
- 3.1 The student will
 - c) compare two whole numbers between 0 and 9,999, using symbols (>, <, or =) and words (greater than, less than, or equal to).

Physical Education

- 2.1 The student will continue to demonstrate correct critical elements (small, isolated parts of the whole skill or movement) of locomotor, non-locomotor, and manipulative skills.
 - b) Demonstrate educational gymnastic sequences, including balance, roll, transfer of weight, and flight.
- 2.3 The student will identify and participate in physical activities that promote aerobic capacity, muscular strength, endurance, and flexibility.
 - a) Identify that physical fitness is the ability to work and play with energy to spare.
 - b) Name and locate the large muscle groups.
 - c) Demonstrate activities that utilize specific muscle groups.

Health

- 2.1 The student will identify the major body systems and explain their connection to personal health.
- 2.2 The student will explain that personal health decisions and health habits influence health and wellness throughout life.
- 2.3 The student will describe the influences and factors that impact health and wellness.
- 3.1 The student will explain that health habits impact personal growth and development.
- 3.2 The student will use decision-making skills to promote health and personal wellness.
- 3.5 The student will explain that customs and traditions may impact community health decisions.

Music

2.7 The student will recognize sudden and gradual changes in expressive qualities of music.

1. Demonstrate changes in dynamics and tempo vocally, instrumentally, and with movement.
2. Use music terminology to describe changes.

Technology

See complete Technology standards at <http://www.iste.org/standards/nets-for-students/nets-student-standards-2007.aspx>

- C/T K-2.1 The student will demonstrate knowledge of the nature and operation of technology systems.
 - Identify the computer as a machine that helps people at school, work, and play.
 - Use technology to demonstrate the ability to perform a variety of tasks; among them turning on and off a computer, starting and closing programs, saving work, creating folders, using pull-down menus, closing windows, dragging objects, and responding to commands.
- C/T K-2.2 The student will demonstrate proficiency in the use of technology.
 - Demonstrate the use of mouse, keyboard, printer, multimedia devices, and earphones.
 - Use multimedia resources such as interactive books and software with graphical interfaces.
- C/T 3-5.5 The student will demonstrate knowledge of technologies that support collaboration, personal pursuits, and productivity.
 - Work collaboratively when using technology.
 - Practice and communicate respect for people, equipment, and resources.
 - Understand how technology expands opportunities for learning.
- C/T 3-5.6 The student will use technology to locate, evaluate, and collect information from a variety of sources.
 - Collect information from a variety of sources.
 - Evaluate the accuracy of electronic information sources.
 - Enter data into databases and spreadsheets.

CRITICAL AND CREATIVE THINKING OBJECTIVES:

A complete listing and explanation of critical and creative thinking objectives can be found at www.ideas.soe.vt.edu.

Brainstorming	Students will generate as many solutions or ideas related to a topic as possible within a given amount of time.
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Conceptualization	Students will verbalize or represent ideas using 2D and 3D representations, movement or other forms relevant to the context.
Exploring	Students will explore a challenge using a variety of raw materials, stimuli, and experiences.
Observing	Students will observe things related to the challenge closely to identify details, procedures, and methods
Elaborating	Students will develop ideas and information that expands on what is explicitly given.
Questioning	Students will identify missing or unclear information and ask questions to seek clarity.
Relating	Students will identify associations between objects or ideas.
Interpreting	Students will state the meaning of a situation, process, product, or information after considering all resources.
Summarizing	Students will condense multiple ideas into a cohesive and comprehensive summary and restate it using personal connections and interpretations.
Composing	Students will use written, oral, and symbolic language to communicate a summary of thoughts, ideas, and solutions.
Assessing knowledge	Students will identify prior knowledge and describe the degree of familiarity with that knowledge.
Understanding ability	Students will identify personal abilities that are helpful to meeting goals.
Focusing	Students will identify the level and type of attention they are devoting to a task, and describe any adjustments needed.
Cognitive Restructuring	Students will verbalize positive thoughts about their performance and abilities
Evaluating the product	Students will make revisions to the product as needed to align with their goal.
Avoiding impulsivity	Students will exercise control over thoughts and reactions by pausing to think, ask questions, and talk through ideas.
Remaining Open-Minded	Students will identify how ideas from multiple experiences (to include senses, fantasy, aesthetics, feelings, and actions of others) influenced their ideas.
Demonstrating Autonomy	Students will initiate activity and exercise self-direction and self-discipline.
Rejecting stereotypes and prejudice	Students will identify preexisting ideas and opinions regarding a challenge and how they might affect decisions and progress toward goals.
Persisting	Students will continue to work until goals are met.
Maintaining intrinsic motivation	Students will identify how the task or problem provides personal satisfaction.

