ACTIVE PLAY – ACTIVE LEARNING

Playground Markings Guide

active play
active learning

UTHealth
The University of Texas Health Science Center at Houston
School of Public Health

MICHAEL & SUSAN DELL CENTER *for* HEALTHY LIVING

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Active Play-Active Learning Project

Playground Markings Guide

OVERVIEW

The Active Play-Active Learning Project aims to promote student's enjoyment of and participation in physical activity during class time, recess time and other break times during the school day. Developed by a partnership among researchers at the University of Texas School of Public Health, classroom teachers, PE teachers, and local artists, the Active Play-Active Learning Project (APAL) provides free resources for school stakeholders to 'activate' active learning at their school, which includes both the incorporation of opportunities for fun, active play as well as opportunities to reinforce academic learning via physical activity. The three core strategies of Active Play-Active Learning include a peer-led games process, classroom-based brain breaks, and playground markings designs and activities. This guide describes the *APAL Playground Markings* component.

The focus of the *APAL Playground Markings* component is to enhance the physical environment with colorful and engaging playground markings designs (e.g., maps, multiplication tables, hopscotch) in order to both promote active play during recess time as well as provide an 'outdoor classroom' for teachers to engage students in "active" learning around geography, math, science, and reading.

Key activities of the *APAL Playground Markings* component include:

- *Forming a playground markings design team* composed of classroom and PE teachers, administrators, the art teacher, and/or other interested school stakeholders.
- *Developing a design plan*, which includes selecting playground markings designs and identifying outdoor spaces to be enhanced with markings.
- *Recruiting a team of volunteers* to assist with painting markings.
- *Gathering materials* for the paint day (e.g., stencils, paint, brushes, snacks/water).
- *Painting the designs* (including preparing outdoor spaces for markings and providing brief training of volunteers on how to use stencils).
- *Promoting use* of markings with teachers and students.

The following guide includes:

- ✓ a brief overview of considerations for implementing a playground markings initiative at your school,
- ✓ recommendations for painting playground markings designs, and
- ✓ a variety of active learning activities for teachers to reinforce academic topics and concepts. Activities are organized around: geography, math, English/language arts, and science.

We encourage teachers, educators and other stakeholders interested in promoting physical activity and 'active learning' with children and adolescents to build from this guide and develop your own active learning activities, develop additional designs, and explore processes that help support and grow this initiative at your school (for example, sharing a playground marking 'active learning' activity at a faculty meeting). Thank you for supporting both the physical health and active learning of your students!

BEFORE YOU BEGIN: CONSIDERATIONS FOR IMPLEMENTING A PLAYGROUND MARKINGS INITIATIVE

There are several issues to think about before embarking on this project.

1. *Commitment*: The school should have an understanding that this endeavor is a process and requires the commitment of the school and its personnel. This process works best when there is collaboration and involvement of the school faculty and staff and the parents/community. It is not advisable to take on this project without administrative support or buy in from teachers.

2. *Project Leadership & Design Team*: It is critical to have a project leader from the campus that will be involved in the process from start to finish. Additionally, it is important that thought is given to the intent of the playground markings. That is, how the school anticipates using the markings. For instance, if the markings are to be used during recess times, consideration must be given to the placement of the markings so that they are located in places accessible during recess (e.g., not in areas where PE class is held). The project leader in collaboration with the faculty/staff and administration should determine the primary intent of the markings prior to initiating the painting process. We recommend the formation of a design team that includes key school stakeholders (e.g., administrators, classroom teachers, PE teachers, art teachers, students, parents) in order to ensure that the markings reflect and support the interests of the larger school community.

3. *Training*: Training is an integral piece of the process as well. Consideration should be given as to how to orient and train teachers to utilize the markings during recess times and/or to augment instruction in the classroom by reinforcing content with activity-based learning. Training should include not only how to use the markings, but also incorporating teacher reinforcement cues to promote physical activity.

PREPARING FOR & PAINTING THE PLAYGROUND MARKINGS

- *Artist Consultant*: In addition to having a project leader from the school and a design team, it is also recommended to have an artist consultant involved in the process to assist with layout design and the actual painting process. The artist consultant, along with the project leader and other school representatives, can help develop a layout design plan that details where the playground markings will be located. Furthermore, the artist consultant is instrumental in planning and carrying out the painting process. The artist can provide information and insight into the materials needed for painting, how many volunteers may be needed, and instruction on painting technique, among other things.

  Ground Preparation: Prior to painting the markings, the areas to be painted need to be cleaned and swept as much as possible. The paint will adhere best to a clean surface. Ideally, the areas to be painted should be power-washed and allowed to dry completely before any paint is applied (e.g., a day or two before painting). Additionally, on the day

- Painting will take place it is recommended that the area be swept and/or cleaned again with a leaf/yard blower to remove any loose dirt, etc. shortly before applying paint.
- *Volunteers*: Having school staff and parent volunteers involved in this aspect of the project is essential. The painting process will go much faster and more smoothly if parent/school volunteers help paint the markings. Depending on how many markings will be painted, it is a good idea to have 6-10 volunteers at any one time. Having volunteers plan to be available for at least a couple of hours or more is helpful. The painting process typically occurs in phases with the organization and preparation happening at the outset. For instance, confirming the placement of the markings, sweeping/blowing the areas to be painted, organizing and preparing the paint supplies (e.g., brushes, water, etc.). In addition to the volunteers being available, it is extremely helpful to have the Artist Consultant and Project Leader on hand the entire time. One note about volunteers: we found that painting the markings requires a fair amount of attention to detail and is best if adults do the actual painting. Therefore, as much as this project is for students and involves students, it is not necessarily the advantageous to have them involved in this aspect of the project.

