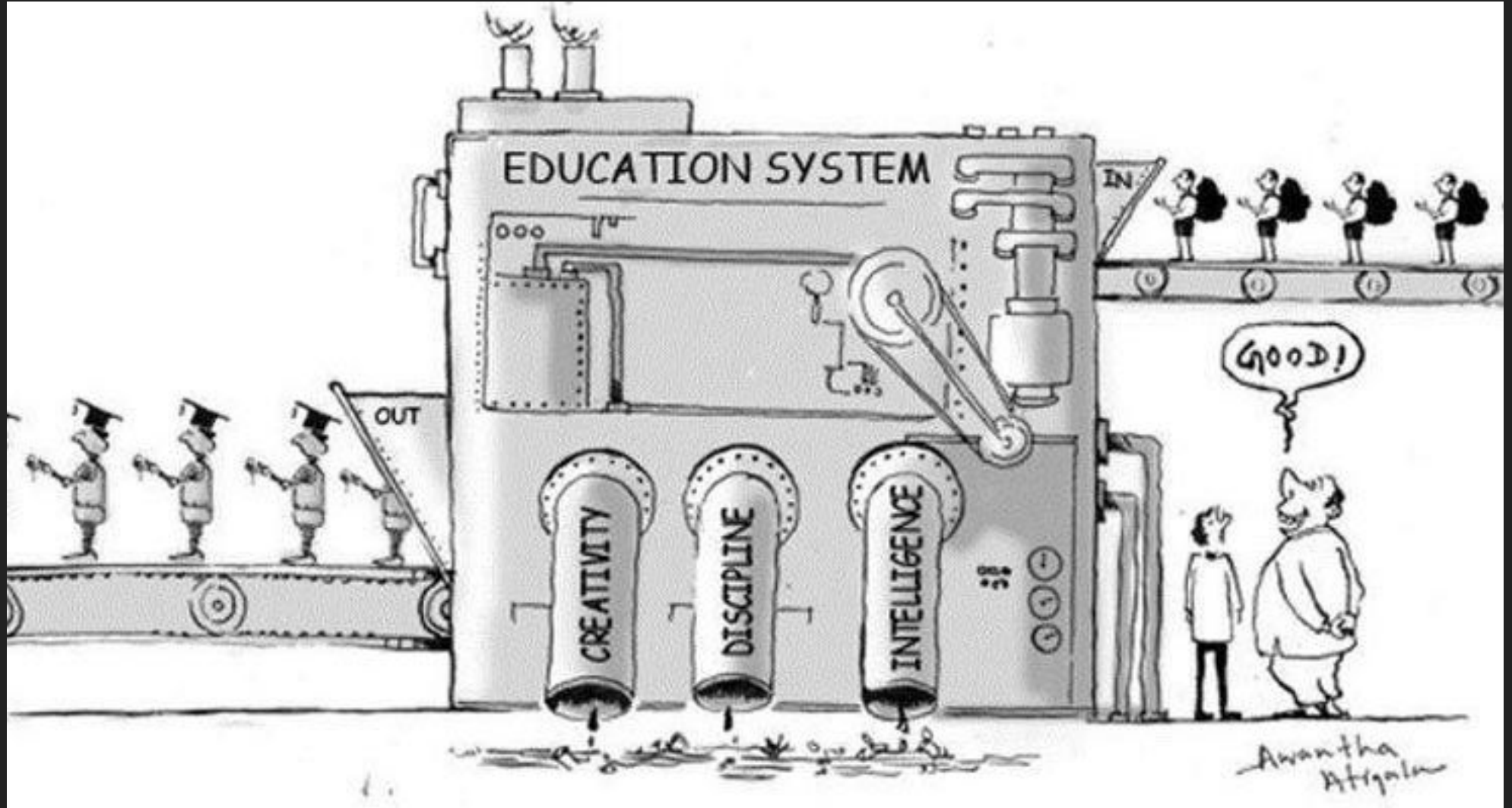


TEACHING GEOMETRY

THROUGH DANCE

## TEACHING GEOMETRY THROUGH DANCE

### WHY AM I HERE?



### OUTCOMES

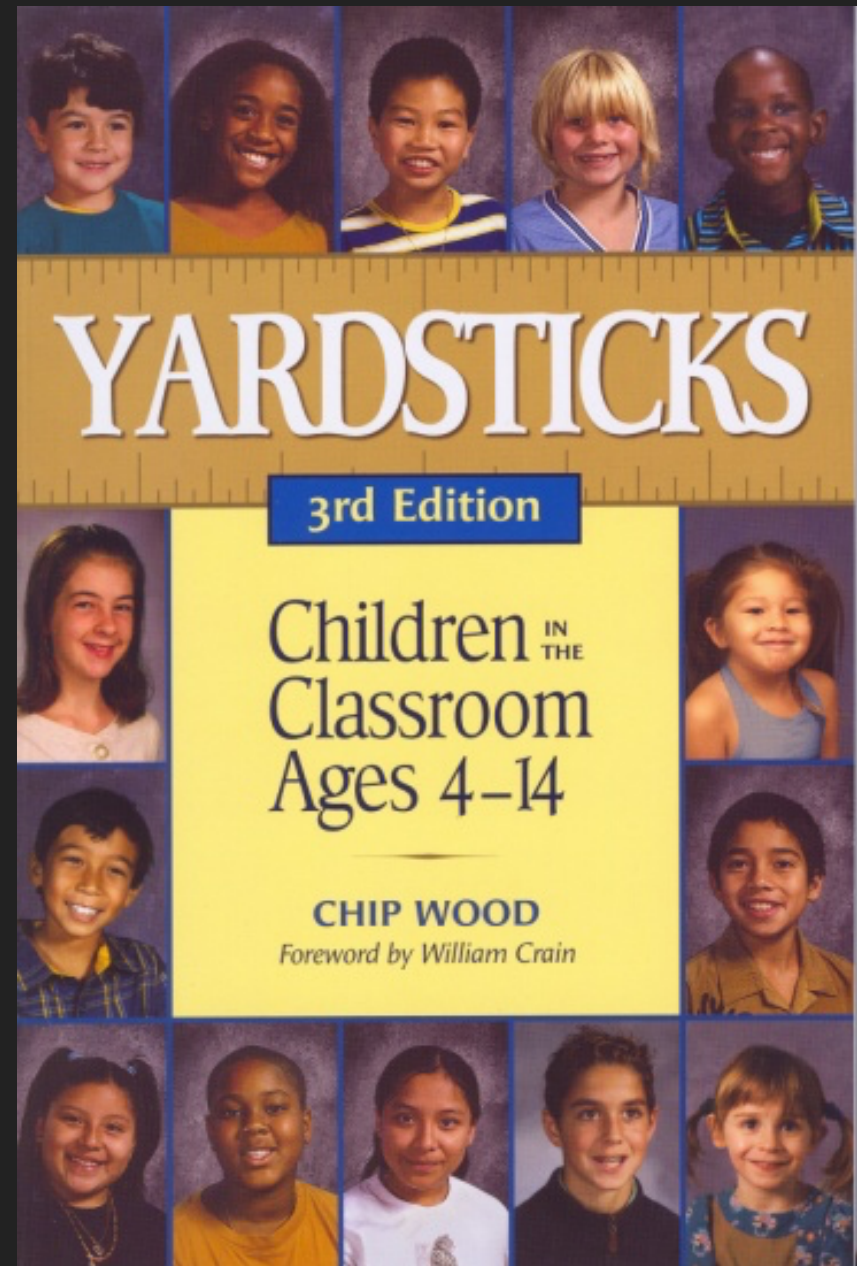
- ▶ Participate in a variety of folk dances that will assist in teaching Geometric concepts
- ▶ Explore how to implement Folk Dancing in your classroom
- ▶ Brainstorm extensions and adaptations for your unique teaching situation
- ▶ Have fun and get those steps in!

