

2D Animation Principles

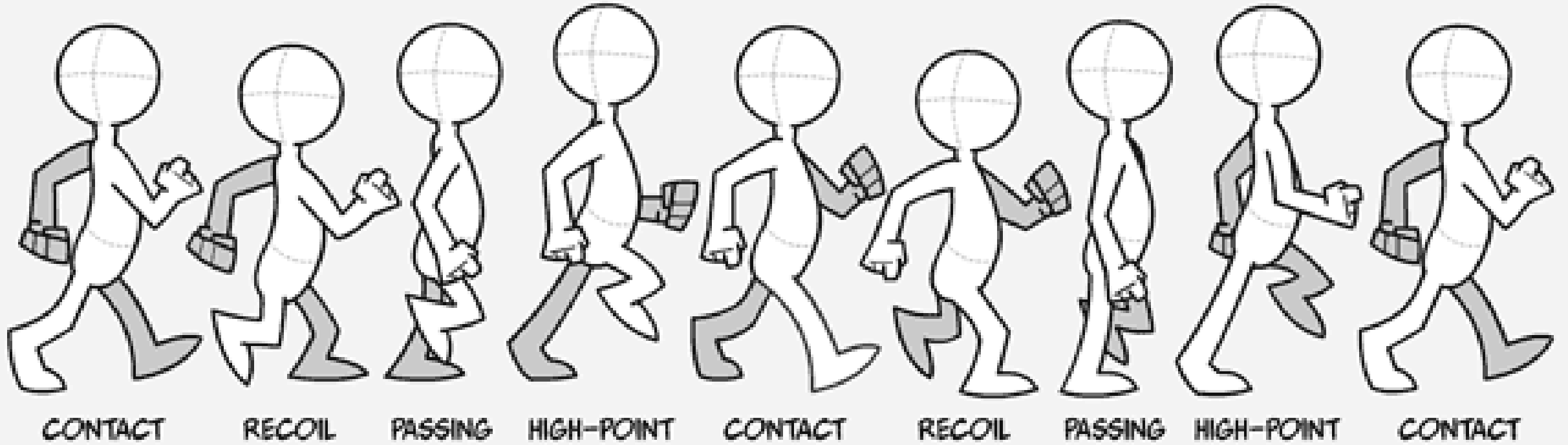
Week 7

Standing Walk Cycle

12 Principles of Animation

- **Squash and Stretch**
- **Anticipation**
- **Staging**
- **Straight Ahead or Pose-to-Pose**
- **Follow-Through and Overlapping**
- **Slow-in and Slow-out**
- **Arcs**
- **Secondary Action**
- **Timing**
- **Exaggeration**
- **Solid Drawing**
- **Character Appeal**

Standing Walk Cycle: Key Frames



Contact Position (stride)

