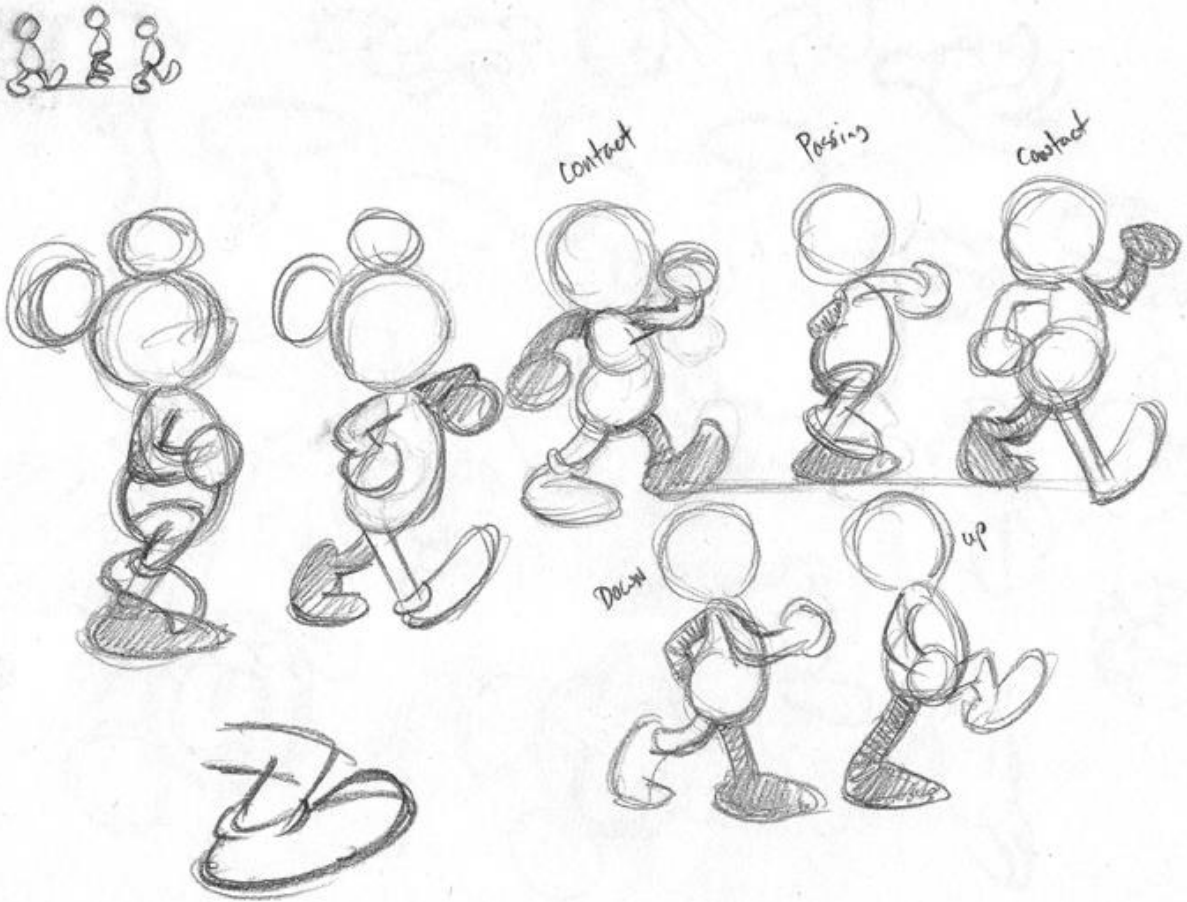
Walk Cycle

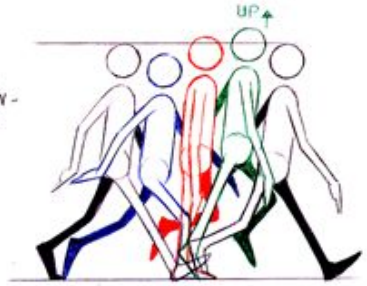
2D animated walk cycle using the brush tool


