

Study Guide

Todd Green



Table of Contents

About the Artist

Todd Green 2

Before the Show

Vocabulary 2

Character Corner 2

Internet Ideas 2

Make Your Own

Instruments 3

Todd's Inspirational Story for Children 4

After the Show

Classroom Activities 5

Making Sound—How it Works

Strings 6

Flutes 8

Drums 9

Activities

Games 11

Draw Your Own 12

For the Teacher

Books to Explore 13

Answers & Solutions 13

Todd Green is a uniquely talented multi-instrumentalist who performs nationally in the fine arts and college markets. His all original music is influenced by cultures all around the world. In addition to his concert performances, Todd hosts clinics for school children of all ages, in which he demonstrates many musical styles and playing techniques on the following instruments:

STRINGS

Double-Neck Guitar
Sympitar
Indian Sarangi
Arabic Oud & Yali
Tambur
Persian Tar &
Kemencheh
Afghan Rubab
Chinese Er-Hu & Pipa
So. American Charango

FLUTES

Indian Bansuri Flutes
& Satara
Turkish Ney
Siberian Kalyuka
Bolivian Zamponias
So. American Quena &
Ocarina

PERCUSSION

Indian Tablas & Kanjira
Egyptian Riq
Arabic Doumbek
Middle Eastern Frame
Drums
Persian Tombak & Daf
Tibetan Bowl
Spring Drum
Brazilian Berimbau
So. American Bombo

About the Artist

Todd Green studied composition, arrangement and performance at **Berklee College of Music** and privately with **Mark Goodrich**, jazz guitar legend at New England Conservatory of Music, **Pat Metheny**, Grammy Award winning guitarist, and **George Benson**, international recording star. He has also taken master classes and work shops with guitar greats such as **Christopher Parkening**. Todd's 25 year professional career includes eight years in new York City, where he studied Indian Tabla drums and Bansuri flute with **Steve Gorn**, and performed with the top echelon of studio musicians and toured extensively with bands throughout the United States, Canada and Europe. He has toured as a solo artist since 1992 and continues to develop his music his music and playing techniques through interaction with musicians who have come from many different countries to live in the San Francisco Bay Area.

Before the Show . . .

- ☞ Visit Todd Green's website to see some of the musical instruments he will be playing during the clinic.
- ☞ Familiarize students with the vocabulary words in the vocabulary segment of this guide.
- ☞ Read Todd Green's Inspirational Story for Children for grades K-5.

Vocabulary . . .

multi-instrumentalist – a musician who plays many different instruments

composing – writing your own music

Tablas – two drums from India that are played together at the same time, one with each hand

Bansuri flute – a bamboo flute from India

Character Corner . . .

Todd Green is an excellent example of **Self-Motivation**. Read his inspirational story to students (K-5) and discuss with your students how they can show self-motivation in their own lives. Teach students how to set attainable goals by making an action plan. Discuss how Todd feels about practicing his musical instruments. Ask students how motivating themselves to practice can help them reach their goals.

Internet Ideas . . .

Visit the artist at:

www.toddgreen.com

Todd Green's web site contains instrument info, quotes about music, music samples and links to other super web sites.

Make Your Own Instruments . .

Juice Can Shaker

You will need a small, empty metal juice can. The kind that you open by pulling off a tab. Not the kind in the frozen food section. For a larger shaker, you can use a soft drink can. Whichever can you choose, be sure to rinse it out well with water several times so there is no sticky drink left inside. Let it dry upside down on a dish rack for at least a day. It is important that it is completely dry inside. Pour a teaspoon of uncooked rice inside along with a few beans or lentils if you have some. Cover the hole with a small piece of paper and tape it in place.

Decorating your shaker is also an option. You can cover it with pretty wrapping paper or make your own original design with paper, markers and crayons. To keep the design from rubbing off on your hands, you can cover it with see-through packing tape.

