Instrument:
Kakko, a rhythmic conductor

Country:
Japan

Flag:
The large red dot on the white background represents the sun without rays.

Size and Population:
Japan has an area of 145,870 square miles, with a coastline of 5,857 miles, 1,182 square miles of inland water and no land borders. It is slightly smaller than California. Japan’s population is estimated at 127,253,075; ranked 10th in the world as of July 2013.

Geography and Climate:
There are thousands of islands that make up the country of Japan, but the four largest from north to south are Hokkaido, Honshu, Shikoku, and Kyushu. The islands of Japan face Korea, Russia, and China. The country’s northernmost islands are located at the latitude of Portland, Oregon, while its southernmost are in line with the Bahamas. The earth’s tectonic plates meet below Japan causing many earthquakes and forming several mountains and volcanoes on the land. Mountains and hills cover most of the country leaving narrow plains along the coast where most of the people live. The capital, Tokyo, is located on the east coast and centered on Honshu.

Because Japan extends so far to the north and south, the climate varies tremendously. There are long, hot summers and mild winters on the southern islands of Kyushu and Shikoku. The central Honshu has warm, humid summers and sunny autumns and springs. Northern Hokkaido has cool summers and cold winters.

Background and History:
While the origins of the Japanese people remain a mystery, scientific evidence shows that people hunted, fished and gathered on the islands around 4,500 B.C. According to legend Jimmu Tenno became Japan’s first emperor in 660 B.C. Warring clans headed by chiefs controlled the area after 200 A.D. By around 400 A.D., new ideas and technologies began arriving from China. Two new ideas were the system of ruling by imperial court and the religion of Confucianism. Ancestors of Japan’s imperial ruling family today came from the period of around 400 A.D. Soon afterward, a central government was set up and controlled by the emperor. In 858 the
Fujiwara family began a 300-year rule at the imperial court. Yoritomo became the first shogun in 1192. Shoguns were military leaders who governed Japan until 1867, giving little power to the emperors.

Portuguese sailors became the first Europeans to reach Japan in 1543 but by the early 1600s Japan had cut it ties with the outside world. At this time the Tokugawa family had begun a 250-year rule. In the mid 1800s Commodore Matthew Perry visited Japan and opened two U.S. trading ports, ending Japan’s isolation from the rest of the world. At this time the Tokugawa family was overthrown, returning traditional powers to the emperors. With the capital in Tokyo in 1868, Japan started on a path to become a modern industrial nation. When Japan defeated Russia in the 1904-05 war, it established Japan as a global power. On the side of England in WWI, Japan seized German land in China, continuing the country’s political expansion in Asia. After devastating earthquakes in 1923, Japan went on the offensive and seized more Chinese land, and its war with China in 1937 became part of WWII. In 1941, Japan attacked the U.S. at Pearl Harbor, but this tragic war in Asia ended with two atomic bombs on Japanese cities in 1945. At its height in 1942, Japan controlled an area of land and ocean in Asia of around 21,150,000 square miles compared with today’s area of 145,870 square miles of land.

In 1947, Japan’s democratic constitution went into effect and in 1951 the country signed a general peace and security treaty with the U.S. The Allies left Japan the next year. In 1960 a cooperation and security treaty was signed with America, but by the 1980s there was growing opposition to Japan’s one-sided trade policies. A decade later Japan agreed to ease impediments to foreign business. Even though the emperor continues to symbolize Japan’s unity, control of the country resides with politicians, bureaucrats, and business executives. The current chief of state in Japan is Emperor Akihito (1989). The head of government is Prime Minister Shinzo Abe (December 2012).

**Culture:**

The Japanese call their country Nippon or Nihon, which means “source of the sun.” The population is 99 percent Japanese with the remaining one percent mostly Korean, Chinese, Brazilian, and Philippine. Shinto and Buddhist religions are practiced by 84 percent of the population and 0.7 percent is Christian. Three fourths of Japan’s people live in the cities that have become centers of modern commerce. City dwellers have a comfortable living standard and while rural families earn less income as farmers, they still have modern conveniences.