## WHY DANCE?





## YARDSTICKS BY CHIP WOOD



### ELEVEN YEAR OLDS

- ▶ Restless and very energetic
- ▶ Moody, self-absorbed, like to challenge rules, can be cruel to each other
- ▶ Very focused on who is "in" and who is "out"
- ▶ Would rather learn new skills than review old work
- ▶ Attracted to challenge and are academically resilient

### TWELVE YEAR OLDS

- ▶ Very energetic but need more rest time
- ▶ More self-assured and appear at-ease
- ▶ Will initiate their own activities without adult prompting
- ▶ Both playful and serious. Can enjoy a class game then transition into a serious discussion more easily
- ▶ Can better integrate their learning when schools use collaborative, cross-disciplinary teaching models.
- ▶ Leadership qualities abound and are better at organizing over and extended period of time.

### THIRTEEN YEAR OLDS

- ▶ Lots of physical energy but VERY awkward
- ▶ Moody and sensitive, often like to be left alone
- ▶ Feelings are easily hurt and can be mean to others as a result of insecurity and feeling scared
- ▶ Tentative and worried. Unwilling to take risks on intellectual tasks
- ▶ Will challenge authority/adults. "Why do we have to learn this?"

### FOURTEEN YEAR OLDS

- ▶ Very energetic and need lots of movement
- ▶ Typically loud and rambunctious
- ▶ Are in a “know-it-all” stage
- ▶ Respond well to academic variety and challenge
- ▶ Learn well in cooperative learning groups
- ▶ Take pleasure in developing individual skills and enjoy self-evaluating their work to improve it.



## TEACHING GEOMETRY THROUGH DANCE

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# Dance



# Procedures

# Be polite





Always



be safe



## TEACHING GEOMETRY THROUGH DANCE

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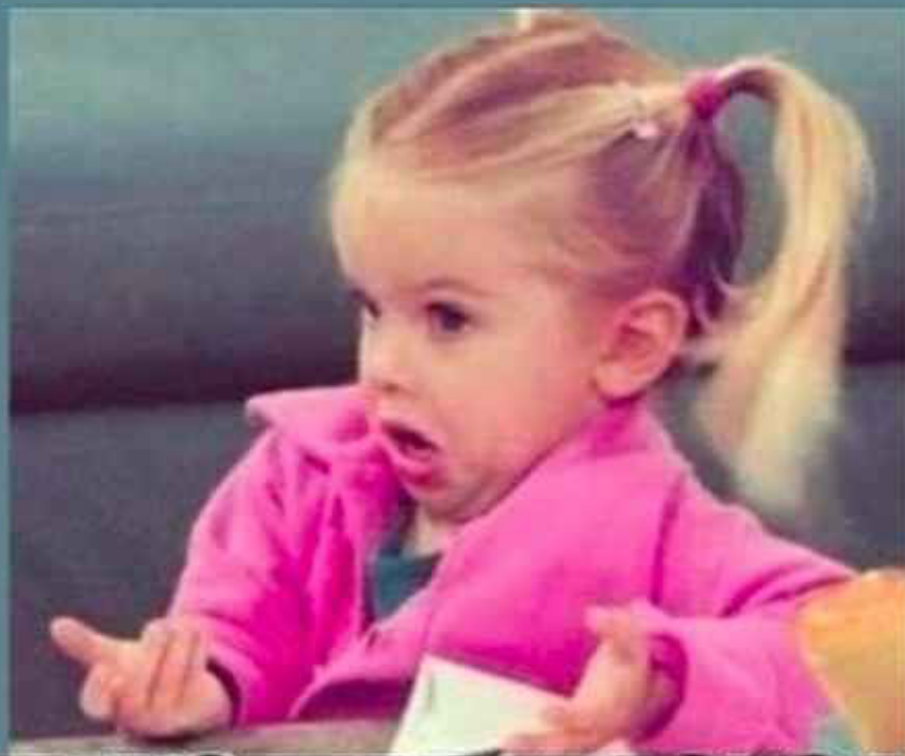
# Listen



# to the music

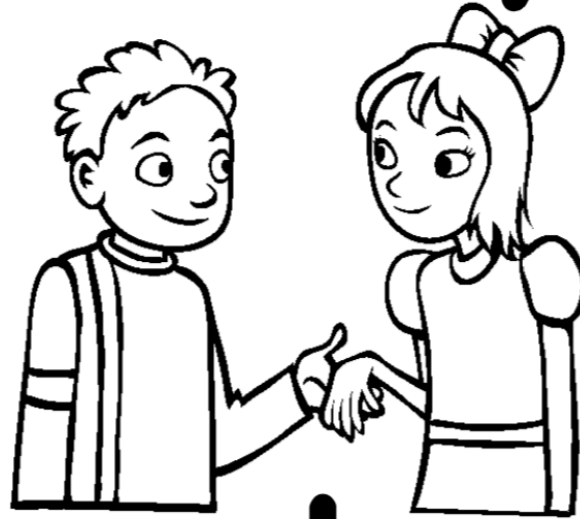


**MY FACE AFTER I JUST FINISH GIVING  
DIRECTIONS**



**AND A STUDENT ASKS ME  
WHAT TO DO.**

Thank your



Partner

## TEACHING GEOMETRY THROUGH DANCE

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Clap for  
  
the music

## TEACHING GEOMETRY THROUGH DANCE

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## TEACHING GEOMETRY THROUGH DANCE

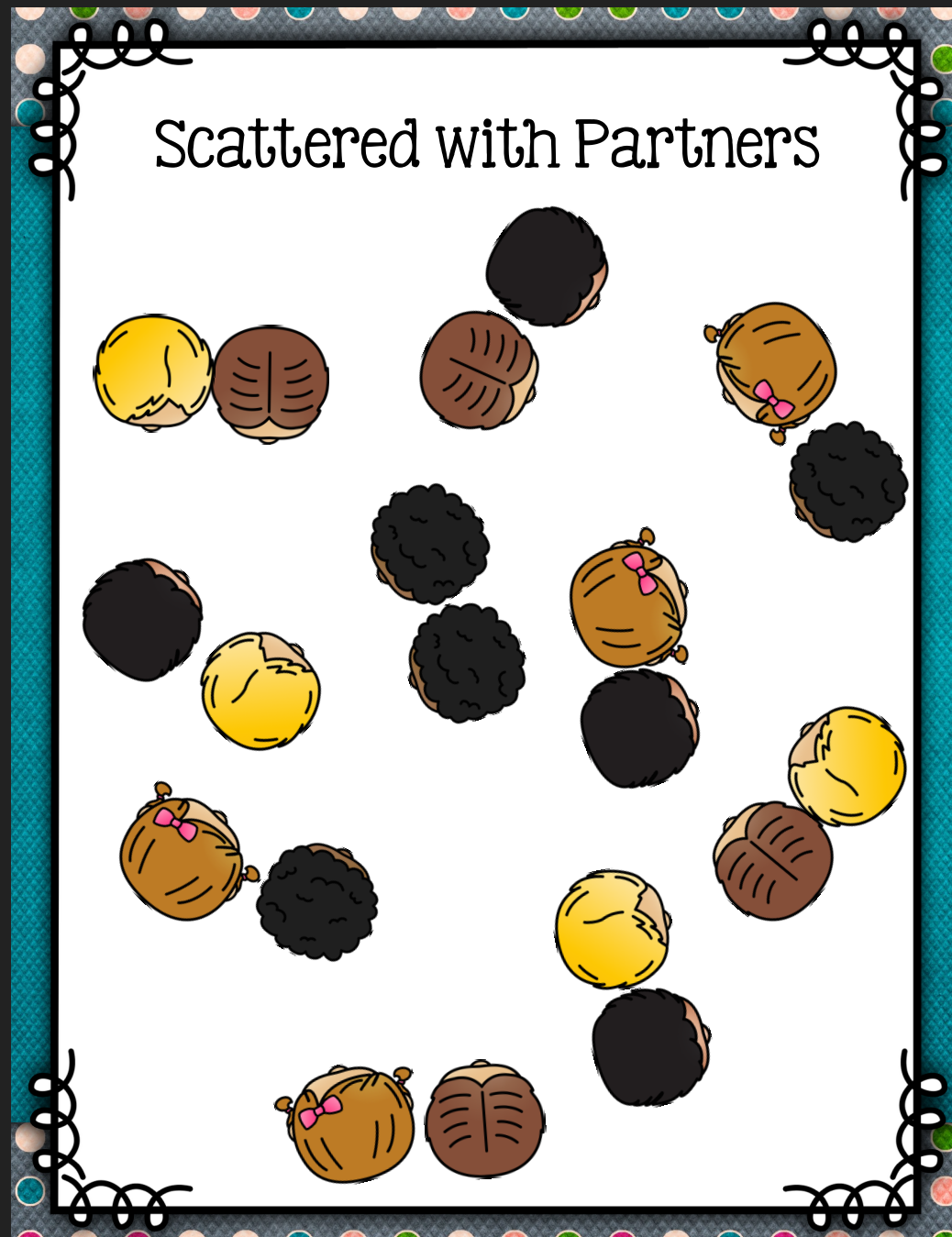
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# SASHA!