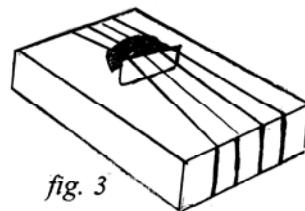
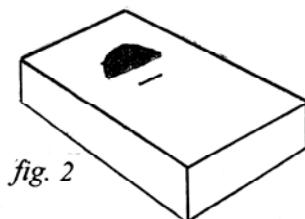
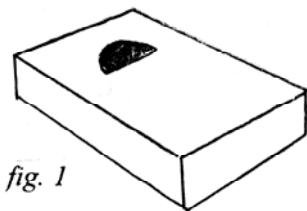
Egg Shaker

For a softer sound than the metal can, use a plastic Easter egg and rice. Pour a teaspoon of rice in one side of the egg and glue the pieces together in the middle.

Box Banjo

Ask your mom or dad for a sturdy (empty) box that is not more than two inches deep. Small size boxes for mashed potatoes, dried milk or detergent that have a pouring spout on the side work best. Lay the box down flat on its widest surface and ask a grown-up to cut out a semi-circular sound hole (fig. 1) and a one inch slit about an inch away from the hole (fig. 2).

To make a bridge, cut a two inch square out of heavy cardboard. On the edges of the two inch square piece of cardboard, cut away half inch squares so the original piece is now T-shaped (fig. 3). Fit the bridge into the slit and string your banjo with 4 rubber bands of different sizes. The smaller ones will stretch more and play higher notes. Pluck them gently with your fingers.



Todd Green's Inspirational Story For Children . . .

Todd Green is a multi-instrumentalist a musician who play many different instruments. Because he plays so many instruments from so many countries, you could even say that he is a multicultural multi-instrumentalist. Try to say that fast three times!

If you visit Todd's home page on the Internet at www.toddgreen.com you can see photos of all the instruments he plays and read about where they all come from.

Todd plays concerts all over the United States and Canada, and often visits schools to demonstrate many of his instruments to students of all ages. Todd has been a professional musician for over 25 years.

This is the story of how it all happened . . .

Todd started to play his first instrument when he was 8 years old. He wanted to play the drums, but his mom thought that they would make too much noise in their house, so she said no. Todd decided to play the guitar instead. Today, he is really happy he did. The classical guitar is his favorite instrument.

When Todd was a teenager, he started playing the electric guitar too. Soon he started his own rock band. They played at parties around Clinton, Connecticut, where Todd grew up. Todd was very good at sports in school and always thought it was easier to play football than the guitar.

But by the time he finished high school, he felt in his heart that he really wanted to become a musician, even though it would take a lot of hard work on his part. He decided to go to the Berklee College of Music in Boston.

At Berklee, Todd studied composition and performance. In addition to classes at college, he also took many private lessons after school. He was lucky to have excellent teachers who taught him how to play jazz music on the guitar.

The special thing about playing jazz is that you have to improvise. To improvise means to make up your own music right on the spot as you are playing it. This takes a lot of practice in order to perform well.

After Berklee College of Music, Todd moved to New York City and played in different jazz bands. There are many, many really good musicians in New York, so Todd got better and better as he had a chance to play music with them. He was able to learn from everybody. Todd got really good at improvisation and uses it a lot in his performances today.

While Todd was in New York, he decided to learn to play drums, too. He really liked the sound of the Tablas. Tablas are Indian drums in sets of two that are played together at the same time, one with each hand. These are probably the hardest drums to learn. You have to play very fast with many different hand movements and rhythms. Todd was lucky to find a really good Tabla teacher to learn from. The Tablas are still his favorite drums to play. After a while, he started to learn to play the Bansuri flute, a bamboo flute from India. He studied the Bansuri flute with Steve Gorn, who is the best American Bansuri flute player. He also took lessons on the orchestral flute, which is the regular silver flute you see in bands and orchestras.

After about 10 years in New York, Todd decided to move to Bozeman, Montana. Todd chose Montana because it is a very beautiful place where he could go on long bike rides in the mountains. His bike rides made him think of many beautiful songs that he

could write for the classical guitar. He has now composed over 100 songs. Another instrument Todd took lessons on is the cello. This was the first instrument Todd learned that is played with a bow.