The family as a group unit is very important in Japan, but has become less formal since the 1950s. For example, marriages are no longer pre-arranged and children can choose their own profession. Clothes are important in Japan and Western styles have mostly been adopted over the traditional *kimono* (keh-moh-noh). The main food in the country is rice, which is served at almost every meal. Their diet includes raw fish with rice, beef and vegetables, soybean soup, and fried fish and vegetables in a batter. The Japanese enjoy Japanese sports like *sumo* (sue-moh) wrestling, *judo* (ju-doh) and *aikido* (eye-key-doh) as well as skiing and golf. Japan has a very high literacy rate and education is a high priority. Of the 460 universities, Toyo’s Nihon University is the largest with over 80,000 students. The arts have a long and valued tradition in Japan including historical dramas like the *no* play and *kabuki* (kah-boo-key) theater, literature like the ancient novel *The Tale of Genji*, sculpture like small *haniwa* (hon-nee-wah) clay burial figures, and paintings like historical scrolls and screens. There are many types of Japanese music including religious, military, popular and court music.
The focus of this lesson is the kakko (kah-koh), a small drum that is used mainly in court music known as gagaku (gah-gah-koo) or “elegant music.” This type of music was officially recognized as imperial by rulers in 703 A.D. and flowered during the four centuries of the Heian Period (781-1192). Its tradition has continued without interruption since 1150 A.D. This music has continuously been supported by the imperial court, its performers have a hereditary line back to the original performers, and the musical pieces being performed have remained the same though new compositions are added by today’s composers. Gagaku is designed to be performed at a court or shrine for several different kinds of occasions, including moral or religious events, the enthroning of an emperor, imperial marriages, and the completion of temples. At its introduction into Japanese culture in the 600s, it represented a new international style that flourished when the music of China, Korea, Manchuria and India all could be heard in the highest courts in Japan.

Gagaku is divided into “Music of the Right” of komagaku (koh-mah-gah-ku), music of Korean origin, and “Music of the Left” or togaku (toe-gah-ku), music of Chinese origin. Togaku can be performed with dance accompaniment called bugaku (boo-ga-ku) or as instrumental music called kangen (kan-gen). A typical seating of the percussion section is in front of the gagaku orchestra, opposite that of the American orchestra where the percussion section is in the back. This highlights the fact that percussion instruments control the rhythmic pace and that the kakko performer is the conductor or leader of this ensemble.

Seating chart for the Gagaku orchestra:

<table>
<thead>
<tr>
<th>Wind instruments</th>
<th>Flutes</th>
<th>Oboes</th>
<th>Mouth Organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>String instruments</td>
<td></td>
<td>Zithers</td>
<td>Lutes</td>
</tr>
<tr>
<td>Percussion instruments</td>
<td>Shiko-gong</td>
<td>Taiko-drum</td>
<td>Kakko-drum</td>
</tr>
</tbody>
</table>

Audience

**Musical Instruments & Rhythms**

**Instruments:** The kakko is a cylindrical or barrel-shaped drum with two over-sized hoop drumheads laced on each end. The drumheads are lapped onto an iron ring before they are laced onto the drum. The black lacing strings are for tuning the drumhead and are made from horsehide. The body of the drum is about 12 inches long and 6 inches in diameter but the head is 9 inches in diameter so that the drumhead can easily be laced on to the body. The drum sits on a stand in front of the performer with the lacing touching the stand and the drum is struck with two thin sticks with a slightly bulbous tip. The drum is played with light strokes and sharp loud strokes with either the right or left hand or both at nearly the same time.

Since its introduction into Japan from China in the 700s, the kakko has gradually become the leading rhythm instrument in togaku. The name kakko is written with the same Chinese characters as the Korean kalgo (kol-goh), but there does not seem to be a historical connection. Pronounced jiegu (gee-gu) in Chinese, the characters have referred to a variety of drums. On occasion the kakko drum is also used as a substitute for other drums like the hourglass drum, ikko (ee-koh), and in that case will use only one stick. It is also sometimes used in geza, a type of off-stage music in kabuki theater to set a mood at the imperial court.
There are many types of musical instruments in Japan and several of these are used in tōgaku music. The wind instruments include the fue (fueh), a flute, the hichiriki (heh-che-ree-key), an oboe, and the shō (show), a mouth organ. String instruments in tōgaku include the koto (koh-toh), a board zither and the biwa (bee-wah), a plucked lute. There are three percussion instruments in tōgaku that together keep the rhythm: the shōko, a small gong, the taiko, a large double-headed drum and the kakko, the drum that conducts the tōgaku ensemble.