Contact
Passing
Contact
Down
up

The walk

Walking, running, shuffling, skipping, hopping, jumping, swimming and other forms of human and animal locomotion are rhythmic cyclic actions which can be described using a handful of drawings. Walking is a complex repeating pattern of movements consisting of all sorts of interesting counterplays. The up and down bobbing of the body, the swinging pendulum motion of the arms, the rocking motion of the pelvis, and the complex arcs described by the picking up and putting down of the feet. Some of the complex paths of motion found within a walk cycle. Walking or running is a continuous process of falling off balance which is momentarily stopped by putting a foot out in front

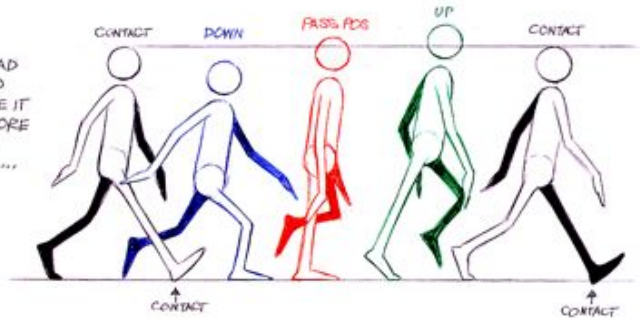
http://minyos.its.rmit.edu.au/aim/a_notes/04_walkcycle_project.html



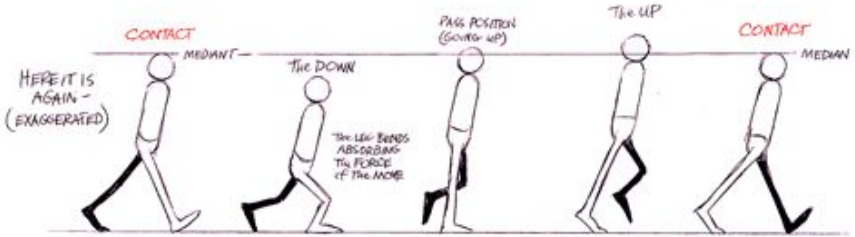
NEXT WE PUT IN THE UP POSITION - -THE PUSH-OFF.

THE FOOT PUSHING OFF LIFTS THE PELVIS, BODY and HEAD UP TO IT'S HIGHEST POSITION - THEN THE LEG IS THROWN OUT TO CATCH US ON THE CONTACT POSITION - SO WE DON'T FALL ON OUR FACE.

LET'S SPREAD IT OUT AND EXAGGERATE IT A LITTLE MORE SO IT'S CLEARER...

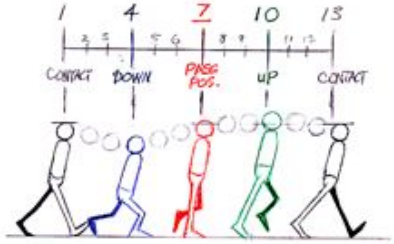


SO, IN A NORMAL 'REALISTIC' WALK
THE WEIGHT GOES (DOWN) JUST AFTER THE STEP - JUST AFTER THE CONTACT.
THE WEIGHT GOES (UP) JUST AFTER THE PASSING POSITION.



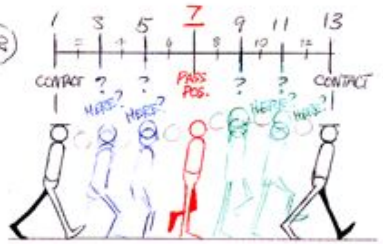
SET THE TEMPO

THE FIRST THING TO DO IN A WALK IS SET A BEAT.
GENERALLY PEOPLE WALK ON 12'S - MARCH TIME (HALF A SECOND PER STEP TWO STEPS PER SECOND.)
BUT LAZY ANIMATORS DON'T LIKE TO DO IT ON 12'S.
IT'S HARD TO DIVIDE UP. YOU HAVE TO USE 'THIRDS' — THINK PARTLY IN THIRDS.



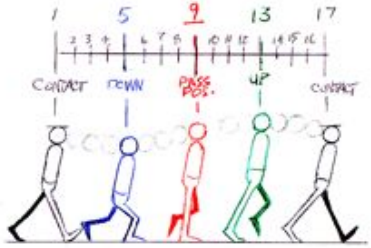
THE IN BETWEENS ARE GOING TO BE ON THIRDS.