Many years ago, if you wanted to play instruments or music from other countries, the only way to do it was to travel to those countries yourself to listen to the musicians and buy the instruments. But today, there are many big music stores in large cities right here in the United States that sell instruments from every part of the world. You can buy CDs with really good musicians from all over the world. Todd has over 1000 CDs with accomplished musicians from almost every culture in the world. So when he hears a new instrument that he really likes the sound of, he buys CDs so he can learn to play it.

He then figures out how to play it by watching videos on YouTube with good musicians who play the new instrument. By listening and watching, Todd can teach himself how to play. Of course, the reason he can do this is because he spent many years learning to play the guitar, the Tabla drums, the flutes and the cello. Knowing how to play these other instruments really well helps him to learn how to play the new instruments.

Todd also spends a lot of time practicing. When he is not traveling, he practices 14 hour every day, except Sunday. He gets up at 3 o'clock in the morning, so he can do lots of practicing before everybody else gets up and starts calling him on the phone! This might sound like a really hard life, but Todd loves to play music. He thinks he is really lucky to be able to spend all his time doing what he loves most in the whole world. So on the mornings when he is really tired and doesn't feel like getting up, he remembers all the people who buy tickets to his concerts that are counting on him to play really well. That makes him want to get out of bed every time!

Todd hopes that his story will help you know that you can become just about anything you want. First, you figure out what you really love doing (you might have to try a few different things to make sure) and then you work hard at getting really good at it. If you decide to play an instrument, Todd wants you to know that it is very important to practice every day, so your fingers don't have a chance to forget what you learned the last time you played. It is better to practice 10 minutes every day than one whole hour once a week. No matter what you decide to do, Todd hopes you will follow your dreams and work hard at reaching them.

After the Show . . .

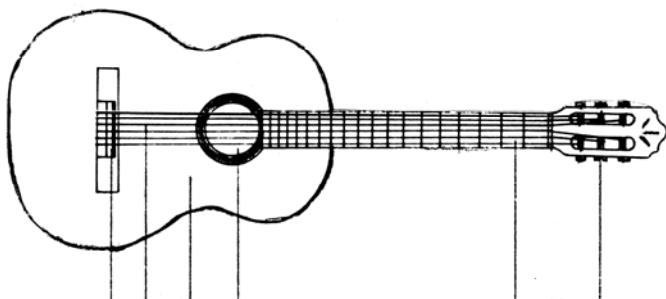
- ☞ Visit Todd Green's web site to write him an email. Tell him what parts of the show you like the most or ask him a question.
- ☞ Experiment with sounds by making your own instruments
- ☞ Use Todd Green's web site to explore some of your favorite instruments and draw pictures of them.

How Instruments Make Their Sounds

String Instruments

In string instruments, the sound is made by the vibration of the strings. The strings can be made to vibrate either by plucking them with your fingers (guitar, banjo), playing them with a bow (violin, cello) and even by striking them with little hammers (dulcimer). The first simple string instruments were built over 5000 years ago. Their strings were made out of animal hair, gut or silk, but these days, most strings are made from nylon (like fishing line) or steel.

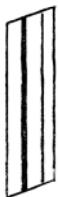
All stringed instruments need a hollow box of some kind over which the strings are attached across a bridge. This is called a sound box or resonator, and it amplifies the sound (makes it louder) so even people sitting across the room can hear it well. As the string vibrates when you play it, the vibration is carried by the bridge into the sound box, where the air starts to vibrate too. There is always a sound hole in the sound box, where this vibrating air can escape and make the air in the room vibrate, so your ears can hear the note. The faster the string vibrates, the faster the air vibrates and the higher the note is that your ears hear. This is called pitch.



1. Bridge
2. Strings
3. Body (Sound box)
4. Sound hole
5. Fingerboard
6. Peg

This is how you get the notes you want on string instruments. There are three ways to change the pitch:

String Weight
Light string gives
higher note



A heavy string gives a
deeper note than a light
string of the same length.

String Length
Finger shortens string
for higher note



The pitch of a stretched
string becomes higher
as it is shortened.

