

PHYSICAL EDUCATION
SPIN TOP TEACHER'S GUIDE
By Dale Oliver
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For advanced, use *Spinology* Instructional DVD
See spin top videos at scienceofspin.com

This manual contains ideas and teaching tips and specifies levels of accomplishment that can be expected of students at their grade level.

It is not necessary for you as the instructor to master all of the tricks. The Spinology video will teach the students all of the skills and steps necessary to perform the tricks, while you, as coach, observe their attempts, correct their mistakes and keep them on task. **The video shows the tricks being done by spinning the tops with the string. Most of them can be done using the Power Spinner for your classes.**

SAFETY IS IMPORTANT! Start each lesson with the safety rules.

SPINNING THE TOP. Only use the Power Spinner to spin the top. (At the discretion of the PE teacher, this rule could be suspended for individuals in upper grades whose skill levels warrant. We will cover these tricks later in the guide.

NO TOSSING THE TOP OVER THE HEIGHT OF YOUR HEAD.

Skill building is learning by doing. So join in, learn with the kids and have fun!

Total video running time is 75 minutes First half is yo-yo, second half is spinning top. Use the Yo For It! yo-yo teachers guide for yo-yo lessons.

BEGINNING TOP TRICKS

INTERMEDIATE TRICKS

Some use string after spinning top with Power Spinner

#1 Power Case Spin

#1 Knock Out

#2 Floor Spinner

#2 Walk the Dog (string)

#3 Saucer Pass

#3 Merry Go Round (string)

#4 Saucer Catch

4 Sky Rocket (string)

#5 Battle Top

#5 Zipper (string)

#6 Hand Spin

#6 Hacky Top, knee

#7 Partner Hand Spin

#7 Hacky Top, foot

#8 Big Scoop

#8 Arm Walker

#9 2 Hand Catch

ADVANCED TRICKS All with STRING after spinning top with Power Spinner

#1 Merry Go Round from Hand

#5 Mach 5

#2 Crazy Eights

#6 Gyroscopic Flop

#3 Subway

#7 Texas Cowboy

#4 Dive Bomber

#8 Roller Coaster

GOALS AND RECOMMENDATIONS

Beginners tricks should be done seated or on the knees. The goal of each class period will be to assist the majority of the children to master the tricks presented on that day. All children will enjoy some success, those who learn quickly will excel and be able to help teach their classmates. To keep these students challenged and interested, the Spinology video can be used to instruct them in more advanced tricks while you continue to coach the rest of the class. The higher the grade level, the more diversity in skill levels will occur.

After this period of direct instruction, Spinology, can be used as a station or elective activity.

Tests and/or competitions can be held at any level. Achievement certificates can be given or progress charts displayed. All these things encourage beneficial practice and individual accomplishment. Spinology teaches specific sets of tricks and Spintastics offers skill awards for mastery of each set of tricks in both yo-yo and top play.

GRADE LEVEL GOALS

These guidelines are for beginners. Those with prior experience will be able to advance further. Remember, for safety, the first 9 tricks should be done seated or on the knees.

KINDERGARTEN

First Day

#1 Power Case Spin
#2 Floor Spinner
#3 Saucer Pass

Second Day

Review and then
#4 Saucer Catch
#5 Battle Tops (PS)

FIRST GRADE

#1 Power Case Spin
#2 Floor Spinner
#3 Saucer Pass
#4 Saucer Catch

Review and then
#5 Battle Tops (PS)

SECOND GRADE

#1 Power Case Spin
#2 Floor Spinner
#3 Saucer Pass
#4 Saucer Catch
#5 Battle Tops (PS)

Review and then

#6 Hand Spin
#7 Partner Hand Spin

THIRD GRADE

- #1 Power Case Spin
- #2 Floor Spinner
- #3 Saucer Pass
- #4 Saucer Catch
- #5 Battle Tops (PS)

Second Day

- Review and then
- #6 Hand Spin
 - #7 Partner Hand Spin
 - #8 Big Scoop
 - #9 2 Hand Catch

FOURTH GRADE

First Day

The first 9 tricks

Second Day

Intermediate Tricks

FIFTH GRADE AND ABOVE

Individual ability and desire prevail.

Some fifth graders are capable of learning all of the tricks.

TOP PARTS

The Top: Cap – Body – Point – O-ring. **The Power Spinner:** Power Case – Power Strap. **The String:** String – Button

BEGINNING TOP TRICKS

#1 Power Case Spin (PS)

Start by teaching how to load the Power Strap into the Power Case. It helps to give the instructions in this way; “Pick up the Power Strap in the hand that you write with and put your thumb on the smooth side. Pick up the Power Case with the other hand and hold it with the peg side up. Insert the Power Strap into the slot on that side with the ‘teeth’ on the strap facing away from you. Holding the case with the non-dominant hand and not allowing those fingers to touch the strap, pull the Power Strap out quickly, keeping the Power Case still. Practice this until the case hand remains still. Then after reloading the strap into the case, put the square peg of the case into the square hole on the cap of the top. The strip should be loaded into the case BEFORE joining with the top. Pull the strap out of the case with a quick, smooth motion. The top will spin, upside down, on the case.