Passing Position

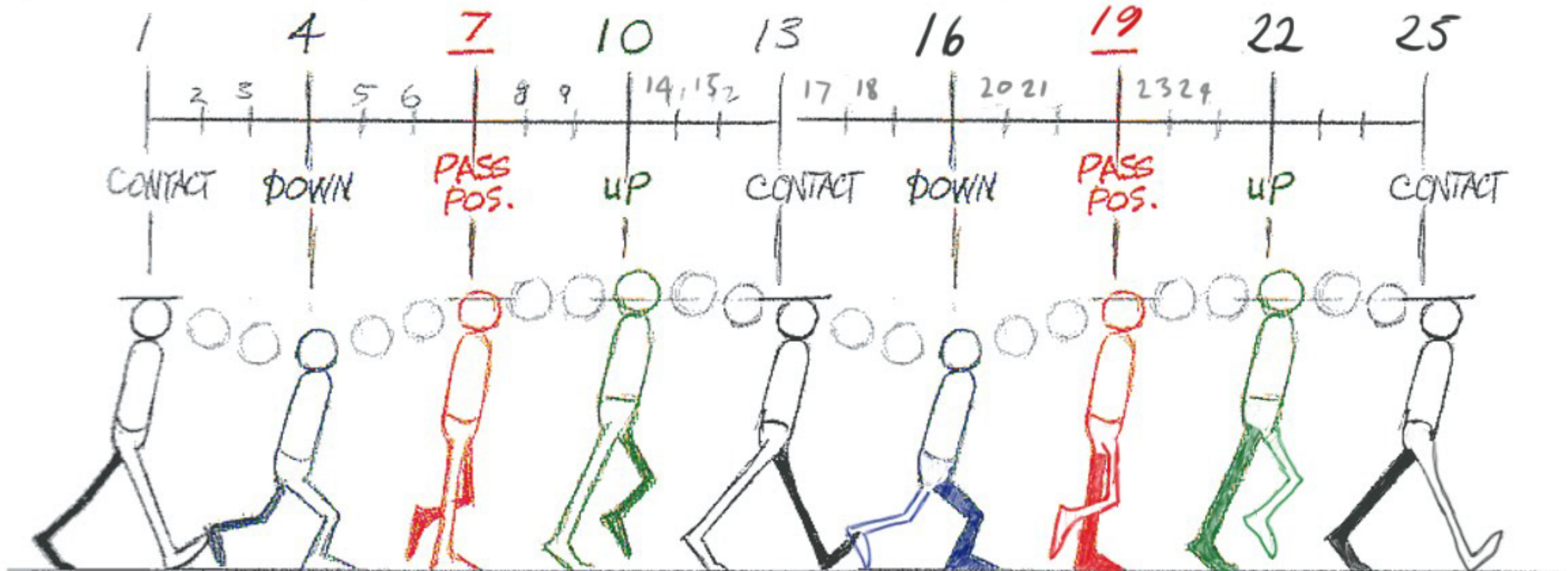
Recoil Position (squash)

High-Point Position (stretch)