String Tension
Increasing tension of
string raises pitch



A tighter string gives a
higher note than a looser
string of the same length.

Here is how it works if you look at the actual string instruments.

String Weight

You will notice that the bass (deeper note) strings are thicker than the treble (higher note) strings.

String Length

On a violin or cello, you will see a fingerboard underneath the strings that the musician's fingers can press the strings against to get a higher note. Through practice, the musician learns exactly where to press for each note to sound just right. On a guitar, this is made easier by having metal frets in the right places on the fingerboard for the fingers to press against.

String Tension

Most string instruments have tuning pegs that one end of the string is wound around. When you turn the tuning peg, the string is either loosened (for lower pitch) or tightened (for higher pitch). The note that a string makes when it is "open" (no fingers pressing on it) has to be perfectly "in pitch" (sound exactly right), or all the other notes you play on it will be wrong too. To make sure of this before you start playing is called "tuning" the instrument. The musician does this by striking a "tuning fork" against something to make it vibrate with just the right note and then turns the peg until the string makes the same note.

Let's see what you remember:

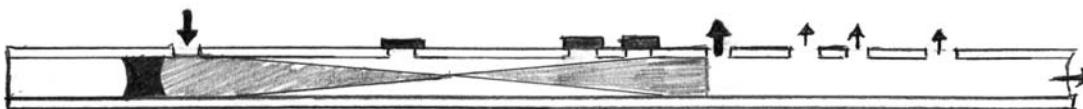
1. A string makes a sound when it vibrates keeps perfectly still.
2. Which makes the higher note of two strings of the same length and tension?
 the thicker string the thinner string
3. Which makes the higher note of two strings of the same thickness and tension?
 the shorter string the longer string
4. Which makes the higher note of two strings of the same thickness and length?
 the tighter one the looser one
5. Why does a string instrument need a sound box or resonator?
 to shut the sound in to amplify or make the sound of the strings louder
6. Why is it important to press your finger down at exactly the right place on a string when you play a string instrument?
 It makes the string exactly the right length so it makes the note you want.
 It makes the string thicker.
7. What happens when you turn a tuning peg?
 It makes the string shorter or longer.
 It makes the string tighter or looser.

Flutes

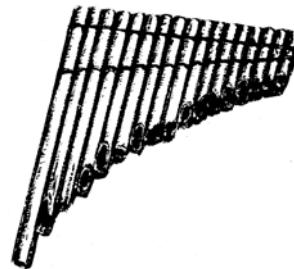
Flutes are part of a large group of instruments called aerophones. The sound is produced in these instruments by the vibration of air. Flutes have two kinds of openings to blow into: a blow hole or a whistle mouthpiece. As the air is blown in, it is directed against a sharp edge of the flute, which makes the air vibrate. The vibration is greatest at the mouthpiece and at the other end of the tube and slow down to zero at the center of what is called the air column.



The length of the air column decides the pitch or the note. Shortening the air column raises the pitch. This can be done by uncovering holes in the flute. When all the holes are covered on a flute, either directly by the fingers on wooden flutes or by pressing on keys and pads on a metal concert flute, the length of the air column equals the length of the flute. When a hole is uncovered, the air passes out there and the air column is shortened – it now reaches from the mouthpiece to the uncovered hole.



Another way to get notes of different pitch is the one used in the South American “Siku” panflute. Instead of one reed with holes that can be covered or uncovered by the fingers, the Siku has a separate reed for each note. The reeds are cut to just the right length to make each note the right pitch and are tied together so they form a scale. The shortest reed plays the highest note and the longest reed, the lowest note. The musician moves the Siku to the left and right so his mouth blows the air over the opening of the reed that has the note he wants.



There are different ways of holding a flute as you blow into it. The Orchestral flute and some bamboo flutes such as the Bansuri flutes from India are called side-blown – you hold them straight out to the right of your face as you play them. The Japanese Shakuhachi and the recorder are examples of so called en-blown flutes – you hold them straight down the front of your body and blow into the very end of them. There are even flutes you hold up to one of your nostrils, so called nose-blown flutes (Todd doesn't play any of those!)

