

Photosynthesis Cultural Dances

Get Smart THROUGH the
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Life Science & Dance

Grade
7

Science Standard

3.7.B.1.B Based on the data from readings and designed investigation, cite evidence to illustrate that the life functions of multicellular organisms (plant and animal) are carried out within complex systems of different tissues, organs and cells.

- Making raw materials

Dance (MD) Standard(s) Grade 6

- Understand the diversity and commonality, human interdependence, and global cooperation of the people of the US and the world through a multi-cultural and historic perspective
- Develop the ability to recognize dance as an essential aspect of history and as an expression of human experience
- Perform simple movement sequences with awareness of space



CONNECTED OBJECTIVES

Students perform simple movement sequences to demonstrate their knowledge of the process of photosynthesis while using and recognizing dance as an expression of cultural diversity and expression. Students learn fun and easy traditional dances from different cultures.

MATERIALS & RESOURCES

- Tanko Bushi Dance
<http://www.youtube.com/watch?v=yjP79-0aE7k>
- Use TimGregory.org for introduction
- Worksheet with Process of Photosynthesis
- Use Tanko Bushi music or other similar music

KEY CONTENT VOCABULARY

- Photosynthesis
- Carbon Dioxide
- Glucose

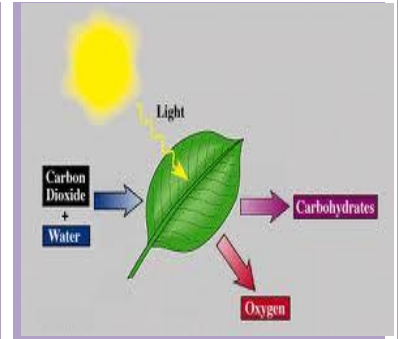
KEY ARTS VOCABULARY

- Locomotive
- Non-locomotive

A S S E S S M E N T

Rubric that includes:

- Students use improvisation to create their own dance using movements that represent each element of the process of photosynthesis
- Students review and assemble the dances they learned into a sequence that follows the above process.
- Students share their dance with an audience
- All students in group must participate.



L E S S O N S T E P S

Introduce dance as a way people express their culture and identity.

- Show some of the dances performed on Tim Gregory's site to introduce awareness to other cultures and how they use dance to tell a story and express themselves (The Welcome Dance would be good to show)
- Ask students to guess what some of the movements might represent in the video.
- Talk to students about how music and dance can be used to tell the others about a cultural.
- Show the Tanko Bushi dance, explain the history behind the dance (about mining coal in Japan)
- Demonstrate (shovel and kick foot on same side (once on each side), throw coal over your back on each side, then block the sun with your eyes 2x (coming out of the mine), then push with your hands 2x and then finally open the door 2x and clap twice)
- Have students stand in a circle and teacher leads the class in the dance.

Create their own Tanko Bushi for photosynthesis.

- Have students form groups of 4 or 5.
- Have each group come up with their own dance similar to "Tanko Bushi".
- Each group will use improvisation to create movements for each part of photosynthesis; repeating each movement twice
- Give students time to practice

Students Perform their Dances

- After each group performs have the audience participate by guessing how each movement demonstrated the process of photosynthesis.
- Allow the audience to give "put ups" for what they liked about the dance.

Evidence of Learning

- Have students complete an exit ticket explaining the process of photosynthesis and where it occurs in the plant. (the cells). Also, do you think this danced help you remember the process of photosynthesis and why?

EXTENSIONS & OPTIONS

Students are learning Photosynthesis and Cellular Respiration at the same time. This dance could be used for both processes

- Assign one of the above processes but do not reveal to other groups; they have to figure out which processes is being performed.
- Students that cannot stand could use hand motions
- Use video recorder or camera.

SOURCES & RESOURCES

<http://www.youtube.com/watch?v=yjP79-0aE7k>
www.timgregory.org

G E T S M A R T T H R O U G H T H E A R T S

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S u p p o r t i n g D o c u m e n t s

Names of students in group _____

Photosynthesis Dance

Create your own **Tanko Bushi** dance by creating a movement for each part of the process of photosynthesis. Be sure to fill out the worksheet by describing the movement under each part.

(chemical reaction)

Carbon Dioxide	Water	Sunlight	Energy	Glucose (food)	Oxygen