Standing Walk Cycle: Key Frames

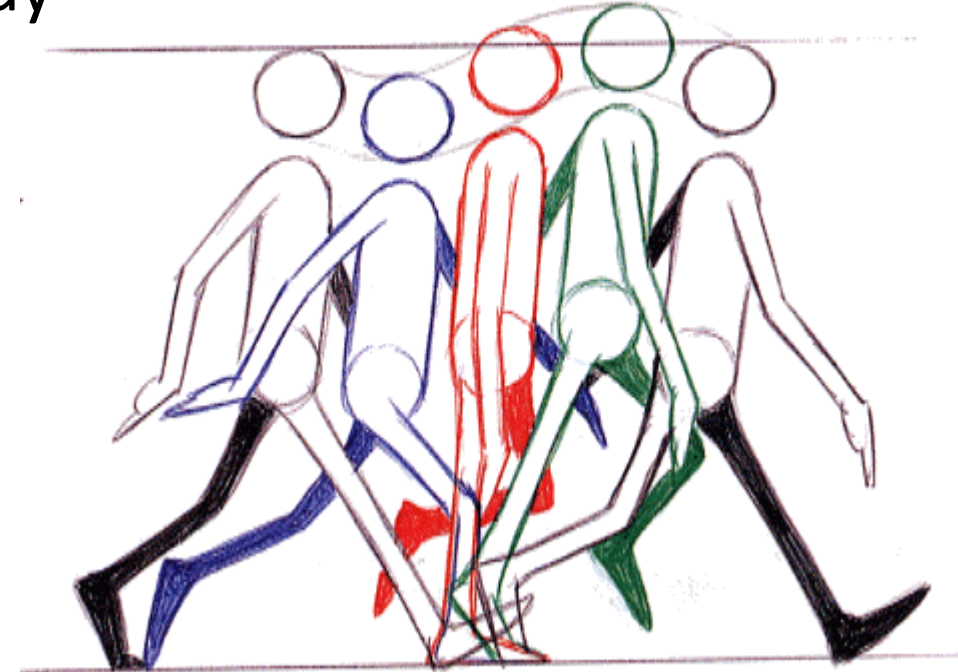
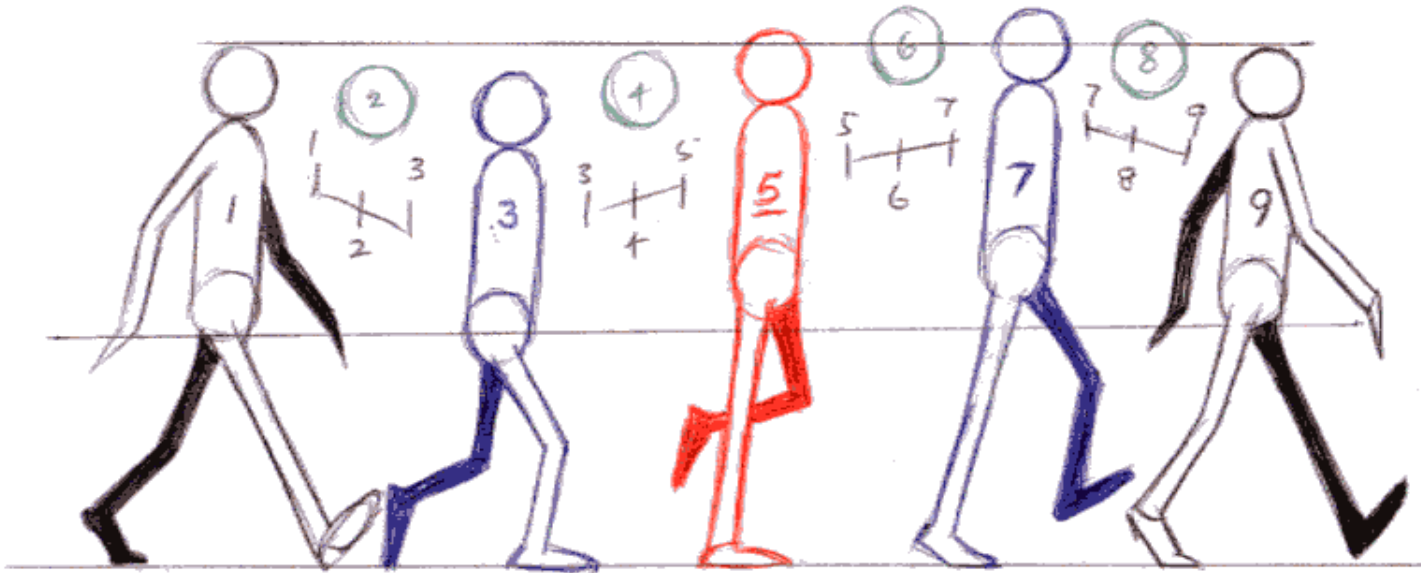
Walk Cycles are Animated on 1's to Match panning Backgrounds

