

# Challenge #1

## Knot or not?

This is a 10 ft length of rope.



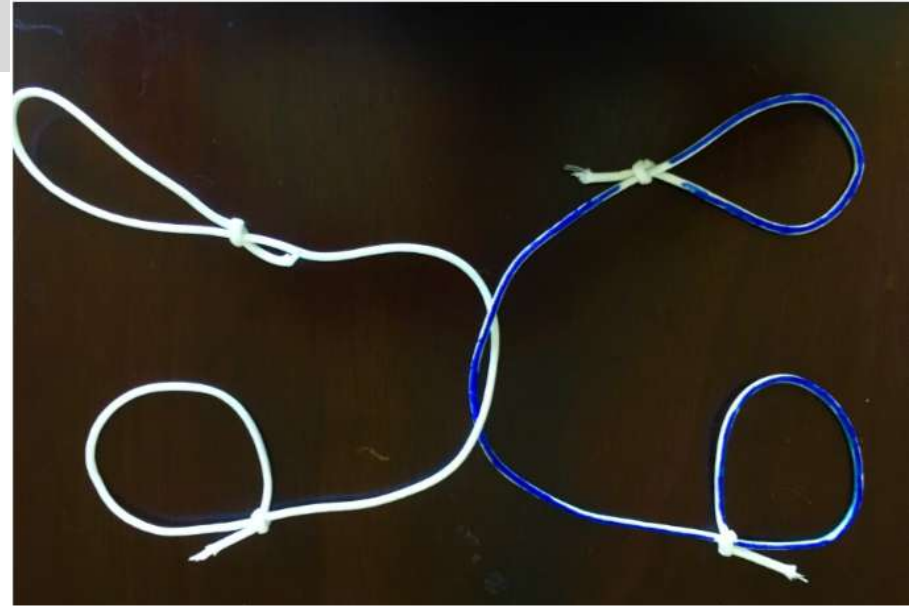
As you come into class, you see this set up. Ms. Sherman tells you that your challenge is to determine if this will form a knot, or not, once the 2 ends are pulled - **WITHOUT TOUCHING** the rope!

As a group, come up with an answer and be ready to defend it, whole group.

## Challenge #2

# Shackles

As a group, determine the best method for untangling the shackles, in the least amount of time.

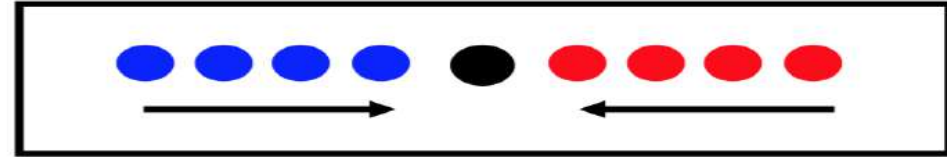


- Each student will be given a "shackle", and will start in the position shown in the picture above, hands through the loops (towards their partner) with their partner.
- The goal is to figure out how to separate their shackles without ever taking any hands out of the loops.