#2 Floor Spinner

From now on, the case is held with the peg down. Load the strap into the case and then place the top and case together. While holding the Power Spinner and the top together, place the point of the top onto the spinning surface. Then holding just the Power Case, palm down in the off hand (without touching the top or strap with that hand), pull the Power Strip out of the case in one quick motion and then simply lift the case off the top. You must not press down on the Power Case as this will stop the top from spinning. The most common mistakes are to push down on the top or to pull too slowly on the Power Strap.

#3 Saucer Pass

After spinning the top in the saucer, have the students pick up the saucer in both hands and pass the saucer around their bodies, then under and around each leg in a figure 8 pattern.

#4 Saucer Catch

After spinning the top in the saucer, the player picks the saucer up and tosses the top into the air (The rule is to not throw the top above their heads), catching it again in the saucer a number of times (5). I strongly recommend that they do this and the next three tricks on their knees. If they are standing, one student will miss the catch and go after the top and go under another's attempts, possibly running afoul of a descending top.

For activities;

Team up, with each student having a saucer but using one top to toss between them.

You can have the student get into bigger groups, each with a saucer, and have them pass the spinning top from saucer to saucer, around a circle. Or have more than one spinning top in the circle and see which one spins the longest.

#5 Battle tops

Simply have two or three students do the Spinner in the saucer at the same time and have them watch to see which top remains spinning the longest. This is a fun activity for them and builds a better Spinner through practice. Hint: If one uses the R side on the Power Case and the other the L, the tops will battle more energetically. You can make this a round robin type of competition if desired.

#6 Hand Spin

Use the Power Case Spin. As soon as the top is spinning on the case, turn the case completely over, dumping the top into the palm of the other hand. The hand **MUST** be kept very flat. Cupping the hand will cause the top to stop or exit the hand.

#7 Partner Hand Spin

Have the students pair up and take turns spinning the top in their partners hand using the Floor Spinner method, not the Power Case Spin. Then pass the spinning top back and forth. See how many passes they can make.

#8 2 Hand Catch

After spinning the top in the saucer, the player picks the saucer up and tosses the top into the air (suggest not throwing the top above their heads), landing it in their hand. They **MUST** keep their hands wide open and flat, not cupped. The students should throw from the plate and alternate catching in their right and left hands.

At this time, players (particularly the older ones) should start learning how to control the tilt of the spinning top. This is done by moving the hand in a small arc, starting in the direction the POINT is pointing. This uses the mechanics of gyroscopic precession and is one of the skills that must be mastered in order to become a good top player.

#9 Big Scoop

After spinning the top on the floor, lay the hand flat on the floor between you and the top. The first and second fingers should be split wide (but not bent). Slide the hand forward so that the top is spinning between the first and second fingers and quickly tap the top into the palm of the hand with the index finger. Remember to keep the hand flat.

INTERMEDIATE TRICKS

#1 Knock Out

This is a bit like playing marbles. One player spins a top in a saucer. The opposing player spins their top, gets it spinning in their hand, and kneeling a Power Strip length away from the saucer, launches their spinning top at the one spinning in the saucer. The object is to knock the first top out of the saucer while keeping their own top spinning in the saucer.

For scoring, 0 if target top is not hit, one point if the target top is hit but both tops stay in the saucer, two points if both tops leave the saucer, three points if only the opponents' top is knocked out and the launchers' top remains. A variation would be to have two tops spinning in the saucer and the launcher tries to knock both out with one launch.

#2 Walk the Dog

This introduces the string into the play. Spin the top on the floor, take the ends of the string, one in each hand, and put the middle of the string on the floor on the far side of the spinning top. Put both ends of the string in one hand and gently pull the spinning top along the floor.

#3 Merry Go Round

Get in the position of Walk the Dog but grab the two strings about halfway down. Gently swing the string, in a counter clockwise circle (left handers, clockwise), lifting the spinning top off the ground. This can be done for one or more circles and then be set back down on the floor. The hand should not come above the knees to start or the string will simply come off the top. The top needs to be spinning fast enough to be stable. A slow spinning top will fall off the string.

#4 Zipper

Spin the top on the floor. Take one end of the string in each hand and holding the string one to two inches above the floor, make a clockwise wrap (lefties, counter-clockwise) around the spinning top. Then gently tighten the string on the top by pulling the hands a bit further apart, the top will zip along the string to the right hand.