OR



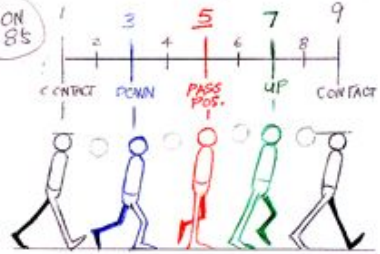
OOPS - NOW WHERE DO WE PUT THE DOWN OR UP? HEY, THIS IS GETTING HARD - ESPECIALLY WHEN WE GET INTO THE ARMS AND HEAD, AND 'ACTING' AND DRAPERY — MAYBE THERE'S AN EASIER WAY?

THERE IS AN EASIER WAY - HAVE HIM/HER WALK ON 16'S — OR WALK ON 8'S.
MUCH EASIER TO WALK ON 16'S - IT'S EASY TO DIVIDE UP — SAME THING ON 8'S.
(EACH STEP = 2/3 SEC.) (3 STEPS PER SEC.)



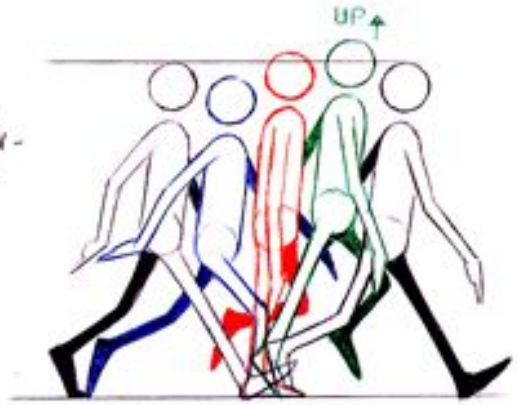
WHEW, THAT MAKES LIFE EASIER. NICE EVEN DIVISIONS NOW -

ON 8S



(REDUCED UP AND DOWN ACTION - SINCE IT'S TAKING PLACE IN A SHORTER TIME)

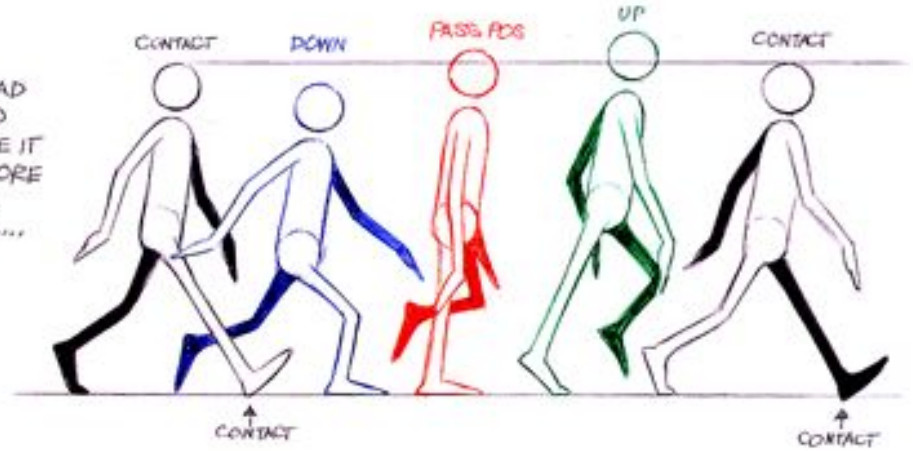
THIS IS WHY CARTOON WALKS ARE OFTEN ON 8'S.
BUMP, BUMP, BUMP, 3 STEPS A SECOND.



NEXT WE PUT IN THE UP POSITION - -THE PUSH-OFF.

THE FOOT PUSHING OFF LIFTS THE PELVIS, BODY and HEAD UP TO IT'S HIGHEST POSITION - THEN THE LEG IS THROWN OUT TO CATCH US ON THE CONTACT POSITION - SO WE DON'T FALL ON OUR FACE.

LET'S SPREAD IT OUT AND EXAGGERATE IT A LITTLE MORE SO IT'S CLEARER...