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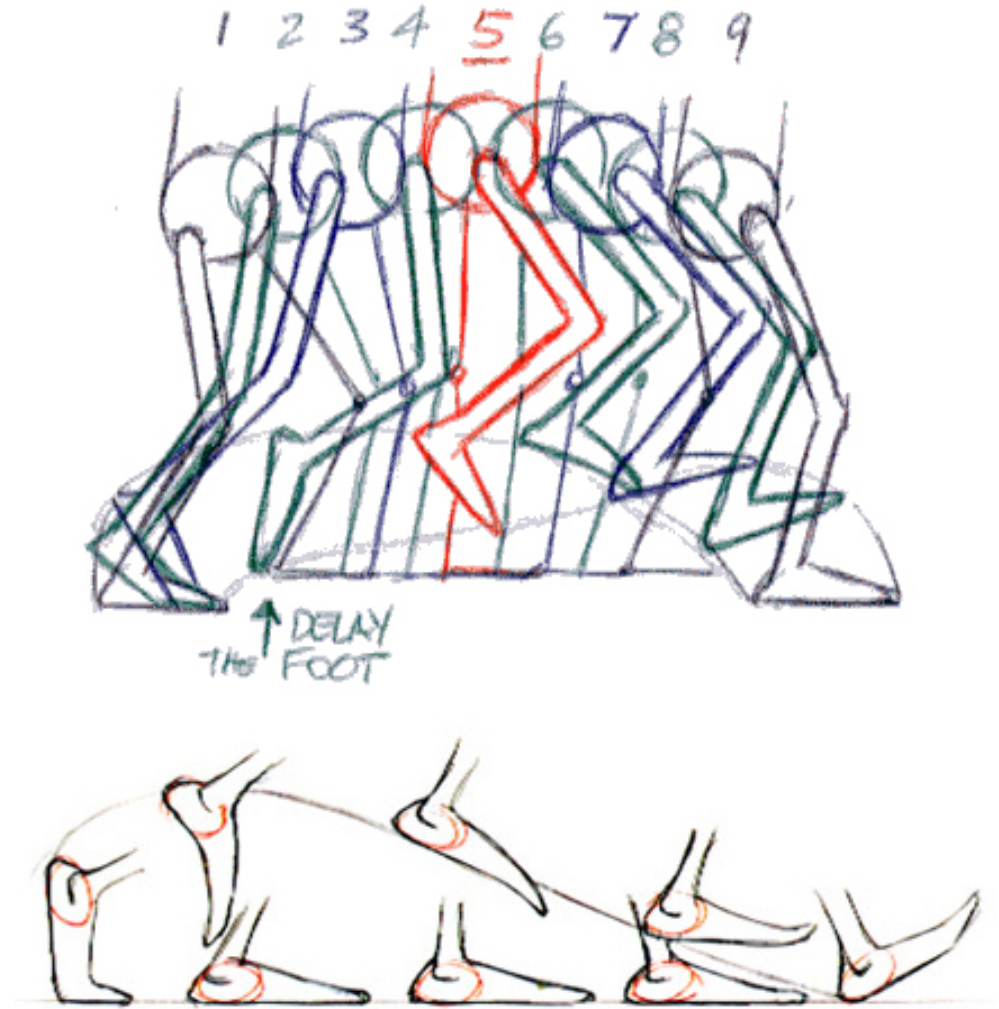
Standing Walk Cycle

- Body/Head move Up and Down in a Walk Cycle
 - Body is at its Highest at High Point Position
 - Body is at its Lowest at Recoil Position
- Head is effected by Drag/Follow-Through
 - It moves a Frame or Two Behind the Body



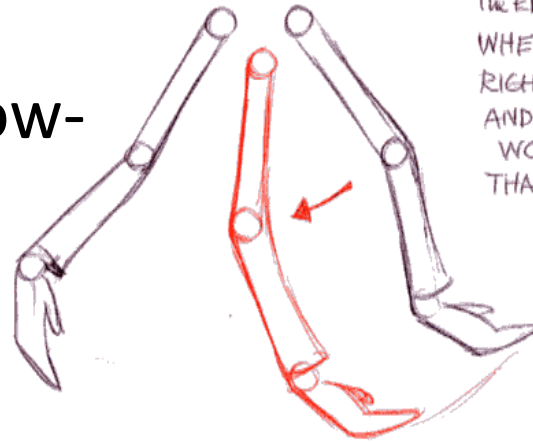
Standing Walk Cycle

- Heel/Toe
 - Foot Hits the Ground Heel First
 - Foot is lifted off the Ground Heel First
- Leg Bends and Swings the Foot Forward on an Arc