#5 Sky Rocket

At the discretion of the PE teacher. This trick launches the top into the air and a

reasonable amount of control is necessary to keep the top from coming down onto someone else's head. It is safer, if the students remain on their knees. This is one of the preferred methods of getting the top into the hand for advanced tricks.

With the top spinning in the saucer or on the floor, take the string with one end in each hand. Put the middle of the string on the near side of the top and then circle the string in the dominant hand around the top. Throw the end of the string, that is in the non-dominant hand, to the floor **across** the other string, **NOT ON THE FAR SIDE OF THE TOP**. Make sure your head is not directly over the top, and pull the remaining string sharply, straight up. The top will pop into the air and you can catch it in your dominant hand. **Don't pull too hard**. The top should only go about head high when you are around others.

#6 Hacky Top, knee

Get the spinning top into your hand and then drop the top and lift your knee to bounce the top back into your hand.

#7 Hacky Top, foot

Get the spinning top into your hand and then drop the top and lift your foot to bounce the top back into your hand. It is better to use the inside of your foot but it can be done with the toe. When you get really good, you can catch the top on your shoe and then kick it back up.

#8 Arm Walker

Get the spinning top into your hand and by tilting your arm up gradually, walk the spinning top all the way to the crook of your arm.

ADVANCED TRICKS *(good instructions on the video)*

#1 Merry Go Round from Hand

Get the top spinning into your dominant hand. Place the string between the first and second fingers of the same hand so that the button is on the back of the fingers (you could do this before you put the spinning top in your hand). With the off hand, place the string across the base of the thumb and hold the string lightly with the off hand. Slide the top off your hand, between the thumb and first finger, so that the point of the top catches on the string and pulls it along with the top as you let the string slide easily from the off hand. When the top gets 4-6 inches out of your hand, trap the string with the thumb of the dominant hand and do a lazy, counter clockwise circle (clockwise for leftys). After one or two circles, pull up on the string to bring the spinning top back into the hand.

#2 Crazy Eights Do the Merry Go Round and when the first circle is done, raise the hand so that the second circle goes above your arm, then back under and pull up to the hand. (under, over, under)

#3 Subway

The start is the same as the Merry Go Round but the off hand lets the string slip through all the way to the end. Begin to swing the top gently back and forth like a pendulum. As the top begins to straighten, lift the leg opposite the throwing hand and pass the top under the leg from the inside of the leg to the outside and pop it up, back to the hand.

#4 Dive Bomber

The start is the same as the Subway but as the top swings, the leg on the same side of the throwing hand is raised and the top passes under this leg from the inside of the leg to the outside and back up to the hand.

#5 Mach 5, only with ball bearing tops

Starting with the top spinning in the off hand and lay the string behind the spinning top and make a clockwise wrap (counter-clockwise for lefties) around the point of the top. Holding both the hands at the same height, gently pull the top out of the hand while keeping light tension on the string with the off hand. When you have around 3-4 inches of string on both sides of the top (top is spinning straight up on the string), rotate both hands clockwise around the top.

#6 Gyroscopic Flop, only with ball bearing tops

Set up as for Mach 5 but instead of rotating hands around the top, pull hard on both ends of the string and the top will precess (rotate vertically) around the string.

#7 Texas Cowboy

Do a big Merry Go Round and then raise the hand above your head and swing the second circle around your head and then lower your hand for another circle that passes under your legs one at a time as you step over the string. Return top to your hand.

#8 Roller Coaster

This is similar to a Merry Go Round but the string remains in both hands and the hands are not brought closer than about 10" from each other. The top makes the circle using at least 2/3, or more, of the string. As the top starts the second circle, the throwing hand pulls firmly, up and away from the top. This causes the string to rub against the top and lifts the top back to the hand. If done properly, this trick will regenerate spin and can be repeated again and again.

THROWING TRICKS (good instructions on the video)

Winding the String

Start with putting the end of the string around the cap of the top. If the string doesn't have a loop at the end, hold the end knot against the side of the cap with your off hand thumb, wind the string counter clockwise around the cap and back across the string just above the knot. Then firmly pull the string down to the point and begin winding the string forward, back up the top. Wind smoothly and firmly, not letting the string get any kinks or to go on

top of the string that has already been wound. When the top has been completely wound, hold the top between the thumb and fingers with the point of the top pointed UP. The string should be held between the first and second fingers with the button on the back of the fingers or, if using a stretch band, slide the band around one or two fingers down next to the palm.