PREREQUISITE KNOWLEDGE:

- Teachers should be aware that *taiji* and *tai chi* are interchangeable terms for the same concept. *Taiji* is the spelling that is used in modern day while *tai chi* is an older version. For the purposes of documentation in this unit, *tai chi* is used whenever discussion references the book *Tai Chi for Kids: Move With the Animals* and *taiji* is used whenever discussion references the Interactive Taiji program.
- Before beginning these lessons, students should have established knowledge about ancient China as outlined in the 2nd Grade History Standards of Learning. This unit is designed to be included as part of a larger curriculum on the study of ancient cultures. Important concepts include knowledge that many inventions of modern day originated from ancient Chinese culture, Chinese language is based on symbols, the Great Wall is located in China, and that Chinese foods are chosen for their health benefits.
- Teachers can choose to execute the Interactive Taiji lessons with the entire class in a large space such as a gymnasium or as a learning station for individual practice inside the classroom. The scope and pace of the lessons as well as the materials needed for the lessons differs depending upon the method chosen. Teachers should read this unit thoroughly and make an informed decision about which method will work best for their needs before implementation.

MEDIA/TECHNOLOGY COMPONENTS:

- Computer with Interactive Taiji game (developed by Virginia Tech DISIS) (one for classroom use; if whole-class, four)
- Wii Fit platform (one for classroom use; if whole-class, four)
- Bluetooth adapter (for use in classroom)
- Projector (for whole class participation in gymnasium or other large area)
- Large blank wall or screen for video projection (for whole class participation)
- Computer Speakers (for whole class participation)
- Headphones (one for classroom use; if whole-class, four)

MATERIALS:

Book: *Tai Chi for Kids: Move With the Animals*, by Stuart Alve Olson, ISBN# 978-187918165-6
Tai Chi Journals:

- 1 sheet of construction paper per student
- 8 sheets of lined paper per student (cut to size to fit inside folded construction paper)
- 1 copy of Taiji Journal instruction sheet
- Scissors and glue

PREPARATION FOR TEACHERS:

- Teachers should read Stuart Alve Olson's *Tai Chi for Kids: Move With the Animals* and become comfortable with each of the eight movements in the book.
 - It is recommended, but not mandatory, that teachers practice the Interactive Taiji game before introducing it to students so that class discussions can be more meaningful. For example, it is important that teachers understand how the musical component of the game changes as students improve steadiness on the Wii Fit board. Teachers should also be familiar with the comments made by the instructor in the game and the types of poses students will practice.
 - Teachers may choose to execute the Interactive Taiji portion of the lessons in a gymnasium, cafeteria, or other large room, in which case the projector and other materials explained in the Media/Technology Components section above will be needed. If using the game in a classroom, introduce the game in small groups and then provide each student a 10-minute session with the game on a predetermined schedule over several weeks.
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INSTRUCTIONAL PLAN:

This unit is designed to supplement Virginia History Standard of Learning 2.1 but does not represent comprehensive coverage of all concepts required of the standard. The scope and pacing of the lessons can be modified to suit the individual teacher's schedule and constraints.

Lesson One:

Begin the lesson by reviewing what students have learned about inventions from ancient China. Concepts may include the invention of paper, silk, tea, the compass, fireworks, and umbrellas. Lead the discussion to explain that another "invention" that came from the Chinese is the practice of taiji, a Chinese martial art that is practiced worldwide today. Read pages 10-13 from *Tai Chi for Kids: Move with the Animals* aloud to give students background knowledge about the practice. When reading pages 12 and 13, be sure to point out the symbols along the left side of each page and explain to students that these symbols represent the words *tai chi* in the written Chinese language. After reading these pages, use the K-W-L graphic organizer (attached) to set students' knowledge about taiji. Guide students to discuss the history of taiji, the relationship between taiji movements and animal movements, the health benefits of taiji, and the difference between Chinese language and their language. See the table below for a suggestion of what types of information will be included in the "K" section of the chart:

What I Know

~Tai chi is a type of exercise invented in China

- ~Tai chi is based on 8 basic animal poses
- ~Practicing tai chi can make you healthier and happier
- ~Chinese language is made of symbols or characters

Lesson Two:

Review the concepts discussed during the prior lesson and explain to students that they are going to learn the eight animal poses mentioned in yesterday's reading. They will also create personal journals, which they will use to record their experiences while learning and practicing the tai chi poses. This is a good time to fill in the "W" section of the K-W-L chart with what students **want** to know. Begin by reading pages 14-15 of *Tai Chi for Kids: Move With the Animals*. Emphasize that the movements they will learn should be slow and controlled. Ask students to demonstrate the difference between moving slow and controlled, like water, and moving quickly and rigidly as they might do on a playground. Next, read pages 16-17 and slowly walk students through the individual movements described for the "Holding the Bird's Tail" pose. Practice the move several times. Repeat for each of the other poses in the book.

Once each of the poses has been introduced, have students return to their seats. Distribute materials for students to create tai chi journals (attached) and allow students to complete the project. Conclude the lesson by asking students to complete their first journal entry by responding to the following statement:

I liked the (animal name) pose best because_____.

Lesson Three:

Begin the lesson by asking the students to recall the animal poses practiced in the prior lesson. Divide the students into eight groups and assign each group one of the poses to practice. After a few minutes, allow each group to demonstrate the pose for the class. Brainstorm as a class to create a list of reasons for practicing these poses. Guide students to include focus, relaxation, awareness of breath, positive imagery, and positive self talk in the list (as these are the goals of the Interactive Taiji game you will be introducing shortly). These reasons can also be derived from pages 10-13 of *Tai Chi for Kids: Move With the Animals*. Create this list on chart paper as a class. Explain to students that they will use the journals they created yesterday to recognize and record the changes in their feelings while they learn to practice Taiji daily. Ask students to open their journals and respond to the following statement.

Learning Tai Chi will help me _____.

Once journal entries are complete, introduce the Interactive Taiji game. (See "Teacher Preparation" notes above to determine preferred method of Interactive Taiji practice.) Explain to the students that they will be learning to perform the same exercises that many children in China perform every morning and that the goals of these exercises are focus, relaxation, awareness of breath, positive imagery (happy thoughts), or positive self talk (good words).

Demonstrate the interactive Taiji game by first showing how to log in to the game using a student ID (for example, last name or student lunch number). Once logged in, have students follow the on-screen instructions to practice the Taiji movements. Encourage them to pay close attention to not only the instructor on the screen but also their statistics along the right side of the screen and the sounds they hear in the background.

Once all students have been introduced to the Interactive Taiji game, have them return to their journals to complete the following entry:

The (animal name) pose was like the (Interactive Taiji) pose because...

Discuss students' journal entries after everyone is finished to determine what new information students learned. Add these new items to the "What I **Learned**" section of students' K-W-L charts and discuss whether or not anyone has answered questions from the "What I **Want** to Know" section of their chart.

Lesson Four:

This lesson involves allowing the students each the opportunity to participate in a lesson on the Wii Fit board using the Interactive Taiji software. If done in a whole-class setting as described above, this lesson will be completed in one session assuming a class size of 24 students and a lesson time of one hour. If done on an individual basis, this lesson will be completed over the course of a week.

Remind students that the goal of tai chi is to improve health and happiness. Ask students to recall the goals of the exercise and guide them to include such answers as improving focus, relaxation, awareness of breath, positive imagery (happy thoughts), and positive self-talk (good words). Ask students to open their journals and complete the following entry before beginning their first session with the Interactive Taiji game:

Today I feel _____ because _____.

Assist the students in logging on to the Interactive Taiji game using their personal ID and allow time to complete the first lesson. Once students have completed session one, have them complete the following journal entry:

While I practiced Taiji I felt _____ because _____.

The music I heard sounded like _____.

Now I feel _____.