SELECTING PLAYGROUND MARKING DESIGNS

Several playground markings designs are available for use on school grounds. We encourage schools to be creative and seek out designs that fit their specific needs as well as develop their own designs. In doing so and as stated above, we highly recommend the formation of a design team comprised of key school stakeholders to inform the selection and placement of the markings. Below is the current list of the markings available from the Active Play-Active Learning Project. The activities provided in this guide are based on these designs:

- US and/or World Map
- Multiplication Table
- Hundreds Chart
- Bulls-Eye
- Clock
- Compass
- Solar System
- Ruler
- Alphabet
- Skip Count Patterns
- Jump Patterns
- Locomotor Movement Patterns

ACTIVE PLAY - ACTIVE LEARNING PROJECT
TEACHER VERBAL REINFORCEMENTS to PROMOTE USE OF MARKINGS

Teachers play a key support role with promoting children's active play and active learning with playground markings. In addition to directly facilitating children's engagement in active learning activities using playground markings- as described in the following sections, teachers can actively support and promote children's physical activity engagement using positive verbal cues and reinforcement. Below we provide examples of positive verbal reinforcements for teachers to promote active play and active learning using playground markings.

Before Activity Time/Recess:

- "Remember boys and girls, our goal for recess is to stay active for the entire time!"
- "Don't forget to try the new playground marking games that we have learned!"
- "I will be watching to see who is working together as a team to play a game!"
- "How many laps around the track are you going to run today? Is that a new goal for you?"
- "Who played a game on the U.S. Map this week? What game did you play?"
- "Who played a game on the Hundreds Chart this week? What game did you play?"
- "Who played a game on the World Map this week? What game did you play?"
- "I hope everyone is working on their jump rope skills this week."
- "What game are you going to play on the Multiplication Chart today?"

During Activity Time/Recess:

- "*Name of student*, I did not know you were so good at *name of activity*! Where did you learn how to do that?" "Did you learn that in P.E.?
- "I love the way the *color or number* group is using their teamwork skills to play!"
- "*Name of student*, your jump rope skills are amazing! How many foot patterns do you know?"
- "I see *name of student* jumping rope! Who can jump as long as he/she can?"
- "*Name of student*, what is the name of that game? I love the way everyone is constantly moving!"
- "Who can run 5 laps without stopping? I am watching!"
- "*Name of student*, have you ever tried the game that *name of student* is playing? Why don't you join them?
- "Look at the group on the U.S. map! That is a great game they are playing!"
- "Who wants to organize a game on the Multiplication Chart? *Name of student*, why don't you organize that?"
- "How many different foot patterns can you use as you are playing today? I will be watching you!"

After Activity Time/Recess:

- "*Name of student*, I saw you run *number* laps today! Great job! How does that make you feel?"
- "I was watching *name of student* as he/she jumped rope. I saw *number* of foot patterns and he/she never stopped jumping!" What a fantastic job!

GEOGRAPHY

Geography Games

US Map

Where Am I?

- Instruct students to follow specific north, south, east, and west directions. Then have students identify their final location. Directions may be oral or written. See sample Where Am I? sheet.
- Variation: have students work in pairs. One student is blindfolded (or closes their eyes) before being given directions. Have sighted student assist the blindfolded student travel across the map. After following directions, have the blindfolded student predict/guess where they are. Sighted student can assist by giving clues about the state/location (e.g., it borders the Atlantic Ocean, this state has the Grand Canyon, the capital of the state is _, etc.).
- Variation: have pairs of students work together to plan a set of directions to get from point A to point B. Have each pair trade directions with another pair to check for accuracy.
- Variation: have students travel using different locomotor movements (e.g., hopping, lunge walk, high knees, etc.) to increase the activity level. Or, after each step of the instructions, have students perform a task before going to the next instruction (e.g., do 5 jumping jacks, or 3 squats, etc.).

1) Start in Michigan 2) Go WEST for 4 states 3) Go SOUTH for 2 states 4) Go EAST for 5 states 5) Then, go NORTHWEST for 3 states Name the state you're in	1) Start in Texas 2) Go NORTH for 4 states 3) Go EAST for 2 states 4) Go SOUTH for 3 states 5) Then, go SOUTHEAST for 2 states Name the state you're in
1) Start in Maine 2) Go SOUTHWEST for 7 states 3) Go NORTH for 2 states 4) Go WEST for 5 states 5) Then, go SOUTH for 1 state Name the state you're in	1) Start in Florida 2) Go NORTH for 5 states 3) Go WEST for 5 states 4) Go SOUTHWEST for 2 states 5) Then, go EAST for 2 states Name the state you're in
1) Start in North Dakota 2) Go SOUTH for 4 states 3) Go EAST for 3 states 4) Go NORTH for 2 states 5) Then, go WEST for 8 states Name the state you're in	1) Start in California 2) Go EAST for 4 states 3) Go NORTH for 2 states 4) Go SOUTHEAST for 4 states 5) Then, go SOUTH for 1 state Name the state you're in

1) Start in Washington 2) Go SOUTH for 2 states 3) Go EAST for 4 states 4) Go SOUTH for 2 states 5) Then, go WEST for 2 states Name the state you're in	

Frequent Flier

- Each student starts with their own color beanbag and/or cones (or some other equipment to mark where they've been).
- Using the beanbags/cones as markers, students visit as many designated locations on the map as possible within a certain time limit (30 seconds to 1 minute). See sample Frequent Flier Plane Tickets sheet.
- Teacher will need to monitor the activity and determine if students visited the correct locations. You can give students another opportunity to visit a location they got incorrect if they buy another 'plane ticket'. To buy a 'plane ticket' the students must do 10 jumping jacks or 5 push-ups, or some other exercise.
- Variations: Switch plane ticket sheets among the students and play again. Designate a locomotor movement students must use to travel (e.g., skipping, hopping, etc.).

