



Action Based Learning

STEM Activities

for families



TULSA HEALTH
Department
School Health Program

Shape Toss

Materials

- IAK Shape Cards
- Masking Tape
- Throwing Object (bean bag or ball)

Bean bags can be created using zip lock bags filled with rice and duct tape the opening.

Set Up

- Tape 3 to 4 IAK Shape Cards in a row on the floor.
- Participants will toss the bean bags onto specific shape.
- The participant will make a tally mark next to the shape they landed on.
- They will continue tossing the bean bags onto the IAK Shape Cards for 3-5 minutes.
- Once the time is up the participant will count the tally marks for each shape.
- Participants can practice other mathematical operations by adding each of the shapes together or subtracting each of the shapes from the total number.

Variation: Write spelling, sight, or vocabulary words in shapes. When a bean bag lands on a shape, spell, say or define the word.

Beach Ball Catch

Materials

- IAK Fitness Cards
- Beach Ball (any ball type)
- Write numbers 0 – 10 randomly all over the ball.

Write larger number range for older participants.

Set Up

- Spread the IAK Fitness Cards face down on the ground.
- Participant will throw and catch the ball.
- The participant will look at the number that their thumbs (right and left) land on.
- Younger participants will identify the numbers their thumbs (right and left) landed on. This will determine the number of exercises to be done.
- Participant will draw an IAK Fitness Card and perform the exercise.
- Older students can work on any mathematical operation (addition, subtraction, multiplication).



Bean Bag Distance

Materials

- 1 to 2 Bean Bags/Rice Bags
- Measuring Tape or Yard Stick
- Masking Tape

Set Up

- Tape 5 to 6 X's on the floor in different locations.
- Participant will stand in one spot (starting point) tossing their bean bag to a chosen X.
- Participant will then use the measuring tape to measure the distance from the starting point to their bean bag.
- Participant will then use the measuring tape to measure the distance from where the bean bag landed to the chosen X. If the bean bag landed on the chosen X then no measurement is taken.
- Repeat until participant has attempted to hit every X.

Variation: Participant can create a map of their X's and add up the total distance. For example: Measure the distance from the starting point to the first chosen X. Add the distance from the starting point to the second chosen X. Continue until all measurements have been recorded and add the numbers together. Convert the measurements (centimeters, inches, feet, yards).



Color Jump

Materials

- IAK Shape Cards
- IAK Picture Cards

Set Up

- Spread IAK Shape Cards randomly on the floor within a couple of inches.
- Participant will draw an IAK Picture Card.
- Participant will jump to an IAK Shape Card that represents the colors on the IAK Picture Card.
- Continue these steps until there are no more IAK Picture Cards.

Variation: Use different picture cards for participants to identify colors.





Paper Airplane Distance

Materials

- Printer Paper
- Tape Measure or Yard Stick
- Masking Tape

Set Up

- Participants will fold paper into a paper airplane.
 1. Fold paper in half vertically.
 2. Unfold the paper and fold each of the top corners into the center line.
 3. Fold the top edges into the center line.
 4. Fold the plane in half toward you.
 5. Fold the wings down, matching the top edges up with the bottom edge of the body.
- Participant will stand in one spot (mark spot on floor with masking tape)
- Participant will throw their airplane.
- Participant will measure the distance from the spot in which they were originally standing to the spot their airplane landed.

Variation: Convert the measurement (centimeters, inches, feet, yards).



Bean Bag Knock Down

Materials

- 8 – 10 Plastic Cups
- Marker
- Bean Bag, Small Ball or Rice Bag

Set Up

- Write one number 1 – 8 or 1 – 10 on each of the plastic cups.
- Participant will stack the cups into a pyramid.
- Participant will stand back from the cups and aim to knock down the pyramid.
- Participant will collect the cups that were knocked down and add, subtract, or multiply the numbers on the cups with the numbers on the other cups knocked down.

Variation: Participants can also add, subtract, or multiply the numbers on the cups still standing. Write random larger numbers on the cups for more advanced participants.