# Challenge #3

## Traffic Jam

### Introduction

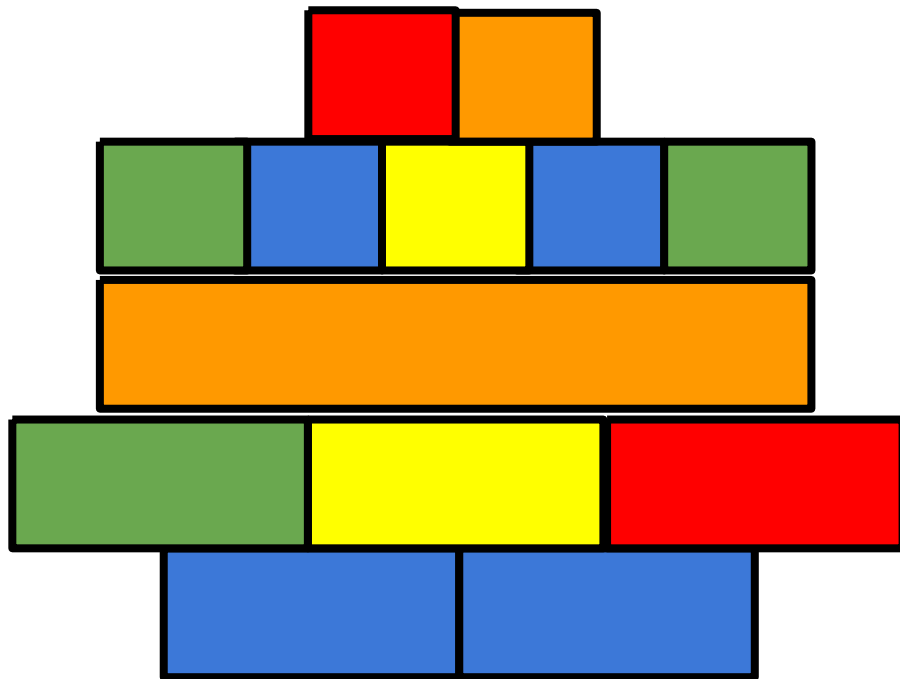


- This challenge requires critical thinking and creativity to solve.
- Their task is to have each side cross to the other side (red goes where blue is, blue goes where red is), only moving within the rules below.
- Rules:
  - \* One person per spot
  - \* Only forward moves allowed (as in the direction of the arrows above).
  - \* One move at a time
  - \* The only moves allowed are one spot forward and skipping one spot. Again, these are only forward and not to result in two people/spot.
- Hint #1: The end order should be the same as the beginning order, just on the opposite side.
- Hint #2: Once moved forward, team members from the same side should not be next to each other until the end.

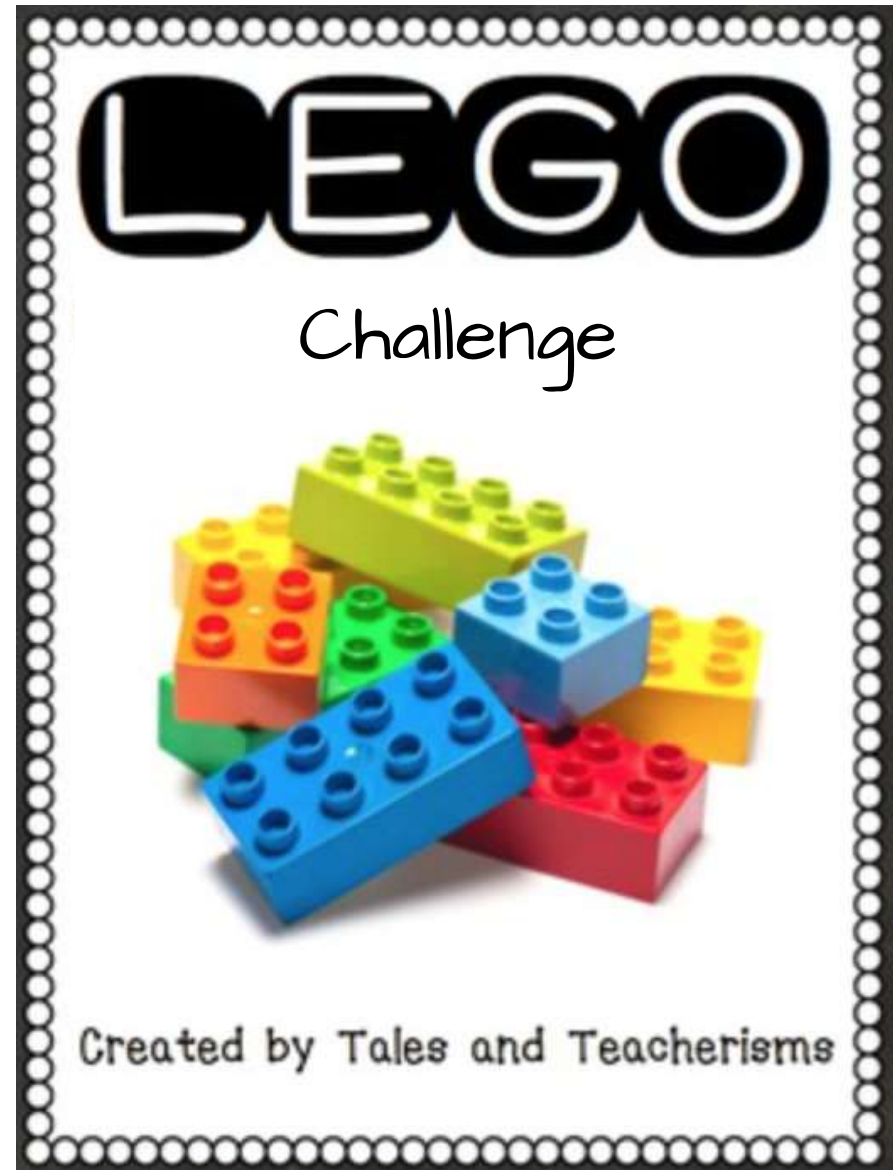
# Challenge #4

## Building Communication

This is the shape/object that would be built:



Cont'd on next slide!



# Procedure

- Partners will sit back to back and must not peek over their shoulder.
- One person in the pair will get up to 2 min to build their sculpture.
- They will then get up to 7 minutes to describe their sculpture, piece by piece, in a way that their partner can build a replica. They can ask clarifying questions but cannot peek at each others pieces until they have put all the pieces in place and feel done.
- They have a minute in between turns to look at the sculpture and replica and discuss face to face how the first round went.
- They switch roles and build a new sculpture and replica.
- The challenge can be repeated, always with a new sculpture.

As a group, determine how you would give directions to the partner. Try to give the fewest possible directions, but still be able to build the object.