SECTION I - OVERVIEW

EPISODE THEME
Telling Stories

SUBJECT
ShadowLight Productions

GRADE RANGES
K-12 & Post-secondary

CURRICULUM CONNECTIONS
Theatre, Language Arts, Science & Visual Arts

OBJECTIVE
To introduce students to the art form of shadow puppetry in the Indonesian tradition, including the history and practice, the role of the puppeteer, and the role of accompanying gamelan musicians.

STORY SYNOPSIS
For the past thirty years, Larry Reed has dedicated himself to the study and practice of the ancient Balinese art of shadow puppetry. He has become a master of this traditional storytelling form, using it to tell tales from many different cultures, and adapting it for contemporary audiences with the addition of modern multi-media technology. SPARK is there as he debuts his latest work, a traditional Balinese tale called Dangerous Flowers.

INSTRUCTIONAL OBJECTIVES
To introduce students to shadow puppetry
To introduce students to myths and storytelling traditions from Bali, Indonesia
To introduce students to the Balinese gamelan

EQUIPMENT NEEDED
SPARK story about Shadowlight/Larry Reed on DVD or VHS and related equipment
Computer with Internet access, navigation software, speakers and a sound card, and color printer
Audio recordings and audio equipment, such as a tape deck or CD player
Single light source (spot light, studio lamp, etc.)

MATERIALS NEEDED
Paper & pencils
Access to libraries with up-to-date collections of periodicals, books, and research papers
Crayons, markers, colored pencils
Glue, stapler & staples, metal paper fasteners
Decorations (for puppets) if desired

INTELLIGENCES ADDRESSED
Linguistic – syntax, phonology, semantics, pragmatics
Interpersonal – awareness of others’ feelings, emotions, goals, motivations
Intrapersonal – awareness of one’s own feelings, emotions, goals, motivations
Bodily-Kinesthetic – the ability to use one’s mind to control one’s bodily movements
Musical – the ability to read, understand, and compose musical pitches, tones, and rhythms

INSTRUCTIONAL STRATEGIES
Individual student work on creative projects
Individual student writings
Participation in group discussion
Participation in group creative projects

See more information on Multiple Intelligences at www.kqed.org/spark/education.
In the SPARK story, “ShadowLight,” we follow actor and director Larry Reed, as he prepares for a homecoming performance of a traditional Balinese shadow play at the Julia Morgan Theatre in Berkeley. For over 30 years, Reed has studied, performed, and developed this ancient art form, producing unique performances that have stretched the bounds of the tradition.

Introduced to shadow puppetry over 30 years ago in Bali, Reed found himself drawn to the complex, spiritual and ancient tradition which for him was like witnessing “the first animation, or a primordial movie.” Compelled by the power and ephemeral nature of shadows, Reed spent the next ten years learning the art form in the traditional manner, by apprenticing himself with Shadowmasters and learning the form by listening, including the stories, the puppetry techniques, and all the aspects of Balinese shadow play. Today, Reed performs in the traditional style, using one oil lamp, puppets, and a few accompanying musicians. However, his company – ShadowLight Productions – is a changing ensemble of actors and puppeteers who create modern shadow puppet works on a cinematic scale complete with scene changes, lighting cues, and live musical accompaniment.

The Balinese shadow puppet theater is called Wayang Kulit. It is a tradition that has been passed down through generations for over 1,000 years. Mythic tales and archetypal characters from the Mahabharata and the Ramayana (epic stories) are played out in shadow, blending high drama, improvisation, and slapstick comedy. In a performance, over 20 intricately-carved leather puppets are manipulated by one puppeteer, the Dalang or Shadowmaster. The Dalang also provides all of the puppet voices, and is the director and conductor. Balinese shadow puppets are animated atop a banana log in between a large screen and a coconut oil flame so that their images cast shadows onto the screen. Two to four gamelan musicians sit behind the Dalang and respond to every move of the performance with sound effects and polyrhythmic melodies on their instruments, which can include bronze-keyed metallophones, gongs, drums, flutes or bamboo.