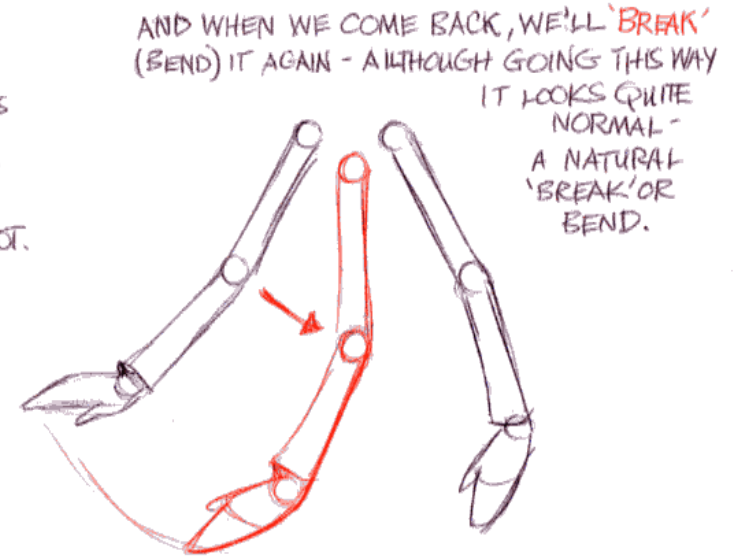


Standing Walk Cycle

Arm/Hand swings on an Arc.
Hand has Drag/Overlap/Follow-Through.

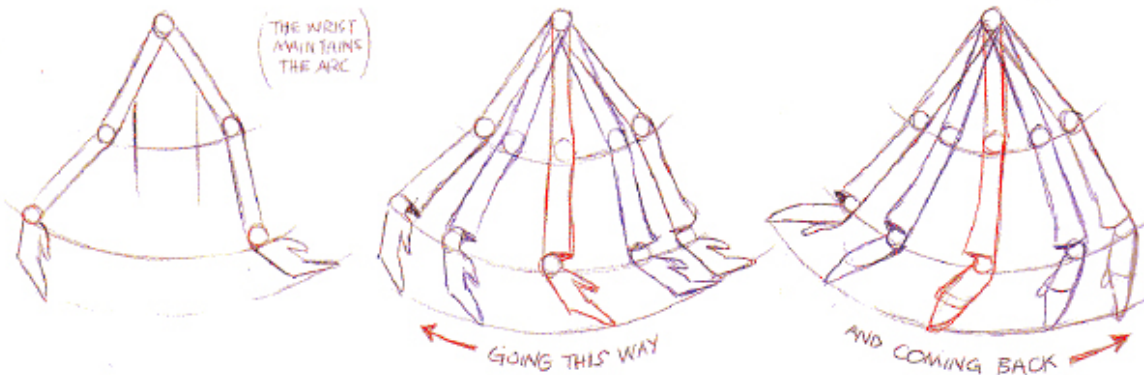


WHEN WE GO FORWARD WE'LL 'BREAK' (BEND) THE ELBOW JOINT WHETHER IT LOOKS RIGHT OR WRONG AND WHETHER IT WOULD BEND THAT WAY OR NOT.



AND WHEN WE COME BACK, WE'LL 'BREAK' (BEND) IT AGAIN - ALTHOUGH GOING THIS WAY IT LOOKS QUITE NORMAL - A NATURAL 'BREAK' OR BEND.