Lesson Five:

Once each student has completed the first session on the Wii Fit board, lead a group discussion about what each person experienced during his or her individual practice session. Discuss the poses, the music, the instructor's comments, and the students' thoughts. Record on chart paper and ask students to follow up by adding information to their K-W-L chart as appropriate.

Continue exercising as a group or individually on the Interactive Taiji game as described earlier. Each student should be given at least five turns on the game; optimally, each student will be afforded time to complete each of the ten lessons included in the game. Students should complete a journal entry for each session that describes how they feel **before** practicing taiji (to be completed before the lesson), how they feel **during** the exercise, and how they feel **after** the exercise (to be completed after the lesson). This lesson can be implemented in one of several time frames based on teacher preference as described in the Teacher Preparation section.

Lesson Six:

Once students have completed at least five lessons on the Interactive Taiji game, print the results for each student from the software. (**Note:** Teachers may need to simplify this data to remove complex information such as steadiness and steadiness percent. Recommended values are weight, level, level duration, and total score.) Give each student his or her results. Use the sample results (attached) or use your own results, if you completed the lessons also, to share with students as a group. Explain how to read the results and compare the sample data as a group. As a homework activity, assign students the task of evaluating their own data using similar questions.

Lesson Seven:

Conclude the unit by asking students to revisit their tai chi journals and read about their experiences while learning to practice the poses. Ask students to share what they learned about tai chi, what their favorite pose or lesson was, and how practicing tai chi changed their physical and/or emotional qualities. Finalize the K-W-L charts by asking students to review what they learned and make sure they add it to their charts.

As a final journal entry, have students respond to the following:

I liked practicing taiji poses because _____.

If I keep practicing every day, I will _____.

ASSESSMENTS:

- Students will be assessed on their K-W-L chart completion.
- Students will be assessed on the completion and thoroughness of their journal entries (i.e., did they include B/D/A for each entry?).

- Students will receive daily feedback when working on the WiiFit board (i.e., steadiness, total score, level completion).
 - Students will be assessed on their ability to compare three- and four-digit numbers.
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COMMUNITY EVENTS AND CONNECTIONS:

- Invite an instructor from a local wellness center to come to the classroom to discuss the history and philosophy of taiji and to demonstrate taiji with the students.
 - Sponsor a wellness night at the school where taiji is highlighted as a tool for improving physical and emotional well-being.
 - Invite a Chinese-American from the community to come to class to discuss his or her family's traditions.
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ADDITIONAL RESOURCES

To further incorporate the taiji unit with Ancient China SOLs, consider the following:

Activities:

1. Read "Lon Po Po" by Ed Young and discuss the differences between this Chinese version of Little Red Riding Hood and the American version.
 - a. Visit <http://www.quia.com/ws/126913.html> for a Lon Po Po vocabulary word search
 - b. Visit <http://www.quia.com/quiz/130622.html> for a Lon Po Po comprehension quiz online
2. Read "Magic Tree House #14: Day of the Dragon King"
 - a. Discuss silk weaving as an ancient Chinese invention
 - b. Compare the "Legend of the Silk Weaver and the Cowherd" to the "Legend of Three Peaks Chang" from *Tai Chi for Kids: Move With the Animals*.
 - c. Study ancient Chinese language and symbols (see <http://www.wbra.org/html/edserv/ntti/2007lessons/MadeInChina.pdf> for an interdisciplinary lesson on Chinese calligraphy)
3. Read "The Seven Chinese Brothers" by Margaret Mahy
4. Read "*Ms. Frizzle's Adventures: Imperial China*"

Web Sites:

- <http://countries.mrdonn.org/china.html>
 - http://www.ncuscr.org/files/Hutchinson_Final.pdf (multidisciplinary unit on Ancient China)
 - <http://www.wbra.org/html/edserv/ntti/2007lessons/MadeInChina.pdf> (multidisciplinary unit on Chinese calligraphy)
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ABOUT THE INTEGRATED DESIGN + EDUCATION + ARTS STUDIO:

The Integrated Design + Education + Arts Studio (IDEAS) is part of the Institute for Creativity, Arts, and Technology (ICAT) at Virginia Tech.