Collect 10 Frequent Flier Miles for every location visited. How many miles can you get?	**Collect 10 Frequent Flier Miles for every location visited. How many miles can you get?**
1) Iowa 2) A state that borders the Pacific Ocean 3) South Dakota 4) Louisiana 5) Idaho 6) Georgia 7) Minnesota 8) A state in the northeast	1) Wyoming 2) A state that borders the Atlantic Ocean 3) Oregon 4) A state that borders the Gulf of Mexico 5) New York 6) Utah 7) Michigan 8) California
Collect 10 Frequent Flier Miles for every location visited. How many miles can you get?	**Collect 10 Frequent Flier Miles for every location visited. How many miles can you get?**
1) Indiana 2) Arizona 3) A state east of the Mississippi River 4) Montana 5) Mississippi 6) A state that borders Canada 7) New Mexico 8) Pennsylvania	1) Ohio 2) A state in the southeast 3) Colorado 4) Vermont 5) A state that borders Mexico 6) Maryland 7) North Dakota 8) Washington

State Catch

- Locate specific states for students to stand. The teacher or another student can call out the names of the different states and students must toss a ball or beanbag to the correct state.
- Variation: Have students toss the ball and call out the location they are standing.
- Variation: To promote more movement, have students 'follow their pass'. Once a student passes the ball/beanbag to the next location, they immediately go to the location they passed to and wait to receive a pass at that location. Or, you can have students do a task (e.g., jumping jacks or squats) after they have passed the ball and are waiting for it to return to them.

Activity adapted from Marta J. Abele, University of Dubuque

Musical Map

For this activity, you will need a portable CD player near the map to play music.

- Have students scattered on different locations to start. When the music starts, students travel (walking, skipping, etc.) from location to location. When the music stops, students must stop and name the location they are standing on.
- Students who correctly identify the location get a point. Students who incorrectly identify the location must do 3 jumping jacks (or some other task).
- Continue the activity for several rounds.
- Variations: Have students name the capital or name a feature of the location they are on (e.g., capital of North Carolina is Raleigh, the Grand Canyon is located in Arizona, the Eiffel Tower is located in France, etc.).

Activity adapted from Marta J. Abele, University of Dubuque

Team Tracker

- Obtain copies of various teams' (professional leagues work best, e.g., NFL, NBA, etc.) game schedules. Have students travel from location to location according to the schedule.
- Have students name the states they cross as they travel from game to game.
- Variation: Have students travel from state to state dribbling a ball if following an NBA team. Have students pass a football from state to state if follow an NFL team.
- Variation: Students 'beat the clock' and see how many team locations they can visit and identify according to their mascots. Have students place a beanbag in every state they can visit.
    - NFL Example: Dolphins (Miami, FL), Cowboys (Dallas, TX), Bears (Chicago, IL), Patriots (near Boston, MA), Colts (Indianapolis, IN), 49ers (San Francisco, CA), Seahawks (Seattle, WA), Rams (St. Louis, MO), Panthers (Charlotte, NC), etc.
    - College Example: Longhorns (Texas), Crimson Tide (Alabama), Trojans (California), Cornhuskers (Nebraska), Fighting Irish (Indiana), Tar Heels (North Carolina), Gators (Florida), Buckeyes (Ohio), Razorbacks (Arkansas), Ducks (Oregon), Wolverines (Michigan), Badgers (Wisconsin), etc.

Activity adapted from Marta J. Abele, University of Dubuque

Presidential Pathways

- Provide students with the names of various US Presidents and some facts about the state they are from. Have students place a beanbag in each state they can identify. Students can work individually or in pairs.
- Students get a point for each state they can identify. Have students perform a task (e.g., 5 sit ups, 10 jumping jacks, etc. for every state they cannot identify.
- Variation: Students 'beat the clock' and see how many presidential states they can visit and identify according to their list. Have students place a beanbag in every state they can visit.

Find and travel to the states the following presidents are from. How many can you get?	**Find and travel to the states the following presidents are from. How many can you get?**
1) Abraham Lincoln HINTS: the state capital is Springfield & the 'Windy City' is located in this state, the state nickname is 'The Prairie State'	**1) George Washington** HINTS: the state capital is Richmond & it this state was the first of the original 13 colonies, the state nickname is "The Old Dominion State'
2) Thomas Jefferson HINTS: the state capital is Richmond & the end of the Revolutionary War occurred in this state at Yorktown	**2) Franklin D. Roosevelt** HINTS: the state capital is Albany & the Statue of Liberty is located in this state
3) Ulysses S. Grant HINTS: the Pro Football Hall of Fame (Canton) and the Rock & Roll Hall of Fame (Cleveland) are located in this state & Columbus is the state capital, the state nickname is 'The Buckeye State'	**3) John F. Kennedy** HINTS: Boston is the state capital & Plymouth Rock is located in this state (where the Pilgrims landed), the state nickname is 'The Bay State'
4) Theodore Roosevelt HINTS: the state capital is Albany & the 'Big Apple' is located in this state	**4) Jimmy Carter** HINTS: the state capital is Atlanta & the state nickname is 'The Peach State', it is the largest state east of the Mississippi River
5) Bill Clinton HINTS: the state capital is Little Rock & the state nickname is 'The Natural State, the southwest corner of this state borders Texas	**5) Harry S. Truman** HINTS: the state capital is Jefferson City & the state nickname is 'The Show Me State', the Gateway Arch is located in St. Louis
6) Andrew Jackson HINTS: the state capital is Nashville & the state nickname is 'The Volunteer State', the Great Smoky Mountain National Park is located in this state	**6) Ronald Reagan** HINTS: the state capital is Sacramento & the state nickname is 'The Golden State', this state is the third largest in the US

World Map

Continent Catch

- Locate specific continents for students to stand. The teacher or another student can call out the names of the different continents and students must toss a ball or beanbag to the correct continent.
- Variation: Have students toss the ball and call out the location they are standing.
- Variation: To promote more movement, have students 'follow their pass'. Once a student passes the ball/beanbag to the next location, they immediately go to the location the passed to and wait to receive a pass at that location. Or, you can have students do a task (e.g., jumping jacks or squats) after they have passed the ball and are waiting for it to return to them.