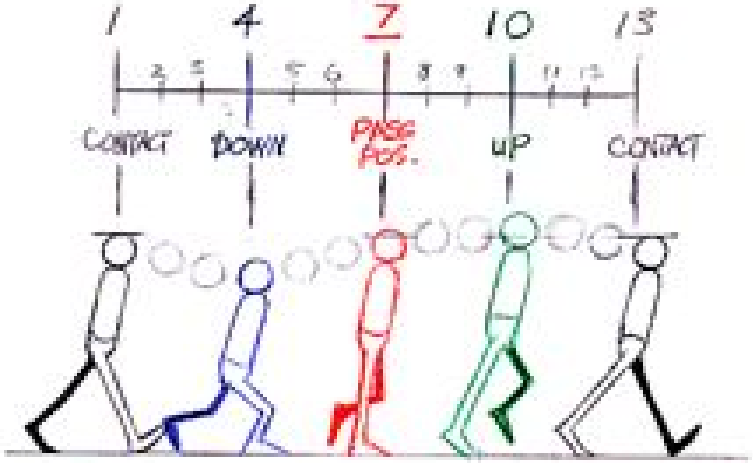
SO, IN A NORMAL 'REALISTIC' WALK
THE WEIGHT GOES (DOWN) JUST AFTER THE STEP - JUST AFTER THE CONTACT.
AND THE WEIGHT GOES (UP) JUST AFTER THE PASSING POSITION.

SET THE TEMPO

THE FIRST THING TO DO IN A WALK IS SET A BEAT.

GENERALLY PEOPLE WALK ON 12'S - MARCH TIME (HALF A SECOND PER STEP. TWO STEPS PER SECOND.)

BUT LAZY ANIMATORS DON'T LIKE TO DO IT ON 12'S.
IT'S HARD TO DIVIDE UP. YOU HAVE TO USE 'THIRDS' — THINK PARTLY IN THIRDS.

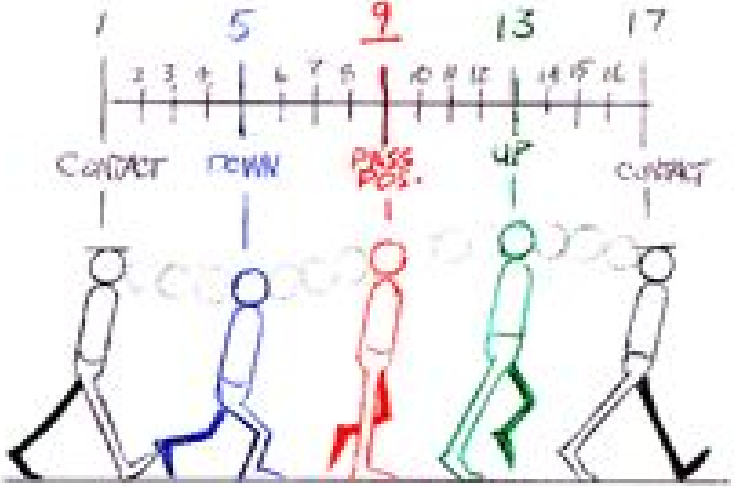


THE IN BETWEENS ARE GOING TO BE ON THIRDS.

OR

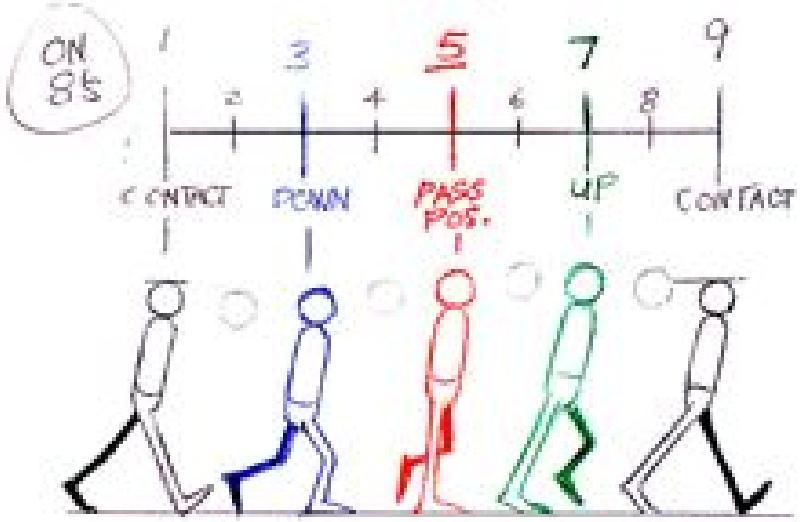
OOPS - NOW WHERE DO WE PUT THE DOWN OR UP?
HEY, THIS IS GETTING HARD - ESPECIALLY WHEN WE GET INTO THE ARMS AND HEAD, AND 'ACTING' AND DRAPERY — MAYBE THERE'S AN EASIER WAY?