© Reuters

SASHA!



## TEACHING GEOMETRY THROUGH DANCE

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# SASHA!

### ▶ A (8)

All wag finger at partner saying with the music  
"Sahsa, Sasha, ras, dva, tri!"

### ▶ B1/2 (16)

Clap with partner  
Right, right, right (2)  
Left, left, left, (2)  
Both, both, both (2)  
Knees, knees, knees (2) Repeat!

### ▶ C1 (8)

**Right elbow turn;** on eight, throw fist in the air and shout "HEY!"

### ▶ C2 (8)

**Left elbow turn;** on eight, throw fist in the air and shout "HEY!"

### ▶ D (32)

Turn to your partner and say "Das Vidana." Walk around the room mixing freely until the music tells you to find a new partner. Begin the form again!



**RIGHT AND LEFT ARM SWING:  
REFLECTION AND ROTATION AROUND A VERTEX**



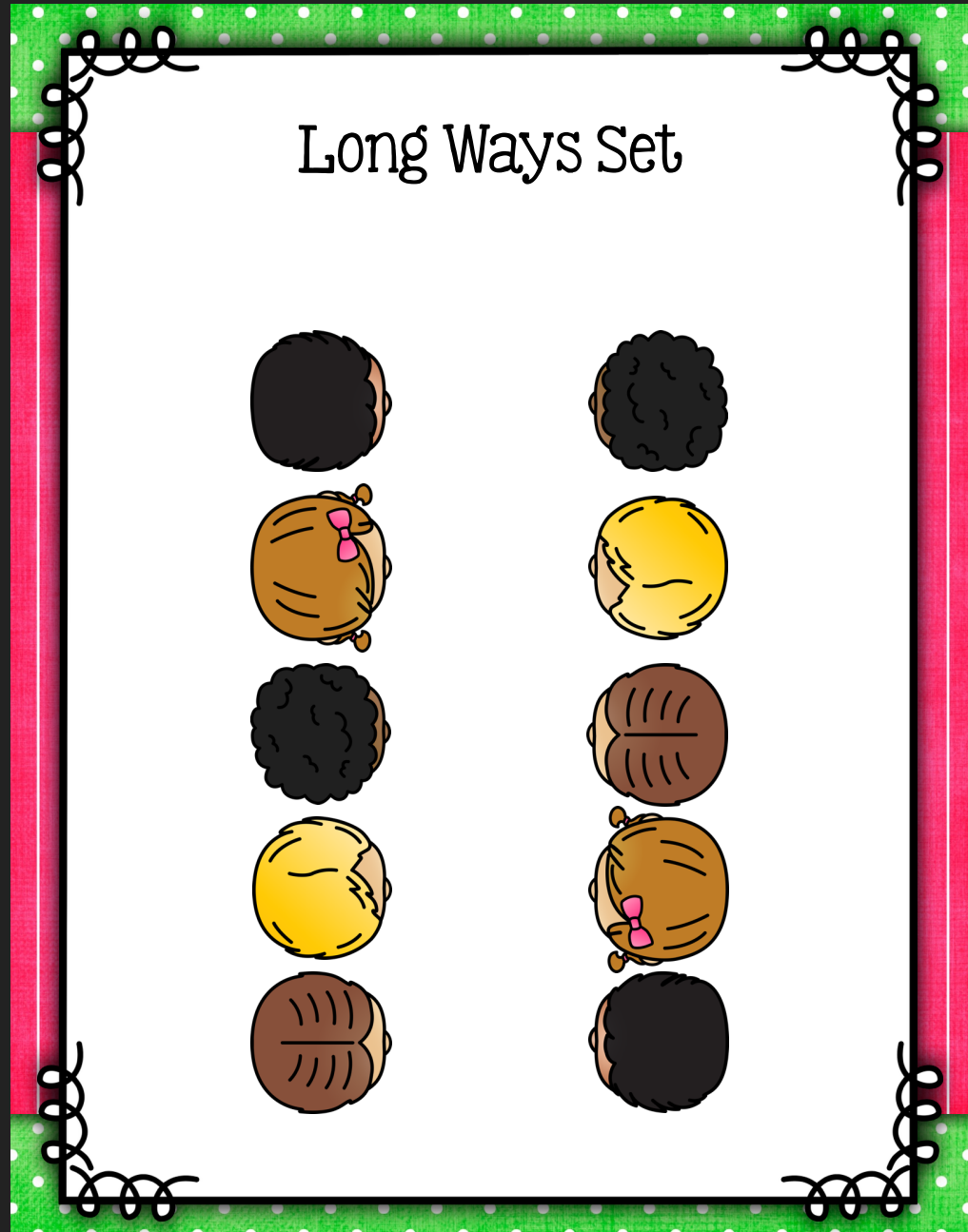
## TEACHING GEOMETRY THROUGH DANCE

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### ALABAMA GAL



# ALABAMA GAL



## ALABAMA GAL

- ▶ Verse 1

Head couple **sashays** down and back (16)