Activity adapted from Marta J. Abele, University of Dubuque

Olympic Host Cities

- Provide students with a list of cities that have (or will) host the Summer Olympic Games. Students identify the country of each Olympic host city and travel from location to location, placing a beanbag in each country.
- May need to provide other information/hints about each city and country to assist students in correctly identifying the locations.
    - Summer Olympic Examples: London (England 2012), Beijing (China 2008), Athens (Greece, 2004), Sydney (Australia, 2000), Atlanta (US, 1996), Barcelona (Spain, 1992), Seoul (South Korea, 1988), etc.
    - Winter Olympic Example: Vancouver (Canada, 2010), Torino (Italy, 2006), Salt Lake City (US, 2002), Nagano (Japan, 1998), Lillehammer (Norway, 1994), Albertville (France, 1992), etc.

Frequent Flier

- Each student starts with their own color beanbag and/or cones (or some other equipment to mark where they've been).
- Using the beanbags/cones as markers, students visit as many designated locations on the map as possible within a certain time limit (30 seconds to 1 minute). See sample Frequent Flier Plane Tickets sheet.
- Teacher will need to monitor the activity and determine if students visited the correct locations. You can give students another opportunity to visit a location they got incorrect

if they buy another ‘plane ticket’. To buy a ‘plane ticket’ students must do 10 jumping jacks or 5 push-ups, or some other exercise.

- Variations: Switch plane ticket sheets among the students and play again. Designate a locomotor movement students must use to travel (e.g., skipping, hopping, etc.).

Collect 10 Frequent Flier Miles for every location visited. How many miles can you get? 1) 2 countries in Europe. For 5 extra miles for each correct answer, name the countries you visited. 2) United States. For 5 extra miles, name the capital. 3) Antarctica 4) Australia 5) Russia	**Collect 10 Frequent Flier Miles for every location visited. How many miles can you get?** 1) Africa 2) 3 countries in North America. For 5 extra miles for each correct answer, name the countries you visited. 3) Japan 4) South America 5) China
Collect 10 Frequent Flier Miles for every location visited. How many miles can you get? 1) 2 continents that border the Pacific Ocean. For 5 extra miles for each correct answer, name a country from each continent you visited. 2) Africa 3) Brazil 4) Australia 5) A country that uses the Euro as currency. For 5 extra miles, name the country.	**Frequent Flier Sheet** (create your own)

Compass

Where in the World Is?

Due to the size of the compass marking, these games are best used in small groups (e.g., 3-5 students).

- Students start in the center of the compass. Identify the starting point as the city you are located in. The teacher calls out a state, country, river or city and the students then determine which direction that location is from their location. The students use the compass and move in the direction that matches their answer.
- Two to four groups of two can play this game. Divide the students into pairs. Each pair has a stack of cards with various places in the United States listed on them. One partner will call out a place and the other partner will move in the direction that location is from the city where they are currently located. The student should return to the center of the compass after each location. Switch roles after 3-4 locations.
- Variation: The teacher can choose another place of comparison other than where they are located. The games would work the same.

Geocaching

This activity is best with 8-10 students and requires 4-5 small objects that can be concealed in a closed hand.

- Have students pair up. Have one partner start in the center of the compass; the other partner is outside the compass and has a small object in their hand. To begin, students in the center of the compass will close their eyes while their partner goes and 'hides' their object somewhere in the vicinity of the compass. Once all objects have been hidden, the partners in the center will be instructed to open their eyes. The partner who hid the object will then attempt to guide their partner to the object they hid, but can only give directional instructions (e.g., move 6 steps south, now go 8 steps east, etc.). Once each partner group has 'found' their object, switch roles and play again.
- Variation: This activity would require advance preparations by the instructor. Prior to bringing students out to the compass, identify several small objects and 'hide' them somewhere in the vicinity of the compass marking. The teacher would then need to create directional instructions from the compass to guide students to the location of the objects (e.g., 5 paces N, then 6 paces SW, etc.).

MATHEMATICS

Math Games

100's Chart

Multiplication Table Team Challenge

Four to six groups of 2 can play this game. Each student has a beanbag.

- Each team/pair has a challenge task sheet (see sample provided). The teams must work through their challenge sheet in order.
- Teams work together to solve each multiplication problem. Once the team has determined the answer for a problem, they must then toss a beanbag to the correct answer. Only 1 beanbag from the team must land on the correct answer.
- If neither partner's beanbag lands on the correct answer, the team must do 5 jumping jacks to earn another toss.
- First team to finish gets a point. Distribute new challenge sheets and play again.

MULTIPLICATION CHALLENGE SHEET	**MULTIPLICATION CHALLENGE SHEET**
1) 2 x 4 =	1) 9 x 6 =
2) 3 x 5 =	2) 2 x 4 =
3) 6 x 5 =	3) 3 x 5 =
4) 11 x 2 =	4) 6 x 5 =
5) 7 x 7 =	5) 11 x 2 =
6) 8 x 4 =	6) 7 x 7 =
7) 12 x 1 =	7) 8 x 4 =
8) 9 x 6 =	8) 12 x 1 =
MULTIPLICATION CHALLENGE SHEET	**MULTIPLICATION CHALLENGE SHEET**
1) 12 x 1 =	1) 8 x 4 =
2) 9 x 6 =	2) 12 x 1 =
3) 2 x 4 =	3) 9 x 6 =
4) 3 x 5 =	4) 2 x 4 =
5) 6 x 5 =	5) 3 x 5 =
6) 11 x 2 =	6) 6 x 5 =
7) 7 x 7 =	7) 11 x 2 =
8) 8 x 4 =	8) 7 x 7 =

100's Chart Flash Cards (+, -, x, ÷)

- One student holds the flash cards. All other students have a beanbag.
- Flash card student holds up a card and individual students toss their beanbag to the answer.
- Students who get the correct answer and toss their beanbag to the correct number get 2 points. Students who get the correct answer but do not toss their beanbag to the correct number get 1 point. Students who do not get the correct answer must do 3 jumping jacks or another designated task (e.g., push-ups, jump and reach, etc.).
- Variation: play the same game without the beanbags. Students must hop to the correct answer.

