



**Science, Engineering,
Technology & Math**

*Kendama + Yo Yo +
Hacky Sack = Fun*

(Think of this as the “title page” and photos about the class here)

What do you see?

Class Structure

Week #1: The Kendama

- What is a Kendama?
- History of the Kendama
- Kendama Basics
- Kendama Tricks
- Kendama Careers & Contests

Week #2: The YoYo

- What is a Yo-Yo?
- History of the Yo-Yo
- Yo-Yo Basics
- Yo-Yo Tricks
- Yo-To Careers & Contests

Week #3: The Hacky Sack

- What is a Hacky Sack?
- History of a Hacky Sack
- Hacky Sack Basics
- Hacky Sack Tricks
- Hacky Sack Careers & Contests

Week #4: The Art of Juggling

- What is the art of Juggling?
- History of Juggling
- Juggling basics
- Juggling Tricks
- Juggling Careers & Contests

Week #1: The Kendama





A Kendama is a traditional Japanese toy.

The ken has three cups and a spike which fits into the hole in the ball.

Kendama bears similarities to the classic cup-and-ball game, and the Hispanic world toy known as boliche or balero.

The principle of these toys are the same: catching one object with another, where both are joined by a string. However the modern kendama style takes influences from a diverse range of skills including yo-yo, diabolo, juggling and dance.

What is a Kendama?

Kendama Tricks



Kendama Basics



Kendama Basics





Kendama Basics



Kendama Basics



Kendama
<https://www.youtube.com/watch?v=KGgAztwAMRk&nohtml5=False>Competitions



Kendama Players



Week #2: The Yo-Yo





A Yo-Yo is a toy consisting of a pair of joined discs with a deep groove between them in which string is attached and wound, which can be spun alternately downward and upward by its weight and momentum as the string unwinds and rewinds.

What is a Yo-Yo?



Duncan was not the inventor of the yoyo; they have been around for over twenty-five hundred years. In fact the yoyo or yo-yo is considered the second oldest [toy](#) in history, the oldest being the doll. In ancient Greece, the toy was made of wood, metal and terra cotta. The Greeks decorated the two halves of the yoyo with pictures of their gods. As a right of passage into adulthood Greek children often gave up their toys and placed them on the family altar to pay homage.

Around 1800, the yoyo moved into Europe from the Orient. The British called the yoyo the bandalore, quiz or the Prince of Wales toy.

History of the Yo-Yo...Part 1



The French used the name *incroyable* or *l'emigrette*. However, it is a Tagalog word, the [native language](#) of the Philippines, and means "come back". In the Philippines, the yoyo was used as a weapon for over 400 hundred years. Their version was large with sharp edges and studs and attached to thick twenty-foot ropes for flinging at enemies or prey.

Pedro Flores

People in the United States started playing with the British *bandalore* or yoyo in the 1860s. It was not until the 1920s that Americans first heard the word yoyo. [Pedro Flores](#), a Philippine immigrant, began manufacturing a toy labeled with that name. Flores became the first person to mass-produce toy yoyos, at his small toy factory located in California.

History of the Yo-Yo...Part 2

Donald Duncan

Duncan saw the Flores toy, liked it, bought the rights from Flores in 1929, and then trademarked the name Yo-Yo. Duncan's first contribution to yoyo technology was the slip string, consisting of a sliding loop around the axle instead of a knot. With this revolutionary improvement, the yoyo could do a trick called "sleep" for the first time. The original shape, first introduced to the United States was the imperial or standard shape. Duncan introduced the butterfly shape, a design that reverses the halves of a traditional imperial yoyo. The butterfly allowed the player to catch the yoyo on the string easily, good for certain tricks.

Donald Duncan also worked out a deal with the newspaper tycoon William Randolph Hearst to get free advertising in Hearst's newspapers. In exchange, Duncan held competitions and the entrants were required to bring a quantity of new subscriptions for the newspaper as their entry fee.

The first Duncan Yo-Yo was the O-Boy Yo-Yo Top, the toy with a big kick for all ages. Duncan's massive factory produced 3,600 of the toys every hour making the factory's hometown of Luck, Wisconsin the YoYo Capital of the World.

History of the Yo-Yo...Part 3

Duncan's early media blitzes were so successful that in Philadelphia alone, three million units sold during a month-long campaign in 1931. In general, yoyo sales went up and down as often as the toy. One story tells how after a market dip in the 1930's the [Lego](#) company was stuck with a huge inventory, they salvaged the unsold toys by sawing each yoyo in half, using them as wheels on toy trucks and cars.

Yoyo sales reached its highest peak in 1962, when Duncan Yo-Yo sold 45 million units. Unfortunately, this 1962 hike in sales led to the end of Donald Duncan's Company. Advertising and production costs far outstripped even the sudden increase in sales revenues. Since 1936, Duncan experimented with [parking meters](#) as a sideline. Over the years, the parking meter division grew to become Duncan's main moneymaker. This and bankruptcy made it easier for Duncan to finally cut the strings and sell his interest in the yoyo. The Flambeau Plastic Company bought the name Duncan and all the company's trademarks, they began producing their line of all plastic yoyos soon after. The yoyo continues today, its latest honor is being the first toy in outer space.