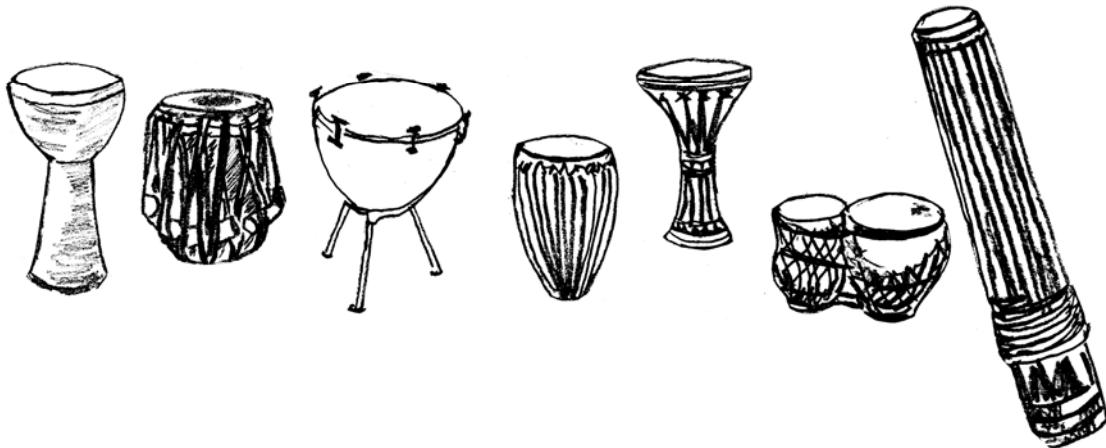
Some flutes have more than one air chamber – like two flutes tied together. One of them has no holes – it plays the same note, a so called “droning” note, the whole time. This makes a very different, but beautiful sound that is very popular in the Middle East. Todd's web site has two of these, the Egyptian Argul and the Armenian Dvoyanka.

Let's see what you remember:

1. When all the holes are covered, you get the highest note from
() the shorter flute () the longer flute.
8. You get a higher note when your fingers
() cover all the holes () leave a hole open.

Drums

A fancy name for drums is membranophones, because the sound is made by the vibration of a stretched membrane. This membrane or skin (and it is usually made of animal skin of some kind) is stretched over the opening of the hollow body of the drum. This body can have many different shapes and sizes and be made of either wood, clay or metal. Drums have been around for at least 4000 years and are popular instruments in every culture.



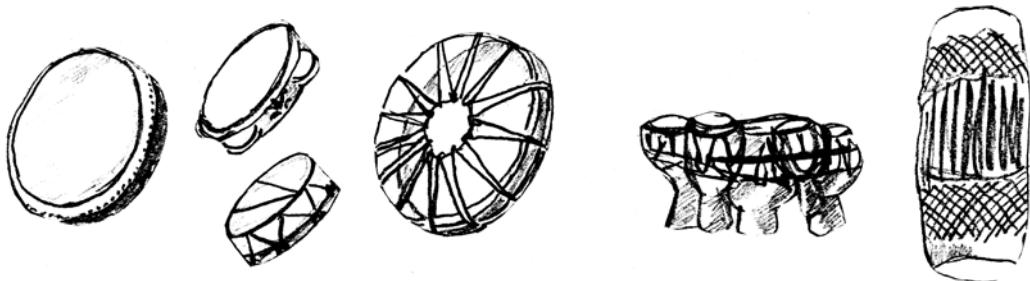
The sound is made by vibrating the skin or playing the head of the drum. This can be done by beating it directly with the hands or with sticks, padded beaters or wire brushes.

The pitch of the drum can be changed by tightening or loosening the lacing or clamps that stretch the skin over the opening in the body. Tightening the skin of the drum head makes a higher note. The size of the head also makes a difference. If the tightness is the same, a smaller head makes a higher note than a bigger head.