MULTIPLICATION CHALLENGE SHEET 1) 2 x 4 = 2) 3 x 5 = 3) 6 x 5 = 4) 11 x 2 = 5) 7 x 7 = 6) 8 x 4 = 7) 12 x 1 = 8) 9 x 6 =	**MULTIPLICATION CHALLENGE SHEET** 1) 9 x 6 = 2) 2 x 4 = 3) 3 x 5 = 4) 6 x 5 = 5) 11 x 2 = 6) 7 x 7 = 7) 8 x 4 = 8) 12 x 1 =
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Multiplication Chart

100's Chart Flash Cards (x, ÷)

- One student holds the flash cards. All other students have a beanbag.
- Flash card student holds up a card and individual students toss beanbag to the answer.
- Students who get the correct answer and toss their beanbag to the correct number get 2 points. The students who get the correct answer but do not toss their beanbag to the correct number receive 1 point. Students who do not get the correct answer must do 3 jumping jacks or another designated task (e.g., push-ups, jump and reach, etc.).
- Variation: play the same game without the beanbags. Students must hop to the correct answer.

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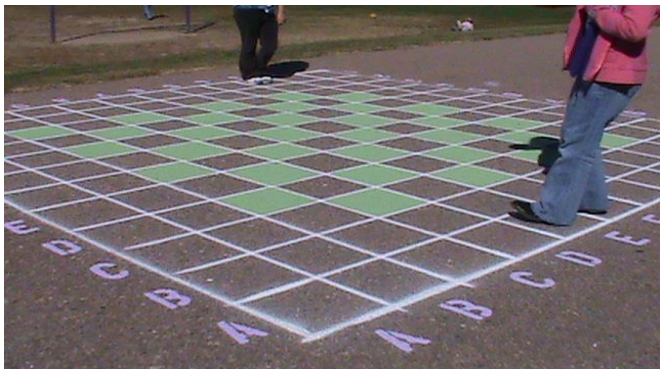
Graphing Chart

Graph It!

- Anytime the teacher uses graphing in class, he/she can bring students outside to do “live graphing”. Once the problem has been worked out, the students can then graph themselves on the chart.
- The teacher can call out points on a graph and have students find that location by standing on the correct points on the chart.

Beanbag Graph

- Students will need paper and pencil available for this activity.
- Students are scattered around the perimeter of the graphing chart, each with a beanbag. On the teacher’s signal students begin traveling (walking, skipping, marching, etc.) around the chart. On the stop signal, students turn towards the chart and on the teacher’s “toss” signal students toss their beanbag underhand to any location on the chart.
- Next, students get their paper and pen and work to create a bar graph depicting each of the beanbag locations on the graph.



Checkers

Checkers

- **Game Ideas**
    1) Checkers
       Play game as usual using people as the pieces for the game.

Clock

What time is it?

Due to the size of this marking, these activities are best played in small groups.

- The teacher should divide the class into groups of three. The teacher will read a sentence and the students must work in their group to create the answer on the clock. Students must hold hands and form a chain to answer the questions.
- Practice rounds:
    1. Show me 1 o'clock.
    2. Show me 10 o'clock.
    3. Show me 5:30.
- Example sentences:
    1. What time is it when classes begin at our school?
    2. What time is it when we each lunch each day?
    3. What time is it when we go home each day?
    4. What time does our class have PE?

Mary wakes up at 6am every morning to get ready for school. If it takes her 45 minutes to get ready and get to the bus stop, what time is it? Oscar does homework after school for 1 hour, then goes out to play. What time is it when he goes to play? Felicia eats dinner from 7pm to 7:30pm, then she can watch TV for 1 hour. After watching TV she gets ready for bed for 30 minutes. What time is it when Felicia goes to bed?

Can you tell time?

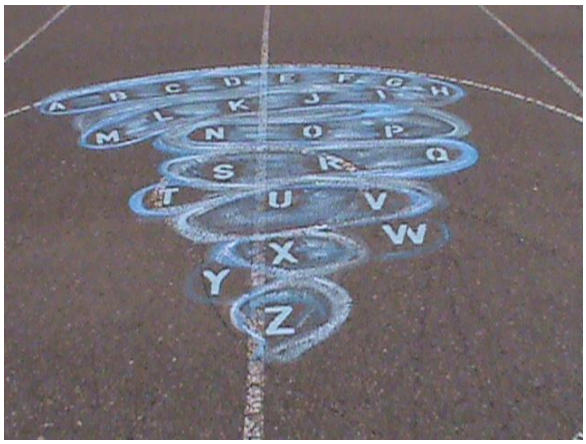
- Divide the class into groups of two. Each pair should have a set of flash cards with times written on on one side of the card and a clock depicting that time on the other side..
- One partner calls out a time and the other partner should hold their hands out and show the time on the clock. The right hand should be the hour and the left hand should be the minute hand. The partner with the card and check their partner for accuracy by turning over the card. Switch partners after 3-4 cards.

Even Odd Hop Scotch

Hop Scotch (4-5 Students)

- Hop Scotch – Suggest playing this game during recess only, not as part of a structured, teacher-led activity.
- Play game as usual. Students can practice counting by twos by playing Hop Scotch
- Variation: Students can draw a flash card from a pile. When the student solves the problem, they can then attempt to toss their marker onto that square and begin to work their way through the Hop Scotch.

ENGLISH LANGUAGE ARTS



Alphabet

Spelling Word Practice:

- Have students work with a partner. One student calls out the weekly spelling words one at a time. The other partner runs to the alphabet marking and touches the letters of the spelling word with their foot one at a time. Each time a letter is touched, the student must call out the name of the letter. Once the last letter has been called out, the student calls out the word. The partners then switch places. Repeat the process.