In the Balinese cosmology, the banana log onto which the puppets are placed represents the earth, the screen is the sky, and the Dalang is God – the one who controls all movements, voices and events. In the SPARK story viewers get a glimpse into the world “behind the screen” and the many challenges that accompany both small and large-scale productions. An incredible amount of coordination is necessary to perfectly time the movements of the puppets with those of the movement actors, as well as the voices of the actors speaking the parts and the music with the movements on the screen.

The term “gamelan” (pronounced gam-eh-lawn) means orchestra, or the music created by people playing the instruments of the gamelan. This set of instruments is configured in different combinations, tunings, and sizes for specific religious or secular activities. There are almost as
many different kinds of gamelans in Bali as there are occasions for them to be heard.

The term gamelan itself derives from a Javanese verb meaning “to handle.” Gamelan compositions are referred to as tabuh, gending, or lagu. The gamelan includes the most unique and identifiable sound of Balinese music - the bronze gongs. As the strongest and most important timbre, the gong dominates and leads the gamelan. It anchors the drums, flutes, and keyed metal instruments (metallophones) that comprise the remainder of the orchestra. Each instrument of the gamelan has been forged simultaneously, and they are all in turn blessed by a priest, never to be sold individually.

Traditional gamelan orchestras play only composed music that has been rehearsed to perfection. Since there is no improvisation, there is little to no opportunities for individual expression. The goal is not to showcase individual musicianship, but to demonstrate an absolutely unified musical expression.

Our story concludes with the traditional performance of *Wayang Bali: Dangerous Flowers* at the Julia Morgan Center for the Arts in Berkeley, CA. Still image from SPARK story, November 2003.

Our story concludes with the traditional performance of *Wayang Bali: Dangerous Flowers* at the Julia Morgan Center for the Arts, with a twist. Instead of just two or four musicians, ShadowLight’s production features all twenty musicians from Gamelan Sekar Jaya, one of the Bay Area’s premier Gamelan orchestra’s, creating a full-bodied sound-scape. Before the show, Reed takes some quiet time to transition from everyday activity to essentially performing a sacred act. In keeping with the improvisational nature of the tradition, he takes his cues from the audience to extend certain scenes, tell jokes, or move on to the next chapter, all to the delight of the audience.

**RESOURCES – TEXTS**


Barliger, Jess and Bob Staake (Illustrator). *Shadowy Science: All You Need Is a Shadow*. Bt Bound; (March 2001).

**RESOURCES – WEB SITES**

ShadowLight Productions - The official organizational Web site, including information on the history of the company, the tradition, Larry Reed’s background, upcoming events and past performances. - [www.ShadowLight.com](http://www.ShadowLight.com)
Gamelan Sekar Jaya – Web site for a Bay Area gamelan orchestra, including interesting information on what a gamelan is and a great resource for further research. - www.gsj.org

American Gamelan Institute’s (The) – The AGI’s Web site offers interesting resource for all things gamelan, including a great list of Balinese musical recordings. They also publish the journal, Balungan. - http://www.gamelan.org

Arts Education Foundation - Access Asia and the Curriculum Foundation (Australia) Web site contains a study unit on Indonesia with specific information on Wayang Kulit, including a Wayang Kulit quiz and templates of certain characters that students can cut out and use to make their own shadow puppets. They also offer a nice list of curriculum guides and activities about Indonesia.- http://www.curriculum.edu.au/accessasia/indonesia/teacher/classroom/wayang.htm#terminology.

Bali and Beyond – A performing group based in Los Angeles, who’s Web site contains a lot of interesting information on the tradition. - http://www.balibeyond.com/index.html


Office of Resources for International and Area Centers (ORIAS) - A joint program of the Title VI Area Centers at UC Berkeley, dedicated to providing scholarly resources and supporting professional development for K-12 teachers addressing international studies. There are comprehensive web-based resources, curriculum materials, and classroom activities. - http://www.ias.berkeley.edu/orias/lessonplan.html

RESOURCES – VIDEO RECORDINGS

Island of Temples [videorecording] Directed by Deben Bhattacharya; produced by Seabourne Enterprises (Film Productions) Ltd. London: Sussex Tapes; Guilford, CT: Distributed in the U.S. and Canada by Video-Forum, a division of Jeffrey Norton Publishers, Inc., [1992?] [VHS - 26 minutes] - Package includes 1 booklet. Filmed in Bali, the Hindu island, this video illustrates the day-to-day life of the islanders, their folksongs, Gamelan orchestras and dance-dramas. The temple is the focal point of each village, where the villagers gather for religious ceremonies as well as for music and dance. The film shows two long extracts from the religious dance-dramas named “Barong” and “Kecak.”