Throwing the Top

There are two basic throws. To throw a Spinner on the floor, the top is held horizontally in the hand, with the point in the direction of the thumb side of the hand. It is released over handed, very much like a yo-yo but with the palm down. It could also be described like throwing a baseball, however instead of being “thrown,” the top is simply released out of the hand. The top will turn itself 90 degrees (1/4 turn), making the point down. You **DO NOT** pull back, but end the throw with your hand pointing at the target.

You do not have to throw hard....but you can.

This is the throw that is used in traditional Battle Top. Battle Top is a very old, traditional game, and it’s coming back big time. The old time game was to hit an opponent’s top and the ultimate was to split the other top in two. Those were wooden tops. With the new, super tough plastics used in Spintastics’ tops, you don’t need to worry about breaking them.

There are a number of ways to play Battle Top. You can draw a circle, use a Frisbee, or any number of different kinds of targets. You can just go for hitting the target or hitting a target spin top (a top spun or just laid on the ground.) Many adults enjoy placing coins in the circle and what you knock out of the circle you get to keep. In team play, a large target is used, (saucer sleds are perfect or a garbage can lid can be used. Two teams (2-4 per team) all throw at the same time. A point is given for every top that spins in the target and another point is given to the last top spinning.

The second throw is mainly used for catching the top in the hand or on the string, but it can also be used to throw to the floor if desired. **Do not** throw it down toward the floor. Pretend that you are going to throw the top on a waist high table. Hold you arm straight to the side, not bending your elbow or wrist, with the top held with the point UP. Throw the top with a straight, single swing of the arm at the level of your waist, **not down**. Do not pull back. Do not spread your fingers and release the string. The button remains locked behind your fingers. Gravity will pull the top down. This is actually easier to learn if the students get on their knees to throw it. If the top does not spin straight, you are probably not releasing the top with the point straight up. You can try tilting the point of the top toward you in your hand before the throw.

#1 Boomerang

Begin the throw as in the Spinner but this time, just before the top reaches the end of the string, pull your hand back and up, making a big check mark in the air. Then drop your hand back to the position of the start of the throw. If done correctly, this will bring the top back very close to where your hand should be. Catch the top in your flat hand for a three second spin. All tricks should be completed with a three second hand spin.

#2 Boomerang Under Leg

The throw is made under your lifted leg (opposite the throwing hand) and brought back to the hand.

#3 Boomerang Behind Back

The throw is behind the back and bringing the top around the body and back to the hand.

#4 Trapeze Catch

Up until now, all throws have been with a horizontal spin with the point of the top up. Now we are going to catch the spinning top on the string. For this, we need a vertical spin so the top will be spinning on its side.

Put the point of the top in your thumb and your first two fingers on the cap of the top. Holding the top on its side with the point aimed at your chest, slightly push the top down and then immediately pull your hand straight up, above your head. There is VERY little throw here. Mostly, you actually pull the string off the top. Grab the string about 7-10 inches from your throwing hand with your off hand and catch the descending top on this length of string. Hold the string loosely in your off hand, so that as soon as the top hits the string, allow the string to 'give' with the top so that the weight of the top pulls a length of string through the off hand. Put both strings in the throwing hand, swing the top gently from side to side (starting the first swing the direction the point is aimed) and this will begin to straighten the top. Before the top gets perfectly straight, pull up to bring the top back to the hand.

#5 Rock the Baby

Start with the Trapeze (can be done from top spinning in hand). With both strings in the throwing hand, grab the middle of one of the strings with the off hand, pull this string up and over the throwing hand and back down to below the top. Spread this now doubled string with the off hand and rock the top through the triangle of the string. Let the string back down and swing the top back into the hand for a three second spin. Remember, swinging the top the direction that the point is facing will start the top to straighten up before pulling it up into your hand.

#6 Hop the Fence

Start with the Trapeze (can be done from top spinning in hand.) Put both strings in the throwing hand and place the off hand in front of you with the palm toward you. Lay the strings forward, over the second (middle) finger of the off hand just behind the first knuckle. When the top point is aiming to the throwing side, pull the throwing hand down gently. As the top nears the off hand, trap the string between the first finger and thumb of that hand and the top will hop forward, over the off hand. As soon as it does, relax the grip on the string with the off hand, bring the throwing hand back up and allow the top to return to the bottom. Straighten and return the top to a hand spin.

#7 Planet Hop

Do Hop the Fence but when the top returns to the bottom and the point is aiming to the off hand side, reverse the action. This will bring the top back over the off hand and down

to the starting position. So you have done a forward hop and a backward hop over the off hand. Return top to a hand spin.

#8 Trapeze Catch Behind Back

Throw the top as in the Trapeze but bring the off hand around behind the body to grab the string and catch the top on the string on the throwing hand side, slightly behind the back. Put both strings in the throwing hand and return top to a hand spin.

Science of Spin, Inc. offers award patches for mastery of tricks. Contact Science of Spin at:

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