By merging the forces of art and technology into applicable prekindergarten through secondary school (PK-12) programs that strengthen student achievement, Virginia Tech is on the leading

edge of a new paradigm in education. ICAT will reach beyond current educational models to fuse arts and technology with content. Our purpose is to strengthen critical and creative thinking skills that prepare students for future careers. ICAT will both generate research and produce learning modules and environments that address real needs identified by educators.

For more information, please see our website at www.ideas.soe.vt.edu.

WE VALUE YOUR FEEDBACK:

Please tell us about how you used the curriculum materials and/or arts project in your classroom. We welcome feedback, suggestions for improvement, and success stories. Find out more at www.ideas.soe.vt.edu.

Get the kit. The IDEAS team has available for loan a number of instructional kits for our various projects. Each kit includes a FlipCam, a small camera you can use to give us feedback. Because we can't be in the classroom with you, we turn to technology to help provide us a glimpse of the experience you and your students have with the program. That's where the FlipCam comes in.

All we ask is that you document your students engaged with the program and related activities. Feel free to make the filming an integrated part of your experience. Give the camera to the students, do the filming yourself, pass it around to multiple students - however you want to document. Once you are finished with the kit, simply return the camera with the other materials. The Institutional Review Board (IRB) of Virginia Tech requires parent, student, and school assent/consent for participation in this data collection. We provide you with all the necessary permission forms and information for your supervisors.



TAI CHI K-W-L:

What I **Know**

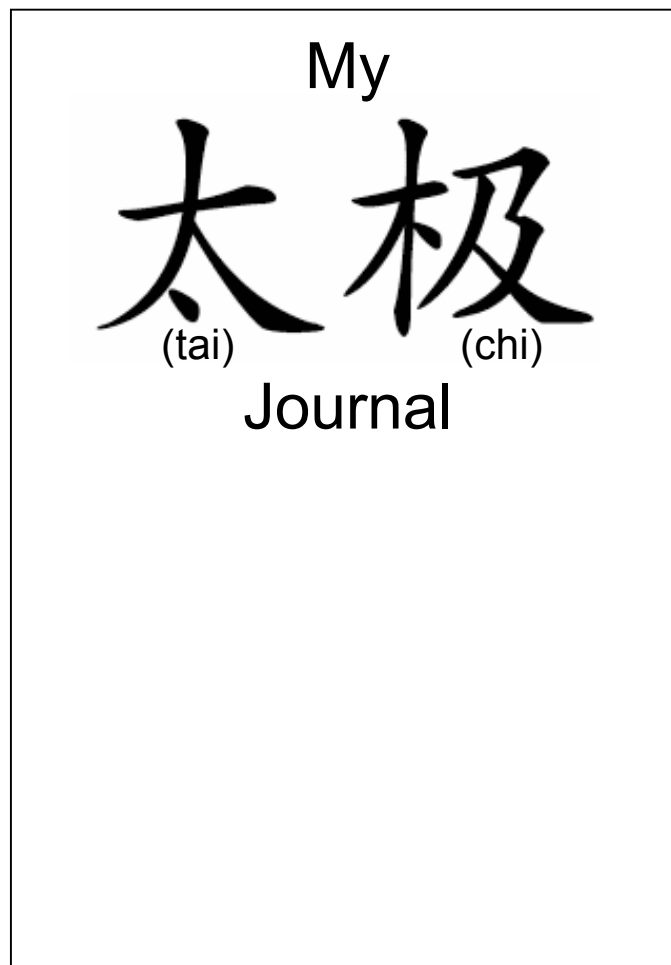
What I **Want** to Know

What I **Learned**



TAI CHI JOURNALS:

1. Use your crayons to draw a picture of the animal pose you liked best in the box below.
2. Cut out the box.
3. Fold your construction paper in half and place the lined paper inside. Ask your teacher for help stapling the pages together.
4. Glue your new picture to the front of your journal.



SAMPLE DATA:

Name:

Student 12345

	<u>Session 1</u>	<u>Session 2</u>	<u>Session 3</u>	<u>Session 4</u>	<u>Session 5</u>
Weight	72	73	72	72	71
Level	1-1	1-2	1-3	1-4	1-5
Level Duration	272	276	284	263	291
Total Score	7718	7801	7785	7736	7832

In which session did the student get the highest score? The lowest score?

Is the duration in Session 2 higher or lower than Session 5?

Did the student have to repeat any levels?