Copper, Tin and Fire: Gongsmiting in Java. - Making a small gong from start to finish, and an interview with gamelan maker Tentrem Sarwanto. (See http://www.gamelan.org for information on how to order.)

The following are available through ShadowLight at http://www.ShadowLight.com/gifts.html:

ShadowMaster (VHS - 54 min) - A dramatic documentary about a family of performers in Bali. Directed by Larry Reed and filmed by John Knoop, it was completed in 1981 and has aired on PBS and the Discovery Channel. ShadowMaster presents an inside view of Balinese life, revealing the cultural context of theater, music, and dance on the island. The film is narrated by the dalang’s daughter as she remembers the summer before she left home, and the boy she left behind. (Cost $40)

In Xanadu (VHS - 75 min) - An epic love story about Khubilai Khan and his wife Chabui, performed with live and recorded music by Miguel Frasconi, sung by Tibetan and Chinese opera singers. (Cost: $25)

Mayadanawa (VHS - 26 min) Created by Larry Reed, I Dewa Berata and I Wayan Wija (arguably the most popular shadowmaster in Bali), the Mayadanawa performance involved 50 people and toured extensively in Bali. The video documents the creation of a live shadow theater play. Included are clips from the rehearsals as well as the live performances -- from both in front of and behind the coconut lamplit screen. (Cost: $25)
Sidha Karya (VHS - 20 min) - Sidha Karya tells the story of an arrogant king brought down by a beggar. The shadow sets were designed and chiseled with puppet-making tools by I Dewa Putu Berata. The shadow masks were made by I Made Sija. For this production, two types of traditional Balinese theater (mask and puppet) were merged for the first time on a giant scale. Sidha Karya is a collaboration with the renowned gamelan orchestra Gamelan Sekar Jaya involving forty performers, masks and shadows. (Cost: $25)

RESOURCES – AUDIO RECORDINGS


BAY AREA RESOURCES

ShadowLight Productions
Phone: 415/648-4461
info@ShadowLight.com
http://www.ShadowLight.com

Gamelan Sekar Jaya
6485 Conlon Avenue
El Cerrito, CA 94530
Office: 510-237-6849
Recorded Info/Fax: 510-237-5599
http://www.gsj.org

World Arts West
A non-profit arts organization that presents The San Francisco Ethnic Arts Festival and People Like Me

Fort Mason Center
Landmark Building D
San Francisco, CA 94123-1382
Phone: 415/474-3914
Fax: 415/474-3922
http://www.worldartswest.org

Gamelan Anak Swarasanti
An award-winning professional Balinese gamelan based in Santa Cruz. The group has its origins in UCSC’s teaching gamelan, Gamelan Swarasanti. – Email: info@anakswarasanti.com, http://www.anakswarasanti.com/introduction/

University of California, Berkeley, Dept. of Music
Traditional music of Indonesia, performed on the Music Department’s gamelan Khyai Udan Mas. Public performances may also feature Indonesian shadow play. - http://ls.berkeley.edu/dept/music/performance.html#gamelan

Young Audiences of Northern California
Local Bay Area non-profit organization with a diverse roster including Gamelan Sekar Jaya and Kulintang Dance Theatre available for assembly and residency programs at Bay Area K-12 schools. 415/974.5554
http://www.yabayarea.org
SECTION III – VOCABULARY

DISCIPLINE-BASED VOCABULARY AND WORDS AND CONCEPTS IN THE SPARK STORY

**Animation**
An illustration or cartoon that is made into film by photographing a series of still images

**Mahabharata** (pronounced !ma-ha-bar-a-ta)
The longest epic in world literature, composed between 500 BC and 300 AD. Sometimes referred to as “the great story of India”, as it means “great story of the Bharatas”, referring to the ancestral people of India. It is comprised of 18 books containing complex stories of Hindu mythology.

**Balinese Gamelan**
Gamelan in Balinese means orchestra. A traditional Balinese Gamelan consists of many different instruments, including drums, bronze-keyed metallophones, gongs, flutes, and cymbals.