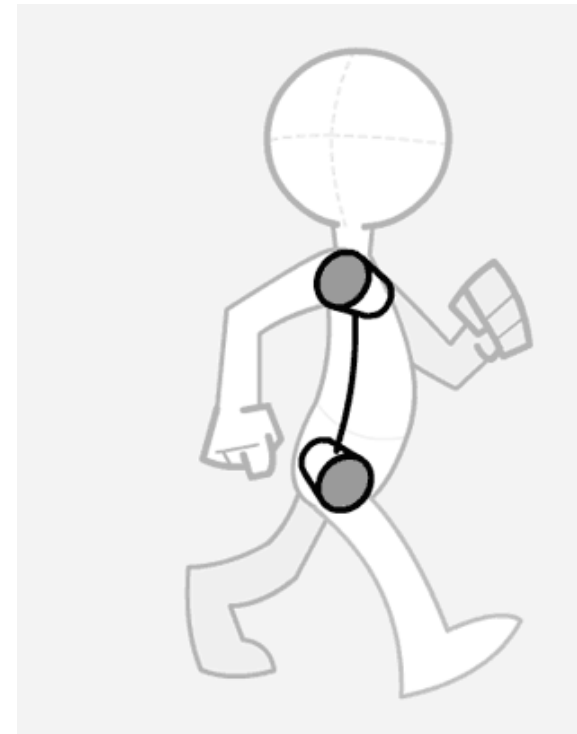
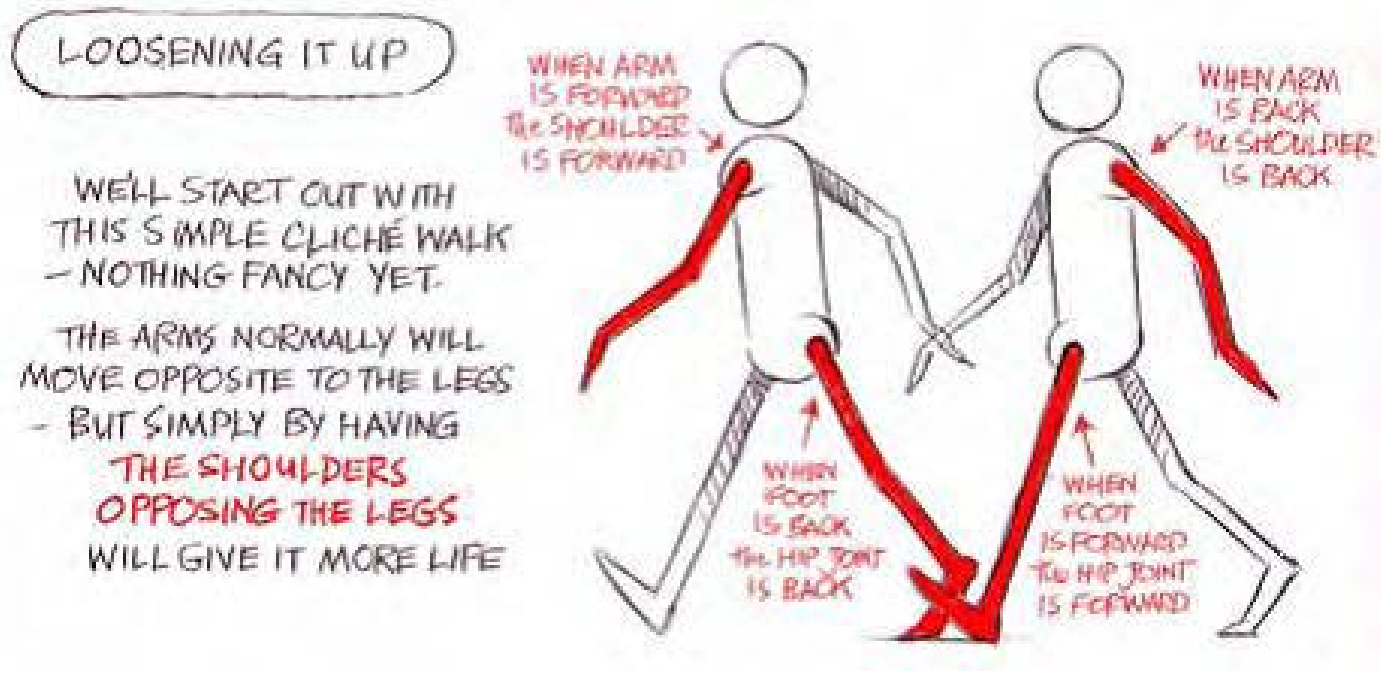
TO GET SOME FLEXIBILITY IN AN ARM SWING WE'D DRAG THE HAND -



Arm Does Not stay in the Same Position.
The Hand Drag Effects it .