- ▶ Verse 2

**Right hand turn** partner (8)

**Left hand turn** partner (8)

- ▶ Verse 3

**Cast off** (16)

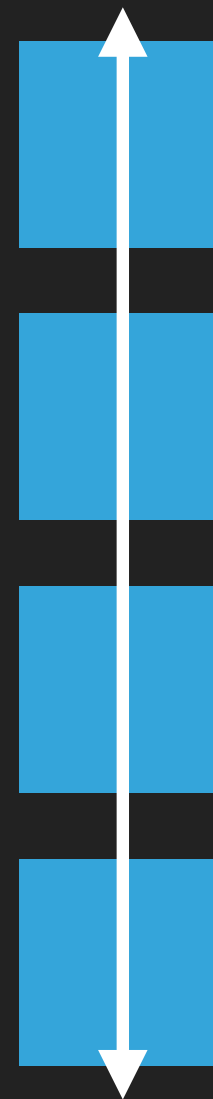
- ▶ Verse 4

Head couple **makes a bridge** and the set passes under

**RIGHT AND LEFT HAND TURN:  
REFLECTION AND ROTATION AROUND A VERTEX**



**LONGWAYS SET:  
TWO PARALLEL LINES**

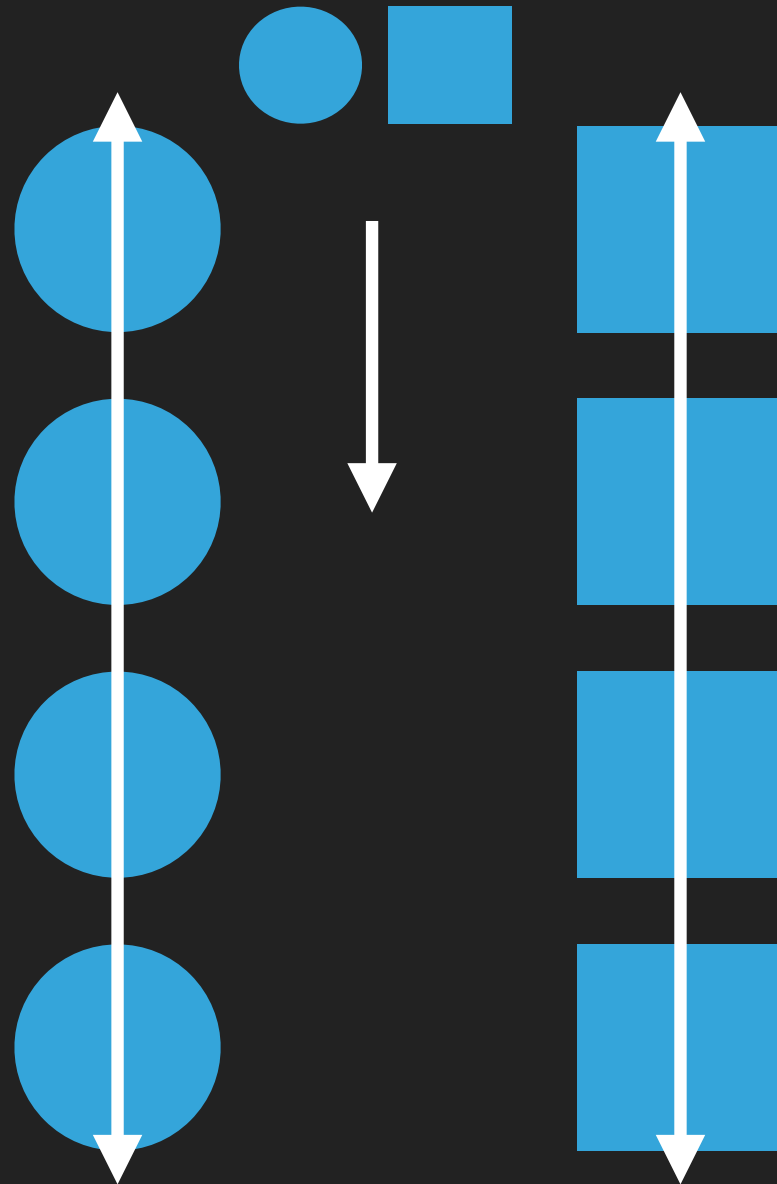


# TEACHING GEOMETRY THROUGH DANCE

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SASHAY:

TRANSLATION ALONG A FIXED PATH



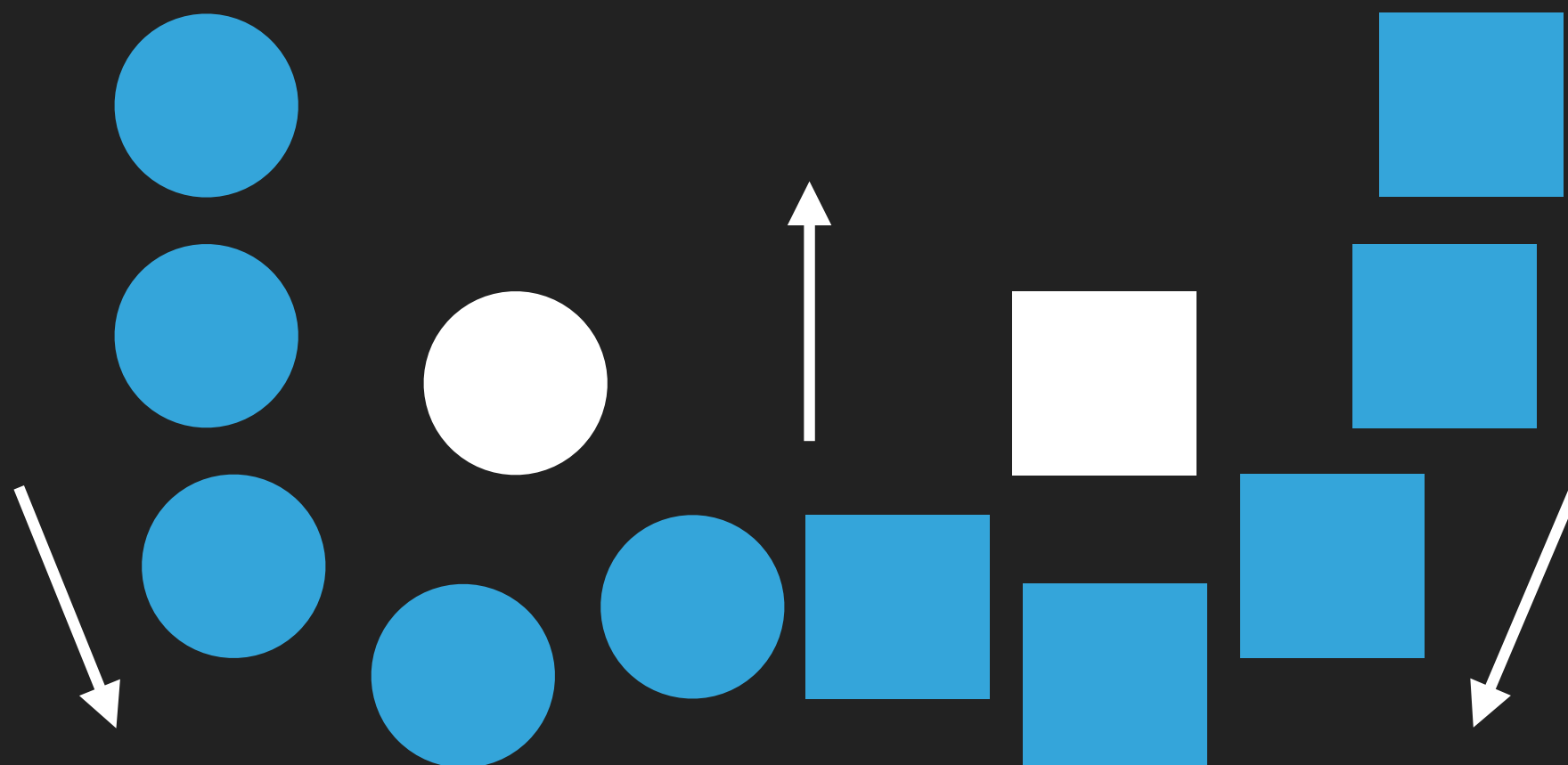


# TEACHING GEOMETRY THROUGH DANCE

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CASTOFF AND MAKE A BRIDGE:

A PARABOLA....?