THERE IS AN EASIER WAY — HAVE HIM/HER WALK ON 16'S — OR WALK ON 8'S.
MUCH EASIER TO WALK ON 16'S — IT'S EASY TO DIVIDE UP — SAME THING ON 8'S.
(EACH STEP = 1/12 SEC)



WHEW, THAT MAKES LIFE EASIER.
NICE EVEN DIVISIONS NOW —

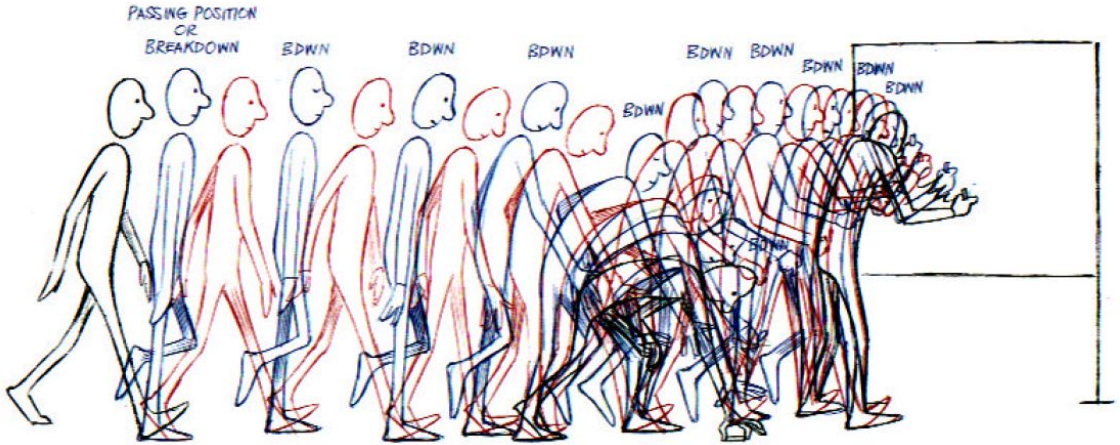
(3 STEPS PER SEC.)

