Dances from Around the World

Exploring Culture and History through Robotics & Programming

A Culminating Project Unit for Pre-K through 2nd Grade

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1 This curriculum was developed by Amanda Sullivan with the help of Safoura Seddinghin, under the direction of Prof. Marina U Bers.
Dances from Around the World Overview

Introduction to the Curriculum

*Dances from Around the World* is a culminating project for students who have completed the *How Things Move* and *Use Your Senses!* curriculums (or their equivalents). Over the course of several weeks, students will work alone or in groups to build and program a robot to demonstrate their understandings and ideas related to the robotics and programming concepts they have mastered as well as a cultural dance of their choice. During the course of this final project, students put to use all the concepts learned during previous lessons but transfer them to a new context. When projects are complete, there can be a showcase of student work for parents, siblings, and schoolmates.

The creation of the final project can be broken up in many different kinds of ways. This curriculum is structured with several lessons that begin with learning about dances, selecting and researching a dance, designing and building the robot, programming the robot, testing the robot, and finally, the showcase of student work. This is an interdisciplinary curriculum that integrates studies of history, math, language arts, science, and social studies in a robotics and programming context.
Curriculum Outline

Time: ~10 hours (spread out over several days or weeks, at the teacher's discretion)

Individual/Group work:

a. Students choose a song and culture to focus on. Students research the culture and history of the song/dance they have chosen.

b. Students plan their robot and program in a design journal (see Appendix).

c. Students build a robot and decorate it with recycled materials and crafts.

d. Students program their robots to dance to their chosen music

e. Students articulate the goal of their robot and its program and how they accomplished it. (Teachers can document and print children’s responses to these questions to go along with the design journals.)

f. Students practice how they will present their creations at the final exhibition.

Presentations: Students will share:

a. The song/dance and culture they chose to study

b. the robot they made and how it represents that culture

c. why they chose the features they did for their robot,

d. the goal of their program and why they wanted it to do that / what it represents,

e. the final program they built, and

f. anything that was hard, easy, surprising, interesting, etc. about the process.

Materials / Resources:

- Large icons for games and reference displays
- Engineering Design Process posters/visuals
- Engineering Design Journals for planning
- Small CHERP icons for cutting and taping/gluing in the design journals to plan their programs
- KIWI robotic parts
- Crafts and recycled materials for decorating the robots and for building an environment for them to run in
- Computers with CHERP software, webcams, and programming blocks
Lesson 1
Introduction to Cultural Dances

Overview:

Children are introduced to different kinds of dances from around the world. They start to think about which dance/culture they would like to focus on for their final projects.

Discussion: How Many Dances Can You Think Of?

- As a class, brainstorm all the dances you know and where they come from (or where you think they come from)
- Make a list and keep it up in the classroom for inspiration throughout working on the final project
- Do any of your parents, friends, or family members know any of these dances? If so, try to see if any of them would be willing to come in and teach the dance to the class sometime during the course of this project!

Watch, Learn, Try It!

As a class, check out clips of some different kinds of cultural dances and then get up and try them! Follow the interest of your students, but here are some starter ideas:

Hula: Hula is a dance form accompanied by chant (oli) or song (mele). It was developed in the Hawaiian Islands by the Polynesians who originally settled there. The hula dramatizes or portrays the words of the oli or mele in a visual dance form. There are many sub-styles and types of hula. http://www.youtube.com/watch?v=TUvetLdm3Uk&feature=related

Lion Dance: The Lion Dance is a form of traditional dance in Chinese culture, in which performers mimic a lion's movements in a lion costume. The lion dance is often mistakenly referred to as dragon dance. An easy way to tell the difference is that a lion is operated by two people, while a dragon needs many people. http://www.youtube.com/watch?v=teer4fyMIMA

Hava Nagila: “Hava Nagila” (הבה נגילה) is a Hebrew folk song that has become a staple of band performers at Jewish weddings and Bar/Bat Mitzvahs. The Horah (הרוה) is a type of circle dance that is usually performed to Israeli folk songs, and sometimes to Jewish songs, typically to the music of Hava Nagila. http://www.youtube.com/watch?v=LgvKCucx0oU&feature=results_main&playnext=1&list=PL7900844A4F132767

The Charleston: The Charleston was the dance that captured the spirit of the 1920s. It was danced with wild abandon by a new generation of independent young Americans, to the new hot jazz that was flooding the country. The dance began in Charleston, South Carolina, the city from which it takes its name. In 1923, The Charleston was featured in the Broadway show Runnin Wild, one of the biggest hits of the decade. http://www.youtube.com/watch?v=TRveIle4uAs
For more ideas about dances from around the world, try visiting the following site:

For an interactive map that you can click and get information about dancing in that region of the world: http://fitforafeast.com/dance_cultural.htm

Suggested Books To Explore Throughout the Final Project:

American, German, Italian, French – here's a great sampling of each dance using such tunes as Captain Jinks * Oh, Johnny! * Patty Cake Polka * Military Schottische * Sicilian Circle * Varsouvienne. Includes a listing of national dance organizations in the U.S. and Canada. Includes music cd.