Spelling Word Practice:

- Divide the class into teams of 4. Each team should have a stack of vocabulary spelling words. On the teacher's signal, the teams begin spelling their words by running to the alphabet and touching the letters of the word with their foot. This should be done in relay style. The first person runs to the alphabet and touches the first letter of the word and then runs back to tag the next player in line. That person then goes to the alphabet and touches the second letter of the word. This continues until the word has been spelled. The person touching the last letter must say the word out loud and then run to tag the next player who begins spelling the next word.
- To increase the activity level, students waiting for their turn can be marching in place (doing arm circles, squats in place, etc.) until it is their time to go.
- Teaching suggestions:
  - Have each team begin on a different word so that they will not run into one another as they spell the words.
  - Waiting team members can call out the letter needed to spell the word if their teammate has trouble.

Name Recognition:

- Divide the class into partner groups. On the teacher's signal, the students will go one at a time to the alphabet to spell their partner's name one letter at a time.
- The first person should run and touch the first letter of their partner's name and then run back to tag the other person who runs to the alphabet to touch the first letter of their partner's name. This is repeated until the names have been spelled.
  - Consider matching students up by the length of their name so that you do not have students having to wait on one another.

- Variation: Have students spell their first and last names. The partners can call out the letter needed to spell their name if needed.

Hit It; Spell It

- Divide the class into groups of 5-7.
- Each person in the group has a beanbag. One at a time the students in each group throw/toss their bean bags onto the alphabet. The students write down the letters that their beanbags landed on.
- On the teacher's signal, the groups make as many words as they can with the letters their beanbags landed on. Set a time limit (1-2 minutes) for each round.
- Play for several rounds and see which group can create the most words.
- Variations: Make the groups larger to create bigger words. Allow each letter to be used more than once. Set a minimum length for words (e.g., must be 3 or more letters).

Letter Recognition:

- Make group sizes appropriate for the size and space of your alphabet marking.
- The teacher calls out either spelling words or just general vocabulary words one at a time. On teacher's signal, students should travel (designate a locomotor movement: walk, hop, march, etc.) to the first letter of that word and touch the letter with their foot.
- Students return to the starting point and wait for the next word.

- Consider dividing the class into groups and have one person from the group call out a list of words. This will keep the students from being too crowded as they travel to/from the letters.
- Variations: The teacher or leader can call out a certain type of word such as fruits and vegetables to reinforce the health concepts taught in PE, health, or science. Have students travel to the last letter of the word instead of the first letter.

SCIENCE

Science Games

4 Square (Elements)

FOUR SQUARE (4-5 Students)

- Four Square – play the game as usual. This activity is best used for general recess, rather than a teacher led activity.
- Patterns - Student in the #1 square sets a pattern/order (e.g., square #1 hits to square #4, square #4 hits to square #2, and square #2 hits to #3, then square #3 hits it to #1, and continue until someone misses or breaks the pattern) and students must hit the ball according to the pattern.
- Name It/Hit It - Students are in groups of 5. Four players are in the squares and one player is the “caller”. The “caller” shouts out one the four elements, water, air, earth, or fire. The student with the ball must hit it into that square. The caller must immediately call out another element. The round continues until someone misses. All players rotate one square clockwise. The earth square rotates to the caller position.

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Planets

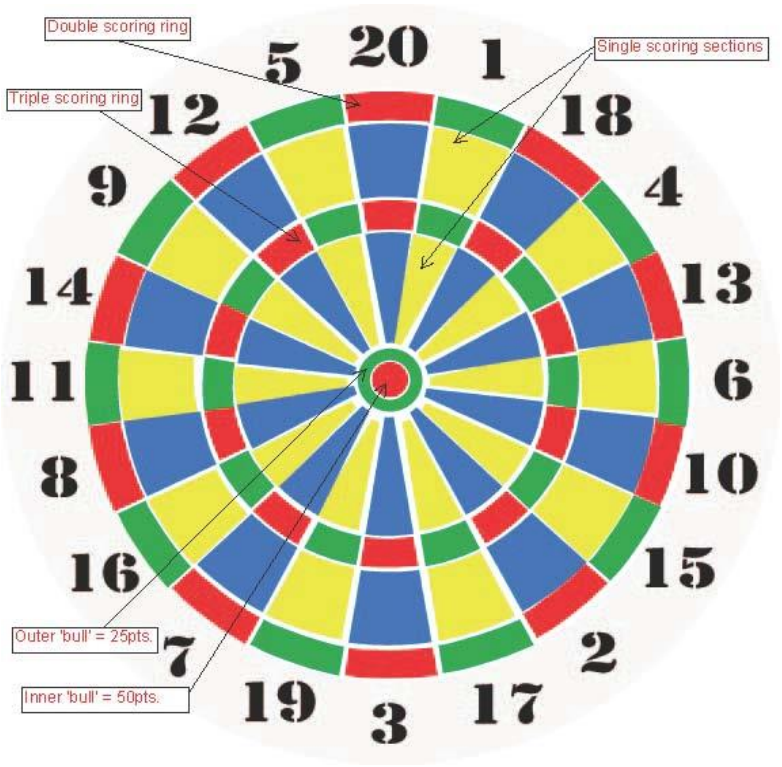
Planet Identification

- Students should start at the sun and then hop or jump (or designate another locomotor movement – lunge walk, march, etc.) from one planet to the other while calling out its name.
- Variation: This activity is best in a group of 9-10. Instruct students to stand on planet; one student per planet. Another student should stand in front of the planets and pass a ball (or other object: beanbag, Frisbee, etc.) to each of the other students one at a time while calling out the names of the planet the students are standing on. Rotate positions after each round.
- If the Solar System marking is located near a basketball hoop, you can use the locations of the planets as shooting stations. Instruct students to stand on one of the planets; one student per planet. Each student on a planet should have a ball. Students then practice shooting the ball toward the goal trying to make a shot. Give each planet a point value. Students then try to score enough baskets to add up to a particular number. Pair students up to get more students involved. Have the pairs take turns shooting and instruct them to keep track of their score. Every minute rotate planets.