Do you see a similarity with string instruments? A bigger, looser head makes a lower note, just like a thicker, looser string. A smaller, tighter head makes a higher note, just like a thinner, tighter string. There are more similarities. The body of the drum amplifies (makes louder) the sound that is created by the vibrating head, just like the sound box or resonator of a string instrument amplifies the sound made by the strings. The bigger the body of the drum, the louder it sounds. But there is one more thing: on most drums, the body is open opposite the head so the sound can get out easily. Some drums are closed

off, so there is no other opening in the body than the one the skin is stretched over. These drums make a quieter, muffled sound.

A very popular kind of drum around the world is the frame drum. What makes it different from other drums is that the head is larger than the body, which gives it a “pancake” shape. These come in many different sizes. Again, the bigger the head, the lower the pitch of the note it makes. On frame drums, one can easily change the pitch while playing. Pushing on the skin with the hand that is holding the frame drum stretches the skin and makes the note higher. Frame drums can also have different kinds of jingles on them, like a tambourine.



Drums can even have two or more heads, usually of different sizes so they play different notes. There are even drums without a skin head. The East Indian Ghattam drum is made of clay and has two open holes that the musician cups his hand over when playing it.

Let's see what you remember:

1. The head of the drum is usually made of
 wood, clay or metal animal skin.
2. You get a higher note from a smaller, tighter head a larger, looser head.
3. A frame drum has
 a big body and a small head a head larger than the body.
3. Stretching the skin on a frame drum with your hand while playing it makes the note higher lower.

Games

How many of these words can you find in the puzzle? Circle each word in the puzzle as you find it and cross it off this list:

| | | | | | |
|--------|-------|--------|--------|--------|------|
| BASS | BEAT | BELL | BOW | CAPO | CD |
| CELLO | DRUM | FLUTE | GONG | GUITAR | HEAR |
| MUSIC | PLUCK | REBAB | RHYTHM | SAZ | SIKU |
| STRING | UDU | VAHILA | ZARB | | |

The words are written in all eight directions:



The same letter can be used in more than one word. Good luck!

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| U | K | I | S | F | W | G | O | N | G |
| X | R | G | L | K | N | J | C | W | A |
| T | M | U | S | I | C | B | E | L | L |
| A | T | I | R | D | A | U | L | C | I |
| E | U | T | A | B | R | I | L | A | H |
| B | S | A | E | U | D | U | O | P | A |
| O | A | R | H | Y | T | H | M | O | V |
| W | Z | A | R | B | A | S | S | X | J |

Can you match up each letter with the number of the right answer? Connect them with lines.

- | | |
|--------------------------------------|-------------------|
| A) bamboo flute from India | 1) Frame Drum |
| B) drum without a skin | 2) Er-Hu |
| C) pancake-shaped drum | 3) guitar |
| D) looks like a bow and arrow | 4) Bansuri |
| E) has snake skin and only 2 strings | 5) Siku, Zamponia |
| F) panpipe from South America | 6) Kalyuka |
| G) Siberian flute without holes | 7) Ghattam, Udu |
| H) has 6 strings and frets | 8) Berimbau |

Why don't you draw a drum that you would like to play. You can make up your own shape and colors and give it your own name if you want.

For The Teacher Wonderful Books To Explore

Show-Me-How I Can Make Music

(Simple-to-make and fun-to-play musical instruments for young children)
by Michael Purton. Southmark Publishers ISBN 0-8317-7264-6

Make Your Own Musical Instruments

By Muriel Mandell & Robert E. Wood
Sterling Publishing Co., Inc. ISBN 0-8069-7658-6

Eyewitness Books MUSIC

(Discover how music is made in close-up – from the most primitive to the most modern instruments)

A Dorling Kindersley Book
Published by Alfred A. Knopf, Inc. New York ISBN 0-394-82259-5

Musical Instruments of The World

(An illustrated encyclopedia with more than 4000 original drawings)
Diagram Group
Sterling Publishing Co., Inc. New York ISBN 0-8069-9847-4

Correct Answers and Game Solutions

Strings

1, 2, 1, 1, 2, 1, 2

Flutes

1, 2

Drums

2, 1, 2, 1

Match Descriptions with Instruments

A4, B7, C1, D8, E2, F5, G6, H3

Puzzle