Rhythms: Gagaku music has three rhythmic sections: Jo (joe), a slow or free rhythm, Ha (hah) the establishment of rhythm, and Kyū (key-you), which accelerates to a climax, then returns to Jo. Each rhythm of tōgaku is maintained in this form by the three percussion instruments: kakko, shōko, and the taiko. The shōko often follows the taiko rhythm but the taiko provides the main strong stroke of the rhythmic pattern of tōgaku music. The kakko player is considered the rhythmic conductor of the orchestra, controlling slight changes in tempo Gagaku rhythmic theory is based on eight, four, and two counts. There are also variations with mixed counts like two plus four called tada-byōshi (tah-dah bee-yoh-she), and two plus three called yatara-byōshi (yah-tah-rah bee-yoh-she); the latter is shown in the Resources section below. Japanese rhythms are mostly learned by rote but they are also notated on a tablature that includes black dots.

Measured counts in Gagaku are in three types of rhythms based on 8 beats or nobeyoshi (noh-bee-yoh-she), 4 beats or hayabyoshi (hah-yah-bee-yoh-she) and 2 beats or osebyoshi (oh-she-bee-yoh-she). In addition to these measured counts, the kakko plays three patterns that establish a type of free rhythm, that is, without measured counts. The first rhythmic pattern called sei (say) has a single hit on the drum with the right hand followed by a long space. The second type of rhythm is mororai (moh-roh-rye), a steady, fast beat or “roll” with rapid alternating right/left motions that accelerate very slightly. A third rhythm, katarai (kah-tah-rye), might be described as a ‘bouncing ball’ rhythm, the sound of a rubber ball dropped on a hard floor. This unusual rhythm that gradually accelerates is played with the left hand and is reserved for the kakko in its role as rhythmic leader.

Listen & Play Along: *Use Roots of Rhythm CD Notes to support this section.

Note to teachers: if instruments are not readily available, consider having students make their own (a general activity for making drums can be found in the Roots of Rhythm: Introduction section, and a specific kakko-making activity is described below) or encourage them to improvise — using everyday items such as buckets, containers, phone books, desk tops, etc., as instruments. Rhythms can also be created with body percussion including hand clapping, foot tapping, finger snapping, etc.

Listen to Track 50 of the Roots of Rhythm Companion CD to hear the sound of the kakko. Now it’s time to play along. If you don’t have these instruments, use some instruments from your music classroom as substitutes for the Japanese percussion section. Use a cymbal for the shōko, a large tom-tom for the taiko, and bongos played with thin sticks for the kakko. Or, see below for directions for creating a homemade kakko drum.

Listen to Tracks 51-57 of the Roots of Rhythm Companion CD and play along with the rhythms. Listen to the CD again and practice some of the rhythms, especially the fast steady beats and the bouncing ball rhythm. Bounce a small rubber ball and listen to the rhythm as it bounces, then
compare it to the *katarai* pattern on the CD. Now try to play the rhythms heard on the CD and shown in the Resources section.

**Making A Homemade Kakko:** You can make a homemade *kakko* with the following items: a large coffee can, PVC packaging tape, strapping tape, two chopsticks, two embroidery hoops, a cardboard box, scissors, and a can opener. Make the instrument by following these steps, and then compare the sound of your homemade *kakko* to the one on the CD. Tighten your drum if needed.

Steps:
1. Take lids off can, clean it
2. Loosely stretch PVC tape across hoops
3. Pull strapping tape in “W” pattern on hoops over top of head tightly
4. Tape ball on chopsticks

**Kakko and Performers:**

Reigakusha Gagaku Group. Photographs from Yasuhiro Kakigahara.
**Resources: The Tōgaku Percussion Section with Kakko Rhythms**

*Taiko* (large drum)

*Shōko* (gong)

*Kakko*

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**Kakko Free Rhythms for the Tōgaku Orchestra**

1. **Sei**
   (one hit with right, space)

2. **Mororai**
   (fast steady roll, both)

3. **Katarai**
   (bouncing ball rhythm)

4. **Yatara-byōshi**
   (2+3 patterns)

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**Measured Rhythms in the Tōgaku Percussion Section**

<table>
<thead>
<tr>
<th>Count</th>
<th>1</th>
<th>2</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>1</th>
<th>2</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shōko</strong></td>
<td></td>
<td></td>
<td>Ir</td>
<td>Ir</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Kakko</strong></td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Taiko</strong></td>
<td></td>
<td></td>
<td>R</td>
<td>L</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Notes:
- Ir – double hits per count
- R or L – single hits
- R in bold is louder

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Please note:
1. The dot size is the loudness, the bigger the dot the louder the drum stroke: ● ● ●
2. The distance between dots is the rhythm.
3. On the *taiko*, the left hand is considered a “female” or softer stroke and the right hand a “male” or harder stroke.