Have fun traveling around the world with this collection of music, dances, and activities from nine diverse countries. All pages are REPRODUCIBLE and each unit includes a song, the steps to a basic folk dance, a page of fun and interesting facts about the country, its people and traditions, and an activity. The included CD provides performance and accompaniment versions of the song to help facilitate both dancing and singing in your classroom.

Jenna, a contemporary Muscogee (Creek) girl in Oklahoma, wants to honor a family tradition by jingle dancing at the next powwow. But where will she find enough jingles for her dress? An unusual, warm family story, beautifully evoked in Cornelius Van Wright and Ying-Hwa Hu's watercolor art

With vivid, whimsical illustrations and lyrical writing, Carla Golembe shares the history, meaning, and spirit of hula. The words and pictures pair together in much the same way that the chants and movements of hula complement each other, and the accompanying read-along CD further immerses readers and listeners in the joy of the dance.

The Task: After assigning groups/partners for the final project, students should begin to brainstorm which dance or culture they would like to focus on. After several exploratory sessions, students should pick a final selection.
Lesson 2
Researching Cultural Dances

Overview:
After choosing a specific culture and dance to focus on, children will research their dance.

The Task:
With the help of teachers, children will answer the following questions in their Engineering Design Journals:

1) What country did my dance originate in?
2) List three facts about this country and draw the country’s flag
3) When (what year or time period) did my dance originate in? Do people still practice this dance today?
4) What kind of music is my dance performed to? Is there a particular song, type of instrument, etc.?
5) Are there particular clothes or costumes worn during this dance? Colors?
6) Is this dance associated with a holiday, event, or religious practice?
Lesson 3  
*Designing and Building a Robot*

**Overview:**
Children will design and build robots that will be programmed to do the dance they have researched. Their robots should be built and decorated in some way that clearly represents the culture/country/dance they have chosen.

**The Task: Designing and Building a Robot** (refer to previous curriculum if your class needs a refresher or KIWI robotics concepts)

1) In Engineering Design Journals plan the design of your robot. What will it look like? What parts, shapes, and materials will you need?

2) Build your robot using KIWI parts (can be vehicle style OR a kinetic sculpture style robot)

3) Decorate your robot to represent the dance you have chosen. Here are some ideas to consider:
   - Are there particular clothes or costumes that people wear when doing this dance?
   - What country did your dance originate in? Can you decorate your robot with the country’s flag or colors?
   - Are there any symbols that represent the culture you have been studying?
Lesson 4
Programming Your Robot to Dance

Overview:

Children will program their robots to dance to the music/song they have chosen. This part of the project may take several sessions or trial and error to complete. Children should be encouraged to experiment and play with their programs until they put together one that works.

The Task:

1) Students will plan possible programs in their Engineering Design Journals
2) Listening to their music and watching clips of the dance they have chosen, they will test out different programs until they find a program that works represent their dance.

Programming Requirements:

1) The robot’s program must represent the movements of the child’s chosen dance (can be abstract, but the child must be able to explain the connection)

2) The program must use a sound sensor so that the robot does not start dancing until music is played and so that it stops dancing when the music stops. OR Use a distance sensor to stop or start dancing when near something/someone.

3) Program must use Repeats and/or If commands

Discuss: Repeats and Sensors in Dance

- Review the concept of Repeats. How might Repeats help with programming a dance? What is a simple song and dance we all know that repeats something (e.g. Head, Shoulders, Knees, and Toes)? Which parts are repeated?

- How do we use our senses when we dance? How do we use our senses to dance with another person? How might we use sensors on our robots to help them dance?
The Final Project Showcase

Overview:

Invite parents, family, friends, siblings, and schoolmates to come to a final showcase celebrating the many cultures your students have been studying & to demonstrate their robotics and programming knowledge!