Planet Facts

- This activity is best in groups of 6-10 students. Identify a starting point for students to begin that is not on the Solar System marking.
- One at a time, the teacher will call out various facts about the planets. After each fact, students must travel to the planet that the fact refers to. Designate a locomotor movement for students to travel (e.g. skipping, marching, bear walk, etc.).
- Sample Planet Facts:
    - The smallest planet (Mercury)
    - The largest planet (Mars)
    - Closest to the Sun (Mercury)
    - Farthest from the Sun (Neptune)
    - Planets with rings (Jupiter, Saturn, Uranus and Neptune)
    - Third planet from the Sun (Earth)

- Center of our solar system (Sun)
- Has the coldest temperatures (Uranus)
- Second Largest

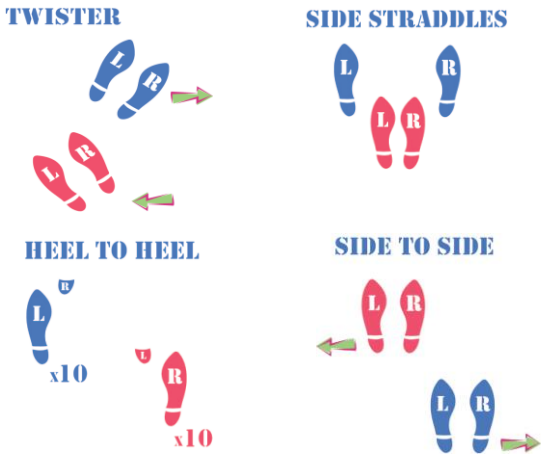


BULLS-EYE/DARTBOARD (3-6 Students)

- **Scoring**
  1) Each wedge of the dartboard is assigned a point value, which is shown on the outermost portion of the wedge.
  2) The value of the outer most ring of a wedge counts as double (e.g., the red area closest to the 20 would count as 40 points if a student tosses to that area).
  3) The value of the inner ring of a wedge counts as triple (e.g., the red and green areas in between the outer ring and the bullseye).
  4) The outer ring of the bullseye counts as 25 points, the inner circle of the bullseye is 50 points.

- **Game Ideas**
  1) 100
     - ⇨ Each student has 3 beanbags of the same color (e.g., Student A has 3 blue beanbags, Student B has 3 red beanbags, Student C has 3 green beanbags, etc.). Students toss all 3 of their beanbags in a row during their turn.
     - ⇨ Students add their score each turn and try to reach exactly 100 points. It is helpful to have a scoring sheet for this game so that students can keep track of their score.
     - ⇨ Variations: Students must subtract from a number and reach exactly zero.

2) Countdown
   - ⇨ Each student has 3 beanbags. Students toss all 3 of their beanbags in a row during their turn.
   - ⇨ Students must 'countdown' from 20 and hit the numbers in order (e.g., toss and land on the 20 wedge, then toss and try to hit the 19 wedge, etc.).
   - ⇨ Students must perform a task if they don't hit the next number in any of their 3 tosses (e.g., 5 jumping jacks, or 5 knee bends, etc.).
3) Connect 3
   - ⇨ Each student has 3-6 beanbags, but only toss 3 during a turn.
   - ⇨ Students try and toss their beanbags to get 3 beanbags in a row. The beanbags can be all on the same number wedge (e.g., 1 beanbag on double ring 1 area, 1 on outer single score 1 area, and 1 on triple ring 1 area), or they can be on 3 different numbers (e.g., 1 beanbag on double ring 3 area, 1 on double ring 17 area, and 1 on double ring 2 area).



JUMP ROPE FOOT PATTERNS (1-2 Students per Pattern)

- **Game/Activity Ideas**
  1) Partner Jumping
     - ⇨ One student counts as their partner jumps. Students keep track of their jumps and try to beat their score.
     - ⇨ Partner pairs rotate from pattern to pattern together.
  2) Individual Jumping Practice
     - ⇨ Students practice their jump rope skills individually and rotate from pattern to pattern.

PLAYGROUND MARKING QUICK REFERENCE GUIDE

Geography

Marking: Compass (3—5 students)

Academic Focus: Geographic directions and knowledge

Activity: Students start in the center of the compass and use locomotor movements to move in the direction indicated by the teacher's statements.

Example: Lunge to Juneau. Crab crawl to Key West.

Geography

Marking: Compass (2—10 students)

Academic Focus: Geographic directions

Activity: Divide students into groups of two. One set of partners get in the center of the compass and close their eyes. The other set of partners place an object in the vicinity of the compass. Once the objects are in place the students in the middle will open their eyes. Their partners will then use directional instructions to guide them to the object. Have students switch roles after each round.

Example: Hop five times west. Do three frog jumps south.

Geography/History

Marking: U.S. Map

Academic Focus: Identifying States and use of geographic directions.

Activity: Have students toss a bean bag to the correct states in response to questions. Have students use directional and locomotor skills to retrieve their bean bags.

Example: Throw your bean bag on a state whose capitol is named after a President. To retrieve your bag travel west to the state that grows the most apples, hopping on your right foot through only the states that border Canada. Now skip to your bag. If your bag landed ion a correct state do 10 jumping jacks if your bag landed in the wrong state run around the outside of the map one time forward and one time backward.

Geography/History

Marking: U.S. Map

Academic Focus: Geographic directions and state recognition

Activity: Instruct students to follow specific north, south, east and west directions and have students identify the location they land on. Have students use different locomotor movements.

Example: Hop east two states. Skip three states west. Lunge four states toward Mexico. Do jumping jacks until you reach the Pacific Ocean. Students can be asked a variety of questions about the states they land on:

What is the Capitol?
Who is the Governor?
What President was born in the state?
When was the state admitted to the Union?
What are the state bird, flower and motto?
What river runs through the state? What is the highest elevation point in the state?
What professional teams play in the state?
Who are the coaches/managers of the teams?
What Indian Tribes are native to the state?

Geography

Marking: Compass ((2—8 students)

Academic Focus: Geographic directions and knowledge

Activity: Divide students into groups and provide the students with cards with various locations. One student will read card and other students will use different locomotor skills to move in the direction of the location. Have students take turns reading the cards. You can have the students do jumping jacks to go north, lunges to go south, skips to go east and one leg hops to go west.