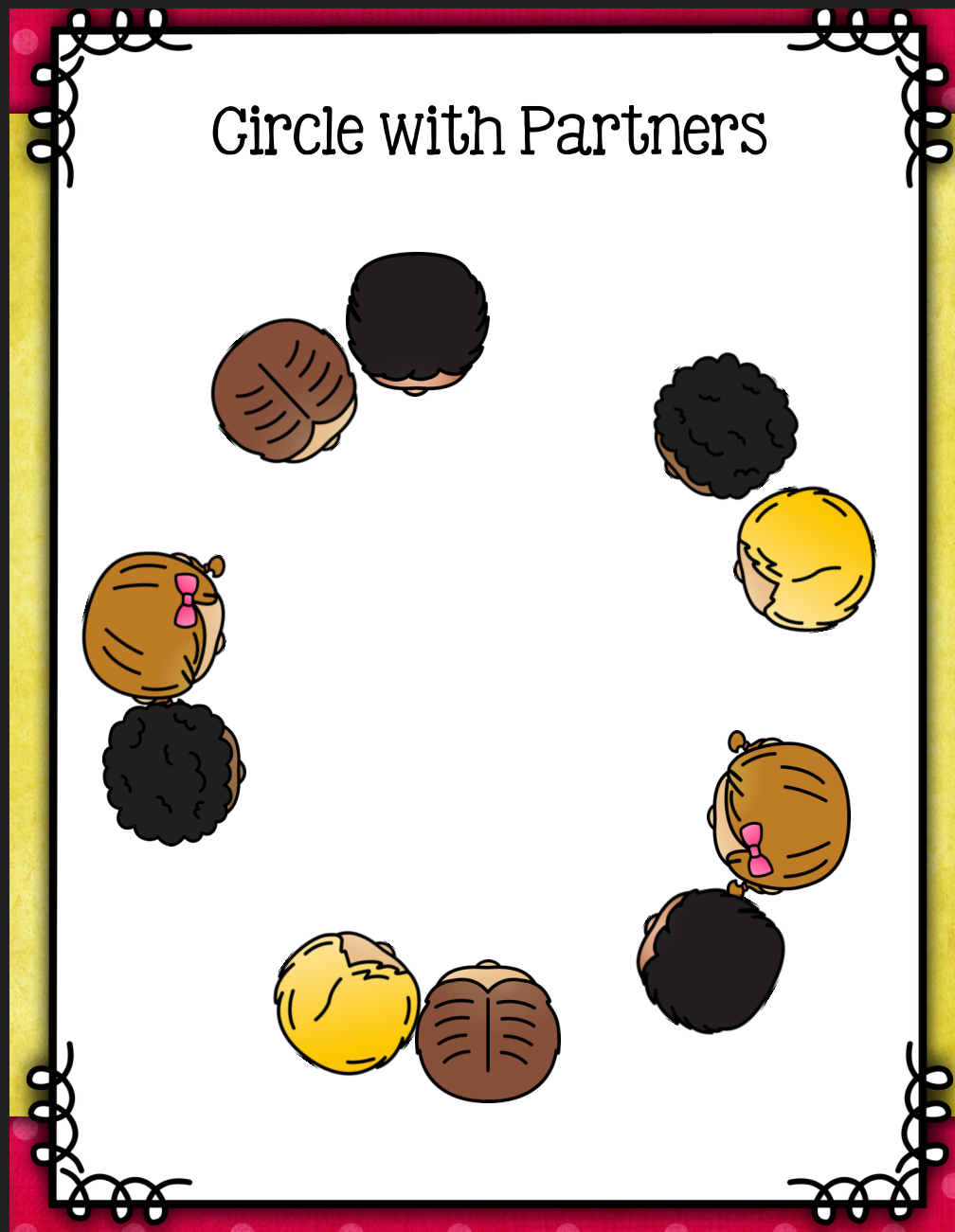
## TEACHING GEOMETRY THROUGH DANCE

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### HEEL TOE POLKA



## HEEL TOE POLKA



# HEEL TOE POLKA

### ▶ A (16)

Partners face each other and join hands.

(**"Suns" faces clockwise and "Moons" face counterclockwise**)

With the INSIDE foot perform this pattern:

Heel and toe, heel and toe (4)

**Sashay** three times towards the center and stop (4)

Repeat the pattern with the OUTSIDE foot to return to home

### ▶ B (16)

Clap hands with Partner

Right, right, right (2)

Left, left, left (2)

Both, both, both (2)

Knees, knees, knees (2)

Turn by the right hand one time around (**allemande right**) then **pass by** right shoulders and take the hands of your new partner to begin again

**ALLEMANDE RIGHT:  
REFLECTION AND ROTATION AROUND A VERTEX**



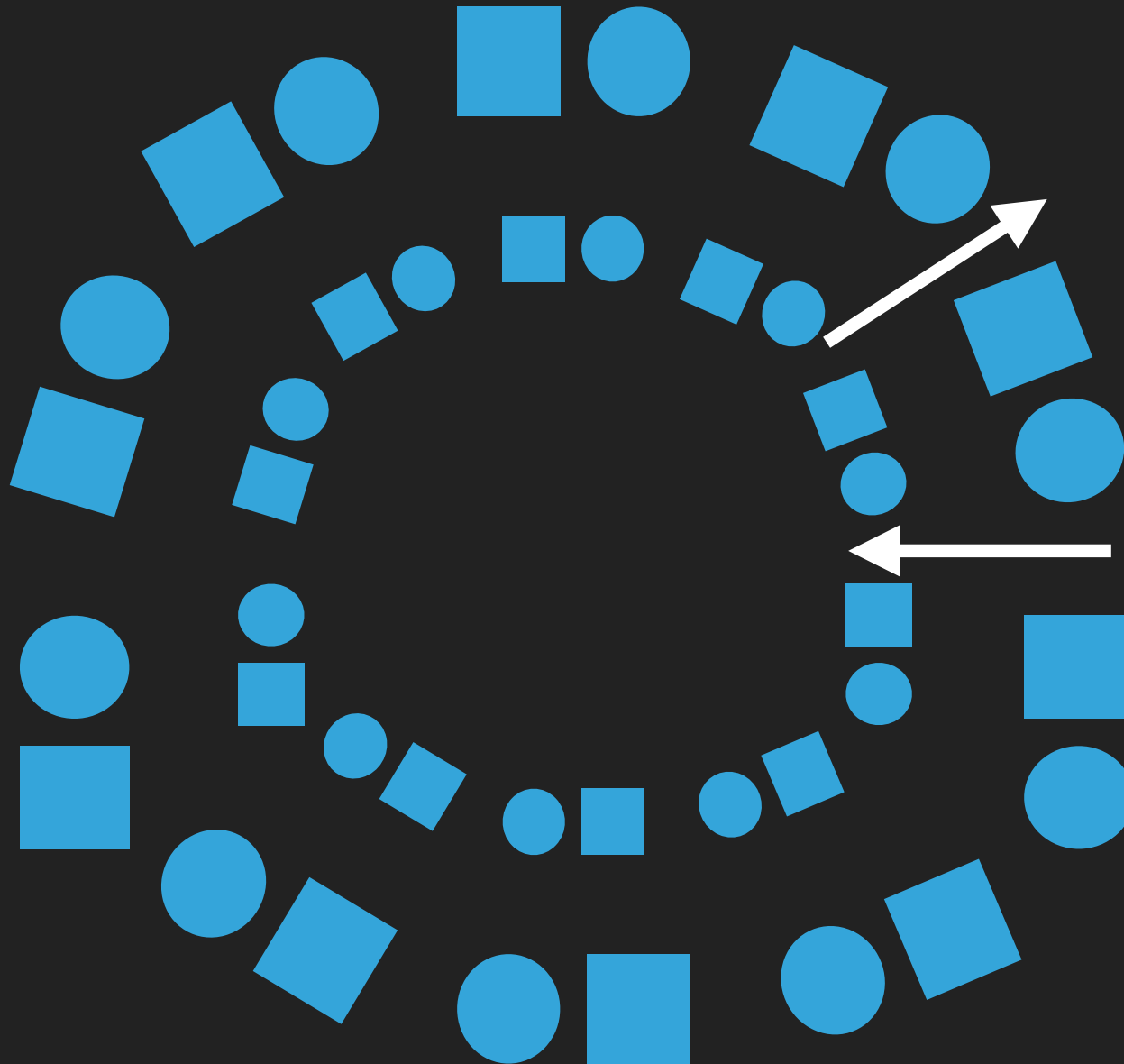


# TEACHING GEOMETRY THROUGH DANCE

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## FORWARD AND BACK:

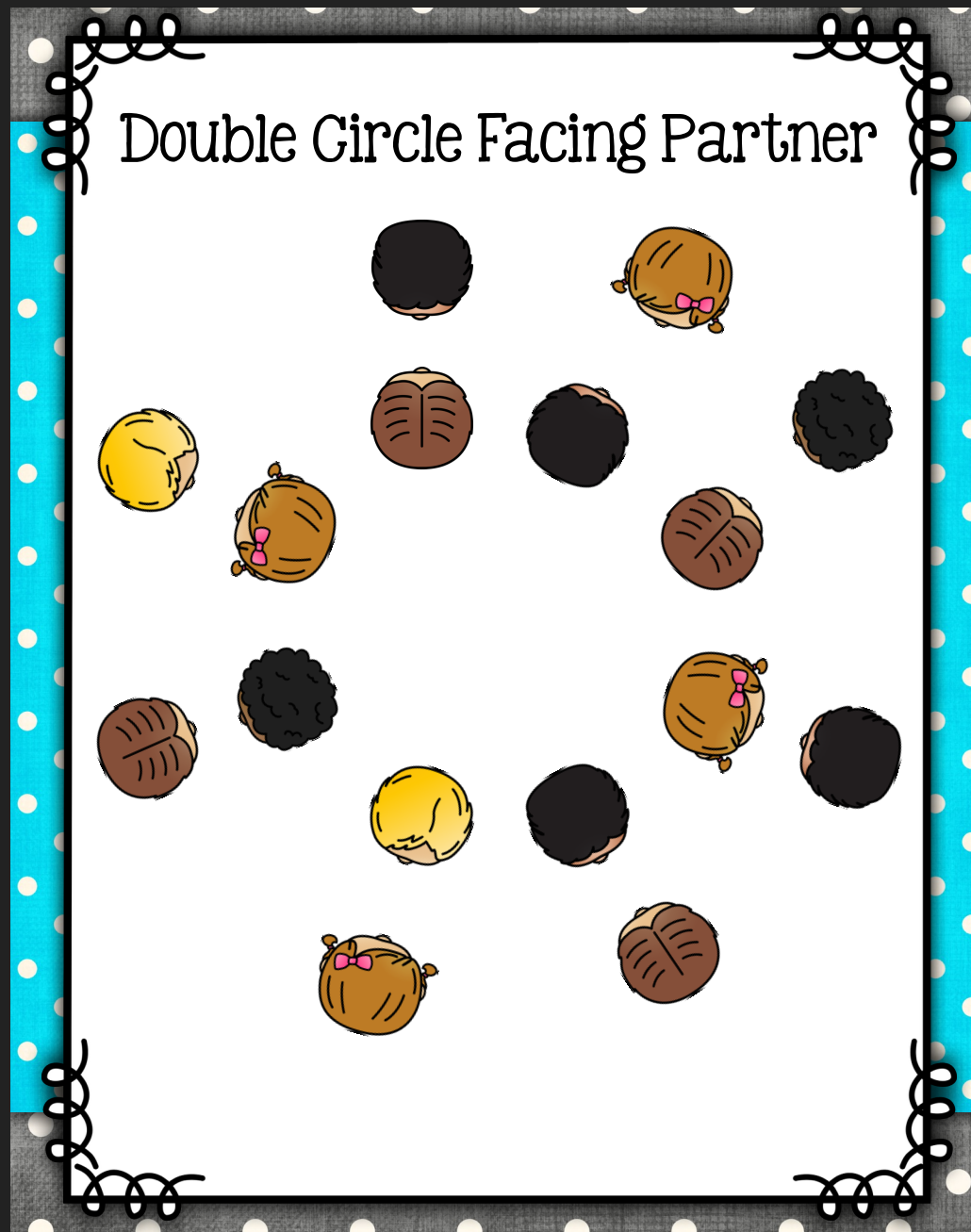
## COMPRESSION AND DILATION



## SASHAY THE DONUT



# SASHAY THE DONUT



# SAHSAY THE DONUT

### ▶ A1 (16)

All **dosido** partner (8)

**Right hand turn** partner (8)

### ▶ A2 (16)

**Left hand turn** partner (8)

**Two hand turn** partner (8)

### ▶ B1/2 (32)

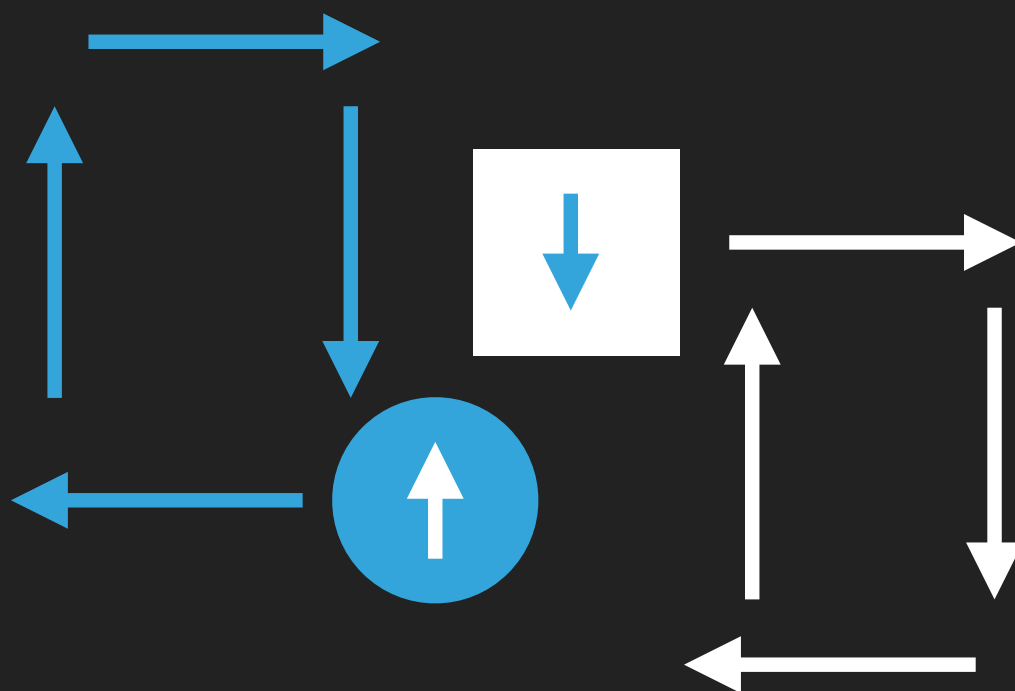
The designated **first couple** takes hands and **sashays** down the **alley**. The next couple follows creating a **cascade**. The first couple comes **back to home** and quickly releases hands so that the second couple and return home. The rest of the circle follows and the form begins again with the first head couple becoming the last couple.