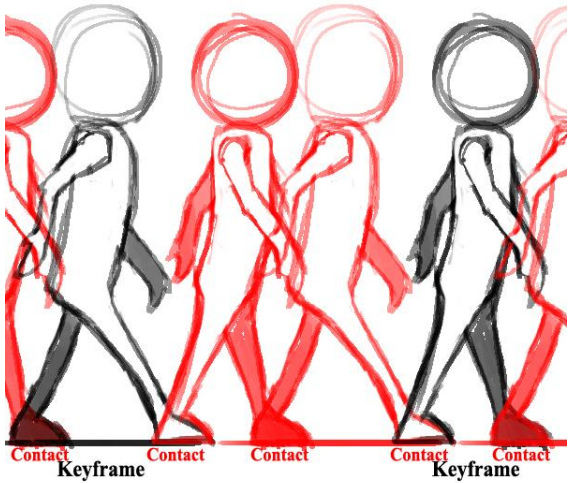


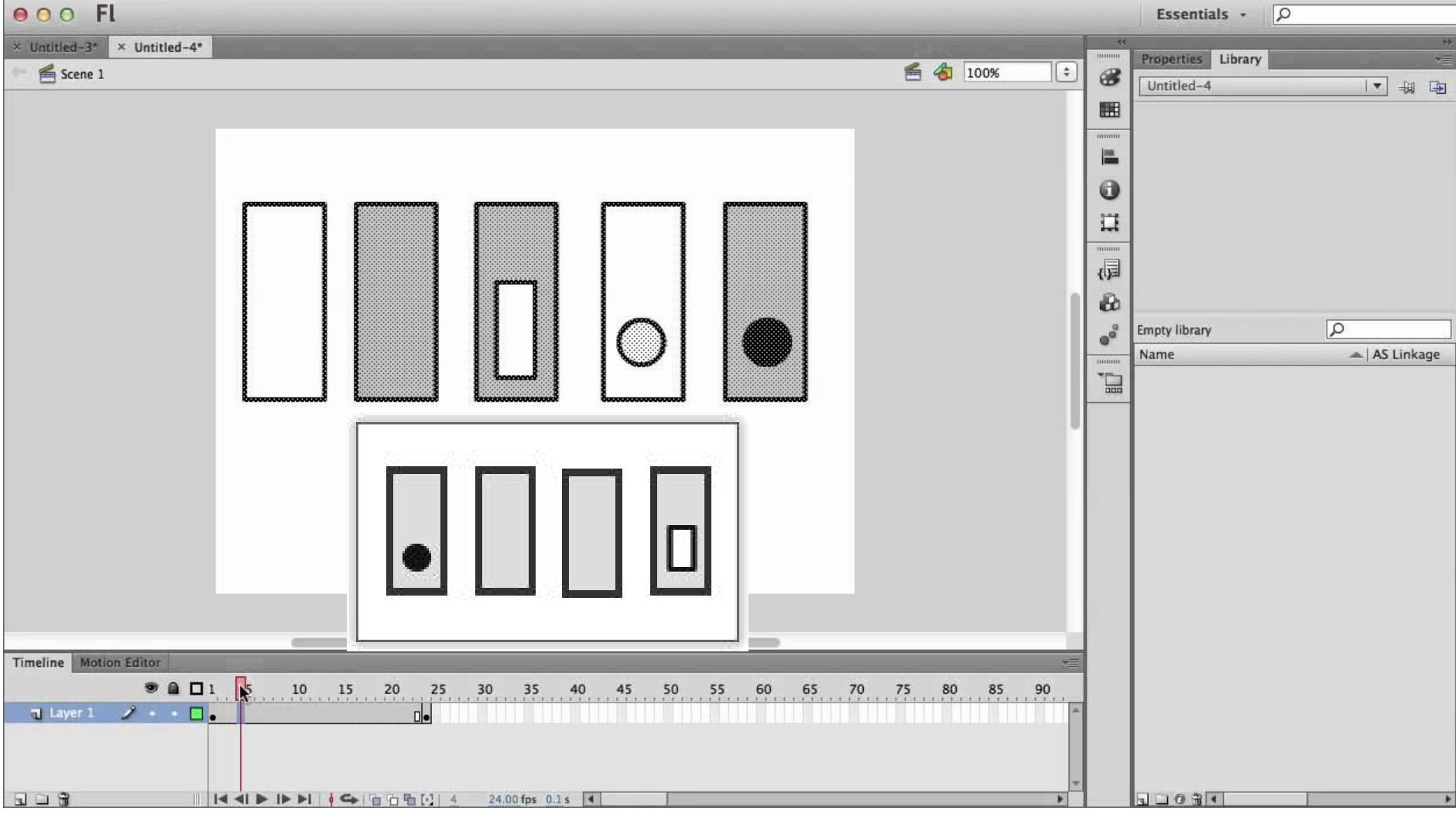
(REDUCED UP AND DOWN ACTION - SINCE IT'S TAKING PLACE IN A SHORTER TIME)