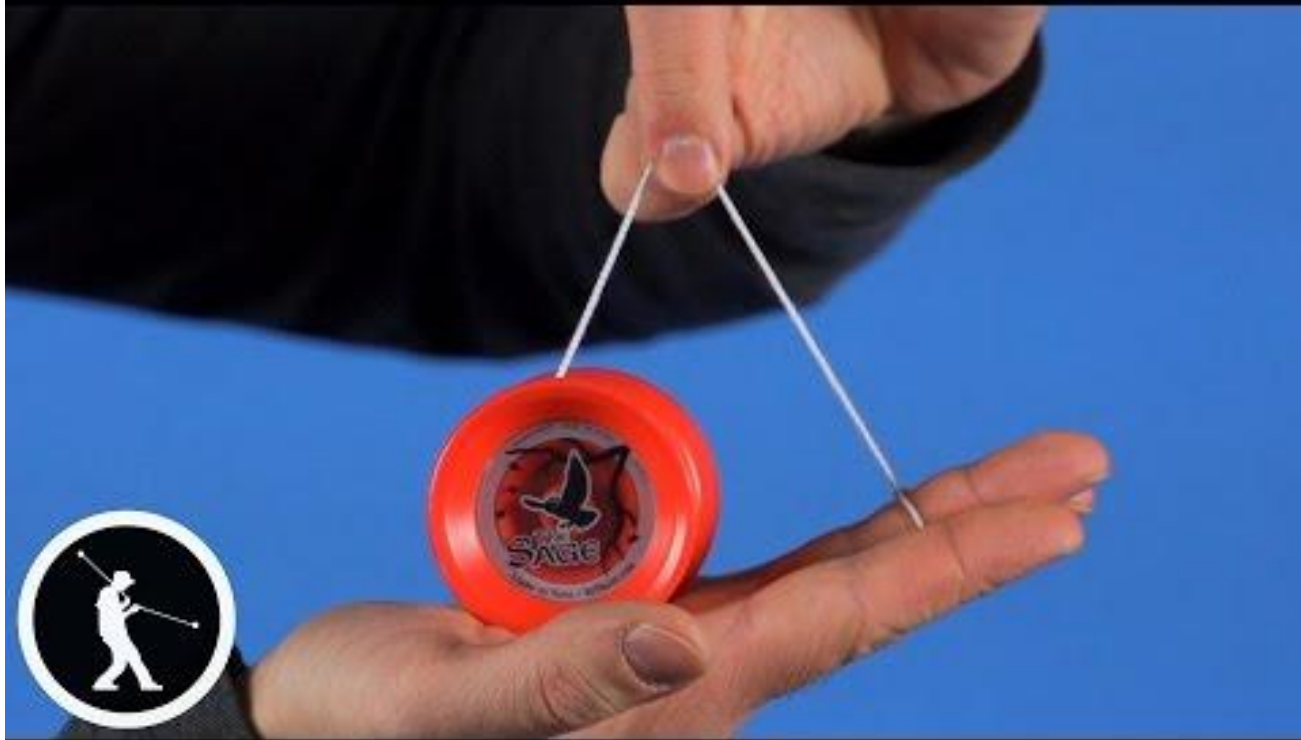
History of the Yo-Yo...Part 4



History of Yo Yo



Yo Yo 101





**Women's
YoYo
World
Champion**



2015 U.S. National Yo-Yo Contest



Yo Yo Careers

Yo Yo Basics





Yo Yo Bind Theory

Week #3

The Hacky Sack

Week #4:

Juggling

Enter photo here

Creative Challenge:

(Write one challenge for the week/class here. Duplicate this slide for each class or week. Identify ONE

challenge for each class or week)

*(Enter photo/videos of student work here.
Duplicate this slide as needed)*

(Enter photo/videos of student work here)

Materials & Supplies

- *(enter your class materials and supplies here)*
-

Pro Tips by Liz Rich

- *(Enter your pro teaching tips here...see examples below)*
- Show video clips at the beginning of each class period
- Take video and photos of the kiddos throughout the class and add it to the presentation.
- Give kiddos a SMALL piece of paper so they can finish the project. As the class continues, gradually increase the size of paper.
-

Resources:

- <https://www.youtube.com/watch?v=poaZgqeks2s>
- <https://www.youtube.com/watch?v=U1rRb3973aQ&spfreload=5>
- https://www.youtube.com/watch?v=2EYwz8_n7-o&nohtml5=False
- <https://www.youtube.com/watch?v=uwDTRrgO21M&nohtml5=False>
- <https://www.youtube.com/watch?v=KJGdboxjbJo&nohtml5=False>
- https://www.youtube.com/watch?v=AouDycr8G58&ebc=ANyPxKpz6lISSj0p56RsMNyg1m1Zjd9D7cRLB3NnYMzuxc3na4c27JQku9bW0_UuyPhOc7F2GC3Z_Yod9LhCWoj45Qmpl_GiVg&nohtml5=False
- <https://www.youtube.com/watch?v=2ldYEUSSUS8&nohtml5=False>
- <https://www.youtube.com/watch?v=KDiioSreoPc&nohtml5=False>
- <https://www.youtube.com/watch?v=iU8DkyHKz6l&nohtml5=False>
- <https://www.youtube.com/watch?v=nUb-3b-3QUM&nohtml5=False>
- https://docs.google.com/presentation/d/16Bn8SwVCR9mqkZAY3XspbEmHCio03HGIEyLx4zd3ajq/edit#slide=id.g12a77389e4_0_66
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