**RIGHT/LEFT/TWO HAND TURN:  
REFLECTION AND ROTATION AROUND A VERTEX**





## DOSIDO: TRANSLATION



## LUCKY SEVEN



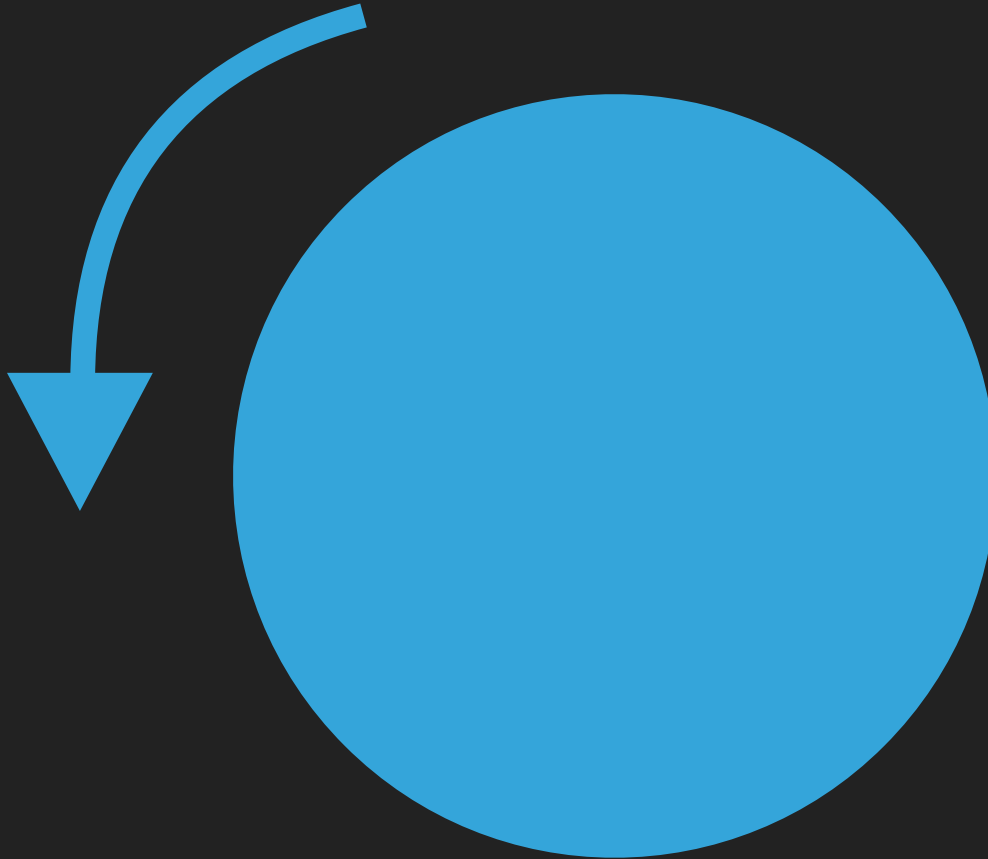
# LUCKY SEVEN



# LUCKY SEVEN

- ▶ A1 (16)  
All **circle left** (8)  
All **circle right** (8)
- ▶ A2 (16)  
All **forward and back** (8)  
Face partner, take right hands and get ready to **Grand Right and Left** (8)
- ▶ B1 (16)  
“Suns” **Grand right** and “Moons” **left**, passing six people and stopping on the seventh.
- ▶ B2 (16)  
**Promenade** with your new partner with MOONS on the inside (12)  
All join hands and get ready to begin again (4)