**Mythology**
A fictional story or traditional narrative often based on historical events about heroes, ancestors, or supernatural beings that reveal human behavior and natural phenomena by its symbolism.

**Banana log**
A log from a banana tree; in Balinese shadow puppetry, the log serves as a base on which puppets are placed and held when not being actively used by the puppet master; it also represents the earth.

**Organic**
Simple, basic and close to nature

**Cosmology**
A branch of philosophy that deals with the origin, processes, and structure of the universe; also, the astrophysical study of the structure and dynamics of the universe

**Primordial**
Something which belongs to the earliest stage of development of an organism or part, or something which is fundamental or primary in nature

**Dalang**
The “Shadowmaster” or master puppeteer in Balinese shadow puppetry; the Dalang is responsible for all the voices, movement of all characters, and telling the story.

**Sacred Screen**
The flat object upon which a movie, or visual image is projected. In Balinese Shadow puppetry, the screen represents the sky, and shadow images of mythological characters are cast on it to tell a story, dedicated to the worship of a deity (mythical creature, god, or goddess).

**Dreamscape**
The location or environment of one’s dreams

**Script**
A document that contains the actual words that will be spoken during a theater performance

**Ephemeral**
Something that lives or lasts for only a brief time

**Hanuman**
A monkey from Southern Asia; in Hindu mythology, Hanuman is the monkey god and King of Hindustan. He helped win the war of good over evil in the ancient epic Ramayana.

**Shadow**
The image cast by an object blocking rays of illumination.

**Interpret**
To explain to oneself the meaning of something, such as through artistic performance

**Shadow plays**
Theatrical presentations in Indonesia, India, China and Greece that involve the use of puppets to cast shadow upon a screen while a puppet master tells a story with live musical accompaniment.
**Single point light source**
One single source of light that is projected towards the screen in order to cast specific shadows

**Still photographs**
Photographs of objects that are not moving

**Tradition**
The passing down of elements of a culture from generation to generation, especially by means of oral communication

**Wayang Kulit**
A sacred Balinese performing art featuring shadow puppets manipulated by a Dalang or a Shadowmaster and a Balinese gamelan (musicians). Literally translated, “wayang” means shadow or ghost, and “kulit” means skin, referring to the fact that traditional shadow puppets are usually made out of leather.
SECTION IV – ENGAGING WITH SPARK

STANDARDS-BASED ACTIVITIES AND DISCUSSION POINTS

Create your Own Puppets
The puppets used in Balinese and Javanese shadow puppet theater are flat, two-dimensional puppets with movable arms and legs, usually made out of leather. Intricately cut and decorated, attached to a stick, shadow puppets are controlled from below by the puppet master. Students can make their own shadow puppets using heavy construction paper or thin cardboard. Screen the SPARK story to give students ideas. Puppets can be made in 4 or 6 pieces, including head, body, two arms, and two legs (the legs can be omitted for younger aged students).

To begin, brainstorm ideas for puppets or provide a list of possible characters from stories or books. First, ask students to draw the face of their character in profile – facial features can be exaggerated for visual effect, such as eyelashes, noses, chins, cheeks, hair, and lips. Then, help students decide on the body shape. (To make the exercise easier, one standard cone-shaped body can be provided by the teacher.) Then ask students to draw the arms with hands, as well as the legs with feet—again exaggerating features for visual effect, such as long fingernails, bent elbows, long toes, etc. Provide scissors for students to cut out their pieces.

When all of the pieces are cut, attach the head to the body using glue or staples so that it does not move. Use metal paper fasteners to attach the limbs so that they can move freely up and down. Once assembled, students can add color and/or decorations to their puppets, depending upon the character and visual effect. When fully decorated, attach the body to a 10” to 15” ruler or stick.

The completed puppets can be used to tell stories like those demonstrated in the ShadowLight story. To create a shadow puppet performance you will need: puppets, an undecorated light-coloured sheet, thin tablecloth, or other light fabric to use as a screen, and a single strong light source such as a spot light or studio lamp. Traditional shadow puppet performances are acted out on top of a log. You can replace this with a table or other dais tall enough for students to crouch or sit beneath. Hang the sheet or fabric above your table or dais, light source behind.