Example: Go to the state with the most lakes. Now go to the last state that the Mississippi River flows through.

Geography

Marking: Compass

Activity: Prior to class hide several objects around the campus. Break students into groups and provide them a set of directional instructions to locate the items. You can place a new instruction with each object so that they must find the first object to receive the next instruction.

Example: Go west to the flag pole and take fifteen steps east to find a soccer ball. Using your feet each team member will dribble and pass the ball as you travel 100 yards south to your next item. If you pass the basketball court you went too far.

English Language Arts

Marking: Alphabet

Academic Focus: Spelling

Activity: Divide students into groups of two. One student calls out a spelling word and the other student runs to the alphabetic marking and touches the letters of the word one at a time calling out each letter .When finished spelling the word they shout the word.

English Language Arts

Marking: Alphabet

Academic Focus: Spelling

Activity: Divide class into teams of two. Have students spell out each other's names by having partner one run to the first letter of his partners name and then run back to partner two who runs to the first letter of partner one's name. Continue the rotation until the name is spelled out. Arrange teams based on number of letters in team member names. Put Amy and Joe together; do not put Katherine with Amy.

English Language Arts

Marking: Alphabet

Academic Focus: Spelling/Word Formation

Activity: Divide class into groups of 5—7. Each group member tosses their bean bag onto a letter. The group writes down the letters the beanbags land on. The group then uses those letters to form as many as they can in two minutes. You can make groups larger to increase word size and you can require words to be at least three letters long. Have teams use a different locomotor skill to retrieve their beanbag each round.

English Language Arts

Marking: Alphabet

Academic Focus: Spelling

Activity: Divide class into four teams. Give each team a stack of flash cards with the spelling words. On the teachers signal each team begins spelling their words in relay fashion. The first person runs to the first letter in the word says the letter and tags the second person who runs to the second letter and says it, the whole team shouts the word when their team member says the last letter in the word. While waiting in line have children do an exercise.

Example: The word is cat. The first member runs to the letter /C/ and says /C/, goes back touches the next person who runs to /A/ and says /A/, touches the third person who runs to /T/ and says /T/ and then all team members shout Cat! While waiting in line everyone does jumping jacks. Switch up exercises for each word by putting the exercise on the flashcards.

Mathematics

Marking: Hop Scotch

Activity: Have students play the game using different variations. Do even numbers first then odd. Do only numbers divisible by 3. Have students draw flash cards and then hop to the appropriate number.

Mathematics

Marking: 100's Chart (8—12 students)

Academic Focus: Multiplication/Division/Subtraction/Addition

Activity: Put students into groups of two. Provide students a math challenge sheets. Have students toss a bean bag to the correct answer. If neither teams bean bag lands on the correct answer have them complete an exercise. Have those that get the answer right perform an exercise too.

Example: Teams who get the answer right do push –ups for the first number and sit-ups for the next number if the answer is one digit they do push-ups for odd numbers and sit-ups for even numbers. 7 x 7 = 49**,** do 4 push-ups and 9 sit-ups. 3 X 1 = 3. Do 3 push-ups. Have teams that get the answer wrong hop to their bean bags and then sprint around the chart one time for their first wrong answer. The next time they get a wrong answer have them hop to their bean bag and skip around the chart one time. You can change the exercises each day.

You can use flash cards and many variations to help students learn mathematics while simultaneously being active.

Mathematics

Marking: Clock (small groups)

Activity: .Divide students into groups of three. Read a sentence and have teams perform a locomotive movement to move to the correct answer. You can also divide the students into groups and have them use flash cards to solve problems associated with time.

Example: Show me 1 o'clock. Show 10 o'clock. Jump to the time school begins. If teams jump to the wrong number have them run clockwise two laps around the clock. The next time they get a question wrong have them do a locomotor skill counter clockwise.

Other questions:
What time do we eat lunch?
What time does school end?
If it takes you 15 minutes to eat lunch when will you be finished?
If the bus leas ten minutes late, what time will it leave?

Mathematics

Marking: Bulls-eye/Dartboard (4—8 students)

Academic Focus: Math Facts

Activity: Divide students into teams of two. Have them take turns tossing beanbags onto the board. After each toss each team writes down the numbers consecutively and uses the numbers to write a math equation that gets them to the designated number. See what team can get to the number first. Have students perform a locomotive skill after each toss.

Example: The number is 31. The team throws their bags on 12, 20, 1, 13 and 11. They make an equation that gets them to 31: 12 + 20 + 1—13 + 11. They perform 12 jumping jacks, 20 jump in place, 1 push-up, 13 crunches and an 11 second plank.

Science

Marking: Planets (9—10 students)

Academic Focus: Planet Identification

Activity: Have students start at sun and then hop, jump, skip or lunge to each planet calling out the name as they travel through the solar system. Have each student stand on a planet and pass a ball, Frisbee or bean bag to each other and call out the names of the planets as they pass the object. If located on a basketball court have students shoot from different planets and assign planets scores based on distance from the goal. Identify facts of planets and have students use a locomotor skill to move to the correct planet. If you make flashcards students can play on their own.

Sample questions:

What is hottest planet?
What is the smallest planet?
What planet has the most rings?
What planet has the most moons?
What planet has the most ice?

Science

Marking: 4 Square Elements (5 students)

Academic Focus: Element Recognition

Activity: Provide students with element flash cards. One student will read the cards and the other students will stand in the element squares. The reader will read the card and the student with the ball will then bounce the ball to the person in the corresponding block. Once a person misses a question they will switch out with the reader. Have students run in place, do jumping jacks or some other activity while cards are being read and have the person with the ball bounce the ball while the card is being read. You can have all students do sit-ups or push-ups as a group when a question is missed.

Graphing

Marking: Graphing Chart

Academic Focus: Graphing

Activity: Have students move around the graph using a locomotor skill. After 20 seconds have them stop and toss their bean bag to a spot on the graph. Now have them use their paper and pen to graph the location of the bean bag. Once they complete the graphing have them perform another locomotive skill for 20 seconds