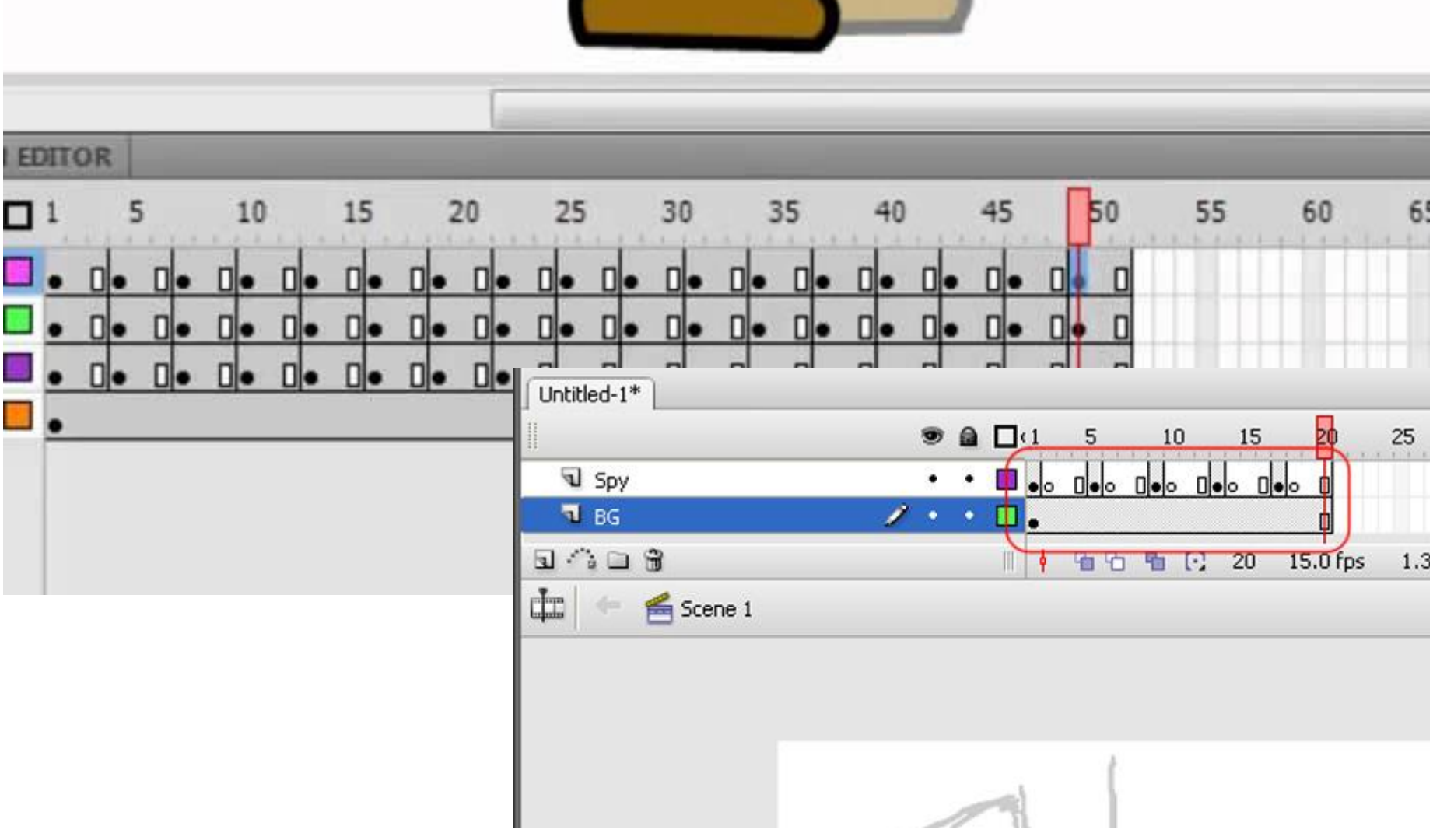
THIS IS WHY CARTOON WALKS ARE OFTEN ON 8'S.
BUMP, BUMP, BUMP, 3 STEPS A SECOND.

Difference between Key Frames and InBetween frames






Fl
Essentials
Untitled-3*
Untitled-4*
Scene 1
100%
Properties
Library
Untitled-4
Empty library
Name
AS Linkage
Timeline
Motion Editor
Layer 1
24.00 fps
0.1 s


EDITOR
1 5 10 15 20 25 30 35 40 45 50 55 60 65
Untitled-1*
1 5 10 15 20 25
Spy
BG
20 15.0 fps 1.3
Scene 1

Good resources

http://youtu.be/OdhuDGOyAXc

http://youtu.be/7ClMgjyMhXU