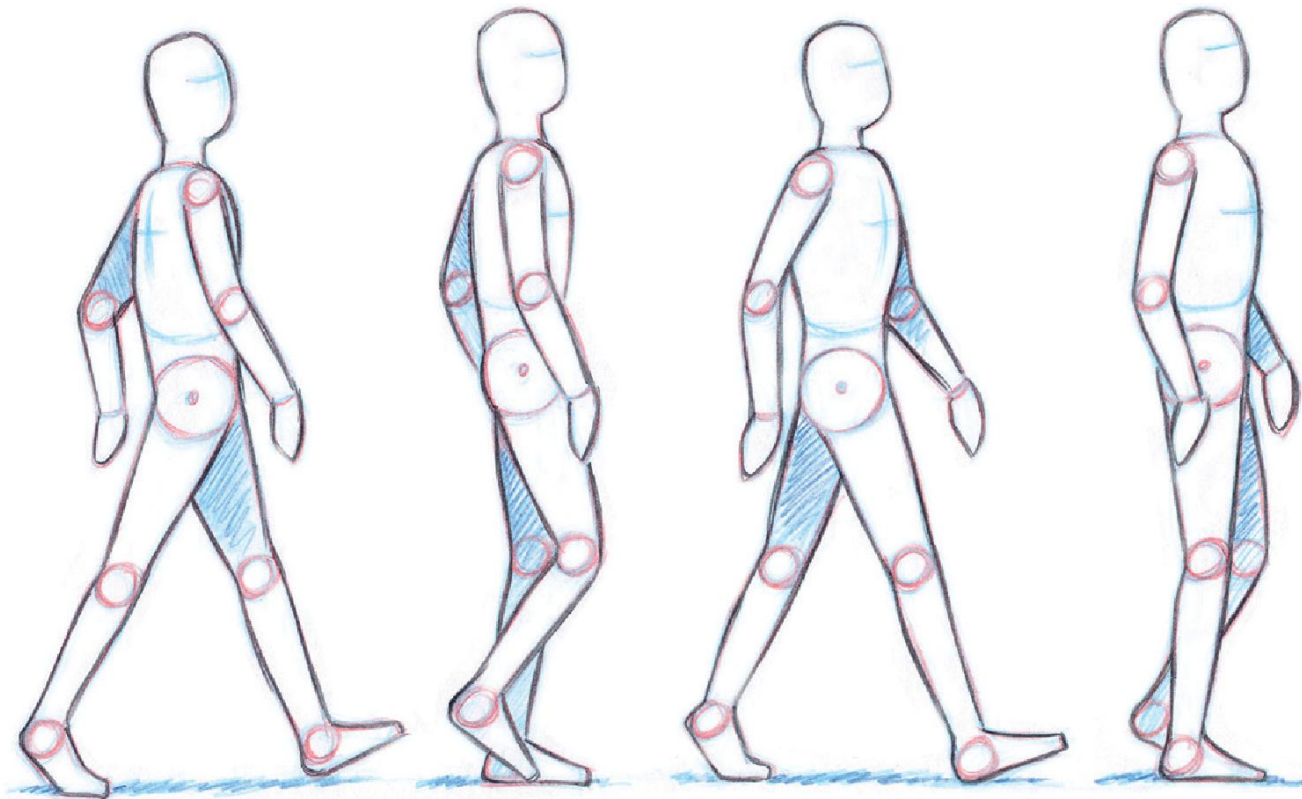
Standing Walk Cycle

- Shoulders Turn with Swing of Arms
- Hips Turn with the Legs moving Forward and Back



Standing Walk Cycle

Arms move in the Opposite Direction of the Legs
Left Arm in Front, Left Leg in Back



Standing Walk Cycle

- Types of Walks - Characters - Acting
- old, young, rich, poor, healthy, sick, happy, depressed, hopeful, sad, drunk?
- The type of walk tells a story about the character's emotional, physical, economic, etc. state of being.
- Weight and Balance tells a lot about the character. The position of your center of gravity changes the feeling of weight and balance. The balance of a character may be determined by their mass, age, environment, or object they are carrying.