Listening to a Gamelan
Using the resource list, listen to a recording of a gamelan ensemble. What is different or unique about the sounds of this orchestra? What are the instruments? Assemble some illustrations of instruments from the resources and talk about the shape and names of the gamelan instruments. Discuss with students how a musical ensemble can accompany a theater performance or storytelling. What might some of its functions (marriage ceremonies, births, funerals, political inaugurations)? Challenge them to identify differences in tempos or dynamics, or complexity of phrases? What might those differences suggest if they were helping to tell a story or express a mood?

RELATED STANDARDS
THEATRE
Grade 5 – Creative Expression
Standard 2.0 – Creation/Invention in Theatre
Collaborate as an actor, director, scriptwriter, or technical artist in creating formal or informal theatrical performances.
Grade 7 – Historical and Cultural Context
3.0 Role and Cultural Significance of Theatre
.1 Design and create masks, puppets, props, costumes, or sets in a selected theatrical style drawn from world cultures, such as Javanese shadow puppets or Kabuki masks.

RELATED STANDARDS
MUSIC
Grades 9-12, Proficient
3.0 Historical and Cultural Context Aesthetic Valuing
Standard 3.0 - Role of Music
3.2 Explain the various roles that musicians perform, identify representative individuals who have functioned in each role, and explain their activities and achievements.
4.3 Explain how people in a particular culture use and respond to specific musical works from that culture.
Shadows

2200 years ago, Egyptian librarian Eratosthenes made a remarkably accurate measurement of the earth’s circumference by using shadows. The Noon Day Project developed by the Center for Improved Engineering and Science Education allows students around the world to collaborate on an experiment to calculate the earth’s circumference using basically the same techniques as Eratosthenes. Visit the Center’s Web site for more information: http://www.k12science.org/noonday. Participants do need to register, although there is no fee for participating. The next registration deadline is in February 2004.

Experiments with Shadows

Light travels in a straight line until it strikes an object. Light waves can be reflected by a mirror, refracted by a lens, or absorbed by an object. Shadows are created when something comes in between a light source and a surface. Conduct in-class experiments on creating shadows. How do they relate to the heat from a light source? Where do they go at night or in the dark? Why are shadows different sizes or shapes? Why are no shadows present sometimes? Using a single light source, such as a strong flashlight or a spotlight, turn off all the lights in a room except for your single light source, aimed at a clear surface like a screen or paper or section of wall. Experiment with making shadows with hands or small objects. Place them in the path of the light at different distances from the light source. How do the shadows change in size and shape depending upon the proximity of the object to the light source? How can you use shadows to determine the location of a light source? How can you refract or bend the light using mirrors or a lens?

Comparing Orchestras

Discuss the idea of how in different countries, an orchestra can not only sound completely different, but serve different purposes. Have students watch the SPARK episode and notice that the Balinese Gamelan is completely different from an orchestra one might see in the United States. For one thing, Wayne Vitale of Gamelan Sekar Jaya tells us that ALL the instruments – the bronze metallophones and gongs – are forged at the same time, and then are tuned and blessed to create a unified whole. Therefore, you can’t just buy one instrument – you have to buy the whole orchestra of all instruments at once.

Furthermore, the instruments don’t belong to the musicians, but are looked after by a designated person, very different from a Western orchestra in which a musician owns his or her instrument and is responsible for its care and transportation. Discuss these and other differences, such as the roles of the orchestra in the culture (sacred verses secular, accompanying dance, shadow-puppet theater, etc.). What instruments do the students see or hear? Is there anything like those instruments in a Western orchestra? Students can use the Internet or the list of resources in this Guide to research the instruments of a gamelan and the different kinds of gamelan ensembles (Gamelan Angklung, Gamelan Jegog, etc.) and present their findings to the class.

RELATED STANDARDS

SCIENCE

Grade 3
Physical Sciences

Standard 2. Light has a source and travels in a direction. As a basis for understanding this concept:

a. Students know sunlight can be blocked to create shadows.
b. Students know light is reflected from mirrors and other surfaces.
c. Students know the color of light striking an object affects the way the object is seen.
d. Students know an object is seen when light traveling from the object enters the eye.