To make the robotic demonstrations part of a bigger multicultural celebration, have a potluck with foods from different cultures, wear clothes that represent the different cultural backgrounds of the children in the class, and decorate the classroom with artwork and maps from around the world.

Language Arts Connection:

- **Invitations:** Write out and mail invitations to your family inviting them to come to your final project presentation. Add illustrations and information describing your project.

- **How-To Book:** Create a comprehensive How-To Book describing how to do the dance you selected and/or a How-To Book describing the steps to build and program the robot you made.

Math Connection:

**How Many?** As a class, keep a chart that graphs how many of all the different types of robotic and non robotic parts you used. Make a report to display and share on the presentation day.

History and Social Studies Connection:

- Create a display for your robot including the different facts you have learned about the country and culture your dance originated in. Include the country's flag, colors, artwork, a map, etc.

- Read any of the suggested books from Lesson 1

- See Appendix for a list of books and activities that celebrate multicultural themes
MULTICULTUAL BOOKS AND RESOURCES


Brief text and illustrations by ten internationally well-known artists reveal a day in the lives of children in eight different countries showing the similarities and differences and emphasizing the commonality of humankind.

All Kinds of Children. By Norma Simon, illustrated by Diane Paterson. Albert Whitman & Company, 1999. Presents the things that children all over the world have in common, including their need for food, clothes, people to love them, and the opportunity to play.

All Kinds of People. By Jennifer Waters. Spyglass Books, 2003. Explores the diversity among humankind, including differences in physical appearance, communication, mobility, and personality.

All the Colors of the Earth. By Sheila Hamanaka. Morrow Junior Books, 1994. Reveals in verse that, despite outward differences, children everywhere are essentially the same and all are lovable.

Amazing Grace. By Mary Hoffman, illustrated by Caroline Binch. Dial Books for Young Readers, 1991. Although a classmate says that she cannot play Peter Pan in the school play because she is African-American, Grace discovers that she can do anything she sets her mind to do.


Twelve children from different countries describe how they live.

Happy to be Me. By Bobbie Kalman. Crabtree Publishing Group, 1985. Discusses how all people are different, have their own special strengths and qualities, and continue to grow and change.

In rhyming text, a child expresses her self-esteem and exults in her unique identity.


Richly illustrated, this simple, rhyming text describes the multiplicity of colors used and the numerous ways the African people incorporate the fabric into their daily lives.

**Multi-Cultural Books. by Ann Morris:** [www.annmorris.com](http://www.annmorris.com)

**Single Concept Books**


**The Skin You Live In.** By Michael Tyler, illustrated by David Lee Csicsko. Chicago Children’s Museum, 2005. Presents a rhyming verse that describes skin and its many attributes, including its color, its elasticity, and all the things it does.

**We All Sing with the Same Voice.** By J. Philip Miller and Sheppard M. Greene, illustrated by Paul Meisel. Harper Collins, 2001. Comes with CD.

This joyful Sesame Street song embraces the notion that no matter where children live, what they look like, or what they do, they’re all the same where it counts--at heart.

Ashley Bryan's artwork depicts Louis Armstrong and children of many backgrounds performing a puppet show that brings to life the song Armstrong made famous.

**What Was It Like, Grandma?** A series of books by Ann Morris, photographs and illustrations by Peter Linenthal, The Millbrook Press.

In each book, children from a particular culture (Arab-American, Chinese-American, Jewish-American, Hispanic-American, etc.) learn about their family and cultural history from their grandmother.

**INTERNET LINKS FOR EARLY CHILDHOOD**

**MULTICULTURAL RESOURCES**

**BOOKS LISTS – Multicultural themes for early childhood**


National Education Association (NEA): [http://www.nea.org/readacross/resources/50multibooks.html#preschool](http://www.nea.org/readacross/resources/50multibooks.html#preschool)


ACTIVITIES LISTS – Music, crafts, activities on a multicultural theme

Gayle’s Preschool Rainbow:  http://www.preschoolrainbow.org/multicultural.htm

First School:  http://www.first-school.ws/theme/places.htm

Homemade Instruments by Nancy Stewart  www.nancymusic.com

Putumayo World Music  www.putumayo.com

African Music includes a You Tube clip:  http://trumpet.sdsu.edu/M345/African_Music1.html

Big Brazos World Village  www.bigbrazos.net/index.html

Source for multi-cultural instruments, CDs, books

Culture For Kids  www.cultureforkids.com  Resource for Language & Culture

Asia Kids  www.asiaforkids.com  Resource For Language and Culture

African Dashiki Shirts  www.amazon.com