Standing Walk Cycle

- Observe people walking. Using a Stopwatch, time the steps per second. Notice the movement of his/her head up and down. Ask a friend/relative to balance a book on his/her head or walk with his/her legs wide apart or close together.
- You Want to Have Your Character Walk Cycle to have Personality or Emotion.
- Make use of the Reference Videos Supplied
- Make your Own Reference Video

Standing Walk Cycle

- Feet make Contact/Lift with Heel/Toe
- Arms move in the Opposite Direction of the Legs
- The Head and Hands are influenced by Follow-Through/Drag/Overlap
- Shoulders Turn with Swing of Arms
- Hips Turn with the Legs moving Forward and Back
- Character has Personality/Emotion
- Animated on 1's

Standing Walk Cycle

- Use a Guide to Mark:
 - Foot Slide
 - High and Low Point of Body/Head
 - Arc of Arm Swing

Assignment: Standing Walk Cycle Due Week 8

Create a New Scene Named 'WalkCycle'

- Using all techniques learned so far in class, create an Animation That Depicts a Character Standing Walk Cycle.
- Must have/wear/carry something to demonstration Follow Through, Drag and Overlap (Long, Floppy Ears or Hair, Cape, Tail, Hat with Feather, etc.)
 - Must be Animated on Separate Layer from Character
- **MUST USE:**
 - Drawing Layers (Renamed)
 - Drawing Group Layers (Renamed)
 - Must Present a Clean, Well Organized Time Line, Easy to Read and Maneuver
 - Colour Card Layer
 - Rough and Clean Up Layers
 - Guides/Timing Charts
 - Xsheet
 - Annotation Column
 - Tempo Markers
 - Marked Key Frames, Breakdown Drawings

Assignment: Standing Walk Cycle Due Week 8

- **Walk Cycle Must:**
 - Feet make Contact/Lift with Heel/Toe
 - Arms move in the Opposite Direction of the Legs
 - The Head and Hands are influenced by Follow-Through/Drag/Overlap
 - Shoulders Turn with Swing of Arms
 - Hips Turn with the Legs moving Forward and Back
 - Character has Personality/Emotion
 - **Animated on 1's**
- **Character Must Stay on Model**
 - Use Animation Desk/Shift and Trace to assure all Drawings are on Model

Assignment: Standing Walk Cycle Due Week 8

- Must Demonstrate the following of the 12 Animation Principles:
 - Squash and Stretch
 - Straight Ahead and Pose-to-Pose
 - Follow-Through, Drag and Overlap
 - Slow-in and Slow-out
 - Arcs
 - Secondary Action
 - Timing
 - Exaggeration
 - Solid Drawing
 - Character Appeal
- Render QuickTime Movie of Finished Assignment (1/4 Resolution) in 'WalkCycle' Scene Folder. You will be required to Turn In Entire 'WalkCycle' Scene Folder, with QuickTime Movie, in Week 9 in order to receive credit for Assignment.

Standing Walk Cycle: References

- Animation Reference - Larger Male Standard Walk - Grid Overlay
- https://www.youtube.com/watch?v=L3_em686qEE
- Animation Reference - Athletic Male Angry walk - Slow Motion half speed
- https://www.youtube.com/watch?v=ZPI7_oVNB24
- Animation Reference - Female walk angry - Slow Motion
- https://www.youtube.com/watch?v=2e0Fzm_mmOE
- Animation Reference - Female Standard Walk - Grid Overlay
- <https://www.youtube.com/watch?v=G8Veye-N0A4>
- Motion Reference for Animators and Artists
- <https://www.youtube.com/channel/UCRvspTjApofA2Yg3i10gTdQ>
- 100 Different Ways to Walk (Animation Reference)
- <https://www.youtube.com/watch?v=HEoUhlesN9E&feature=youtu.be>