## CIRCLE RIGHT AND LEFT: GIANT ROTATION



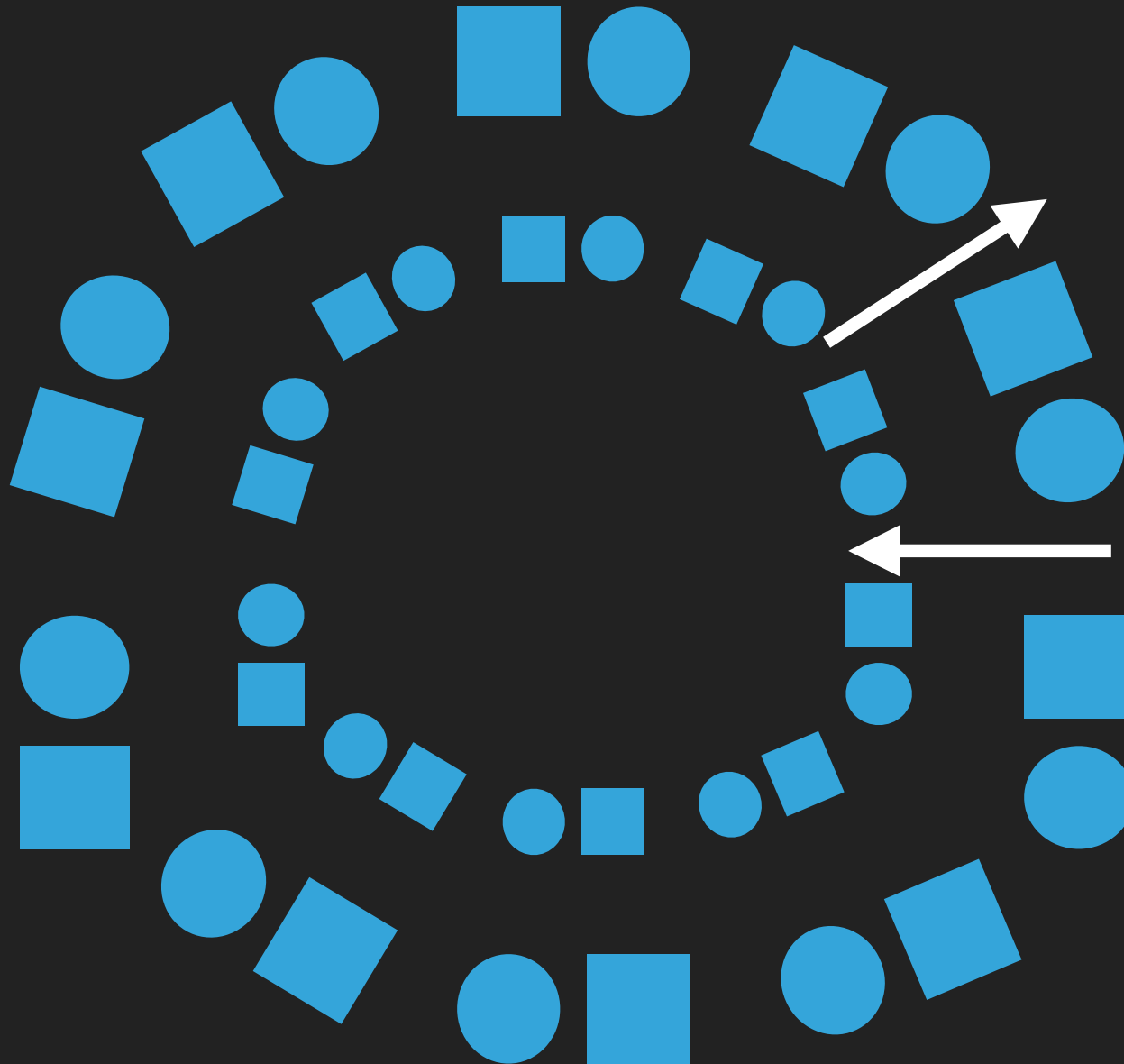


# TEACHING GEOMETRY THROUGH DANCE

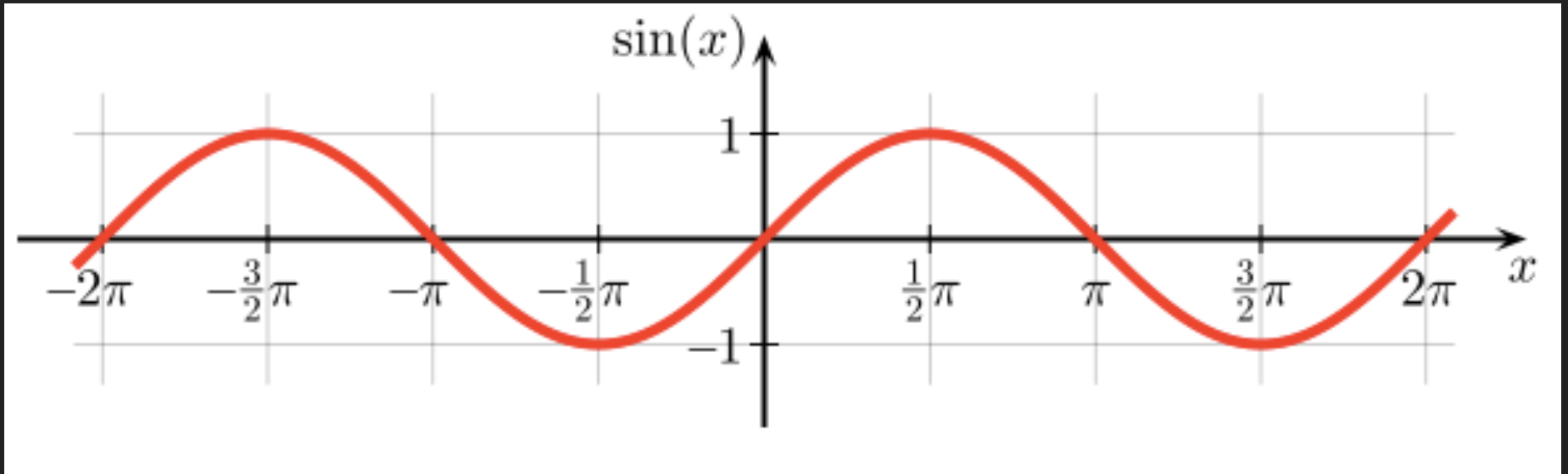
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FORWARD AND BACK:

COMPRESSION AND DILATION



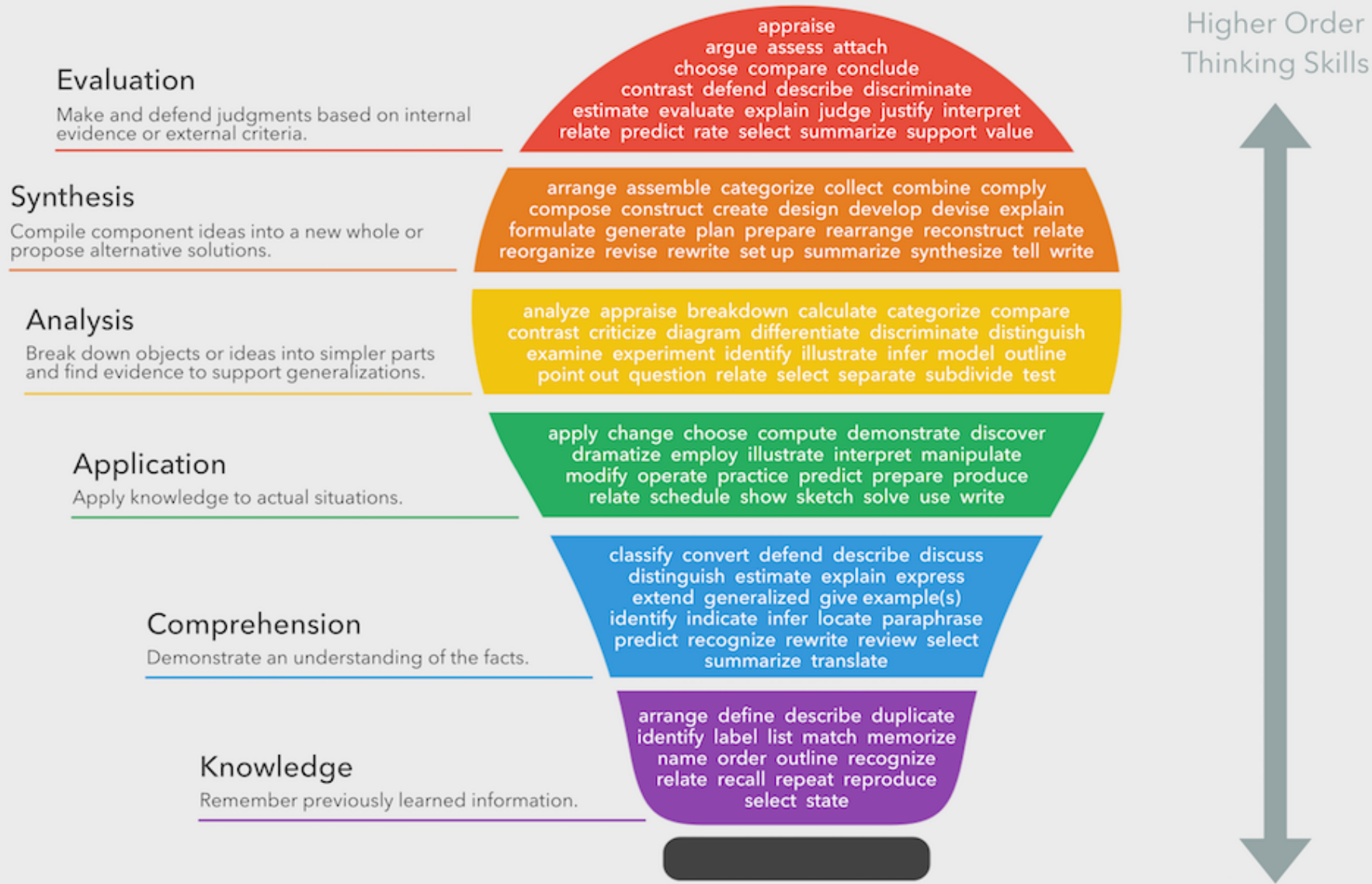
## GRAND RIGHT AND LEFT: SIN AND COSIN WAVES!



## SO HOW CAN WE EXTEND IT?



# TEACHING GEOMETRY THROUGH DANCE



### STUDENTS CAN....

- ▶ **Defend** their dance move choices in a class discussion
- ▶ **Compose** a dance using Geometry vocabulary
- ▶ **Analyze** a new dance to find Geometry vocabulary
- ▶ **Demonstrate** Geometry Vocabulary using dance moves
- ▶ **Classify** dance moves using Geometry vocabulary
- ▶ **Describe** Geometry vocabulary using dance moves

## QUESTIONS?





# RESOURCES

- ▶ New England Dancing Masters  
<http://dancingmasters.com>
- ▶ National Core Arts Standards  
<http://www.nationalartsstandards.org>
- ▶ The Google Drive  
<https://tinyurl.com/NCTMdanceandgeometry>
- ▶ Folk Dance Posters  
<https://www.teacherspayteachers.com/Product/Folk-Dance-Formation-Posters-2491932>
- ▶ My blog  
[kodaimusic.wordpress.com](http://kodaimusic.wordpress.com)
- ▶ My contact information:  
[kodai.musicmaker@gmail.com](mailto:kodai.musicmaker@gmail.com)
- ▶ Music Playlist: check the google drive, titles and links to the music will be in there!