GRADE 7 – PHYSICAL PRINCIPLES IN LIVING SYSTEMS (PHYSICAL SCIENCE)

Standard 6. Physical principles underlie biological structures and functions. As a basis for understanding this concept:

a. Students know visible light is a small band within a very broad electromagnetic spectrum.
b. Students know that for an object to be seen, light emitted by or scattered from it must be detected by the eye.
c. Students know light travels in straight lines if the medium it travels through does not change.
f. Students know light can be reflected, refracted, transmitted, and absorbed by matter.
**Telling Tales**
Retell a legend, myth or fable orally. Select from the California Standards list of suggested reading materials for K-8 (see [http://www.cde.ca.gov/literaturelist](http://www.cde.ca.gov/literaturelist)). Read the story to the class and discuss what happened in the story – who are the main characters, what was the conflict in the story, what events take place and how does it end or resolve? Challenge students to retell the story in their own words.

**Puppetry**
Much of the shadow puppet theater acts out stories from the Mahabharata, the great Indian epic story. Try creating a similar presentation using puppets and music or sound accompaniment with a more familiar story, folktale, myth, or an original story written by the students. Using the previous activity as a starting point, students could select a story, make puppets for the story (maybe just one or two puppets per puppeteer, and they don’t have to be shadow puppets), designate puppeteers, a storyteller, and musicians or other aural accompaniment for the action in the story. Think about the characteristics of each puppet. They should take on attributes that they have in the story and can be stylized to represent those characteristics.

**Myths and Legends**
Myths and legends are a central part of virtually every world culture, often containing messages of moral, religious, or social importance in addition to telling the stories of how and why things are the way they are in the world. Challenge students research their own background to discover the creation myths and legends of their cultures. Using images and other resources, invite students to share their stories with the class. Take this a step further by creating a classroom performance from selected myths, using puppets or masks and even music to tell the tale(s).

**Researching Puppetry**
Shadow puppetry is found in Bali, Java, South India, China and Greece – it is just one of the many world traditions of storytelling using puppets. As a class, research different world traditions that use puppets as a form of storytelling, such as like Vietnamese water puppets, Greek and South Indian shadow puppetry, marionettes, and even Jim Henson’s *Muppets*. Challenge them to research the kinds of stories told, the purpose of those stories, the occasions in which a story might be told, and the technique behind making and presenting the stories. Ask students to report back to the class on their findings, providing images and other resources about what they learned.

**Creating a Shadow Puppet Performance**
Visit the Berkeley ORIAS Web site for an idea and a complete Ramayana Shadowplay Script, written and performed by Donna Kasprowicz’ 6th grade class at Corte Madera Middle School in Portola Valley, California. Consider recreating the same performance. Kasprowicz includes great project ideas on making shadow puppets as well as masks and story cloths - [http://www.ias.berkeley.edu/orias/SEARama/RamaOverview.htm](http://www.ias.berkeley.edu/orias/SEARama/RamaOverview.htm).

**RELATED STANDARDS**
**LANGUAGE ARTS**
Grade 2 - 3.0 Literary Response and Analysis
Narrative Analysis of Grade-Level-Appropriate Text
3.1 Compare and contrast plots, settings, and characters presented by different authors.

Grade 8 – Listening and Speaking
Organization and Delivery of Oral Communication
1.3 Organize information to achieve particular purposes by matching the message, vocabulary, voice modulation, expression, and tone to the audience and purpose.
1.5 Use precise language, action verbs, sensory details, appropriate and colorful modifiers, and the active rather than the passive voice in ways that enliven oral presentations.
2.5 Recite poems (of four to six stanzas), sections of speeches, or dramatic soliloquies, using voice modulation, tone, and gestures expressively to enhance the meaning.

Listening and Speaking
1.0 Listening and Speaking Strategies
Comprehension
1.1 Recognize strategies used by the media to inform, persuade, entertain, and transmit culture (e.g., advertisements; perpetuation of stereotypes; use of visual representations, special effects, language).
1.2 Analyze the impact of the media on the democratic process (e.g., exerting influence on elections, creating images of leaders, shaping attitudes) at the local, state, and national levels.
1.3 Interpret and evaluate the various ways in which events are presented and information is communicated by visual image makers (e.g., graphic artists, documentary filmmakers, illustrators, news photographers).