USING PHYSICAL ACTIVITY TO TEACH CURRICULUM

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1. Dr. Don Morgan –introduced the session by describing research that linked academic success to physical activity.

**MATH:**

1. **Magic Dice** - Equipment needed: 2 Dice (large or small) and several 4X 6” index cards with 3 numbers written vertically on each of them.

Roll dice, use numbers shown plus the sum, difference or product of the two as a number sequence for activity.

 e.g. You roll a 3 and a 6. Using addition your third number would be 9; using subtraction it would be another 3; using multiplication it would be 18.

Then do 3, 6, 3 or 3, 6, 9 or 3, 6, 18 for your activities.

Example: 3 skips, 6 jumping jacks and 3 squat thrusts

 3 jumps, 6 slides, 9 jogging steps

 3 sit-ups, 6 hop scotch feet, 18 gallops

The activities are cyclical, so the children continue to repeat the 3 activities you have given them until you blow the whistle and roll the dice again.

1. Using **jump ropes to form shapes, numbers and *letters*** (see language arts section). Equipment needed: 1 jump rope per child (any length).

Variations: a) each student works alone to form the shapes, numbers, etc., with one rope. b) Students work in pairs using 2 ropes to form two-letter words, shapes or double digit numbers. This is accomplished by laying the ropes on the floor.

Examples: Shapes like circles, ovals, squares, rectangles, triangles

 Numbers – the teacher may ask the children to form the number of their age, their birthdates, any number within a certain range (e.g.,” show me a number larger than 19 and smaller than 35”), or the answer to a simple math equation (e.g., “form the answer to 3 + 4 with your rope”. If children are working in pairs, give them math problems to solve that yield 2 digit answers.

1. **Barker’s Hoopla** - Equipment needed: 4 hula hoops (or 4 jump ropes laid on the floor in circular patterns, and 48 foam squares (use foam similar to a foam pad used when camping and cut it into 2” squares).

Play this game with your students where they either transport foam squares away from their hula hoop one at a time or transport foam squares to their hula hoop one at a time during a set time interval. At the end of the designated time – ask students to count the number of foam squares in their hoop using **skip counting** – by 2’s or 3’s. (A more detailed description of Barker’s Hoopla may be found in the “*PE Lesson Plans for Small Schools*”, available by contacting Dr. Debbie Morgan).

1. **Odd and Even Numbers** - No equipment is needed other than cones to mark the playing area as follows: Delineate a center line by setting up 2 cones 40 feet apart if no lines on the playing surface exist. Use additional cones to mark a restraining line 20-30’ from the center line on each side.

This activity is similar to the game of Crows and Cranes but in this case the two teams are called “Odd” and “Even”. The class is divided into 2 equal groups and the teams are instructed to sit down on the center line back to back. Students’ legs must be out straight and hands must rest on the thighs. The teacher designates one side as the “Odd” team and the other side as the “Even” team. The teacher calls out a number. If the number is even, the even team jumps up and chases the odd team. If the number is odd, the odd team jumps up and chases the even team. Any children that are touched by members of the tagging team before they cross their restraining line become members of the tagging team and join them on their side. Variation: Instead of calling out a single number, give the students an equation to solve and if the answer is even, the even team chases the odd team, etc.

1. **Shapes** – Have students form familiar shapes with jump ropes on the floor (see #2 above). Variation: Make flash cards with shapes on them (large 4 X 6” index cards). Select 4-5 familiar shapes and make enough cards so each student will have one. Place the flash cards on the floor in a circular pattern and have each student stand with toes touching a flash card.

Example: Make flash cards with circles, squares, triangles and rectangles on them. Arrange them randomly in a circular pattern and have the children stand in a circle, toes touching a flash card. The teacher calls out one shape (let’s say **square**). All children standing by a square take one step backwards and run all the way around the circle, returning to the spot they vacated.

1. **Cooperative Shapes** – Divide the class into equal sized groups of 3 or 4. Then show them a picture of a shape and have each group work together to form that shape on the floor with their bodies. (These may be geometric shapes or other random shapes of your choosing – e.g., a star, a wheel with spokes, an asymmetrical shape, etc.)

**LANGUAGE ARTS:**

1. **Sorting and alphabetizing activities**. Divide the class into large groups so each group has at least 5-6 people in it. Then give the groups a timed challenge to:
2. Sort themselves by birthday month from January to December and also by birth **date** within each month as quickly as possible.
3. Alphabetize within each group by first names, middle names or last names.
4. **Reading** - Place task cards (3 x 5” index cards) in the center of the activity area. Have at least double the number of cards as you have students in your class. (You may have repetitions of the same task on the cards.) Students are scattered throughout the area. Instruct students to go to the center, select a card, return to their space for stationary exercises involving no equipment, or go to the appropriate station to use equipment, or move according to instructions. Once they complete that task, they return that card and select another one. Repeat this process until they have completed 8-10 tasks. Examples of tasks might include: 20 jumping jacks, 8 pushups, jog 1 lap, jump rope backwards 25 times, etc.
5. **Spelling** – Create flash cards with one letter each on them or use paper plates with one letter on each plate. Place all the letters in the center of the activity area. Divide the class into small groups of 3-4 each and have blank paper and pencils for each group at its home base. At the teacher’s signal each group sends one student at a time to the center to select a letter and bring it back to the group until all have brought back a letter. The groups then have 1 minute (or whatever time interval you choose) to create as many words as possible from the letters they have selected and write them on the paper provided. At the end of the time, have each group read the words they created.

Spelling variation s- a) The students are the pencils and the floor is the paper. The teacher gives the students a word to spell and the students jog, walk, slide etc., through the shape of each letter to spell the word. (This is easiest when the students spell in cursive!). b) Use jump ropes (groups of 3-4 students) to “write” and spell 3-4 letter words, c) Students use their bodies to spell (groups of 3-4 students) to spell 3-4 letter words.

1. **Creative writing** - Divide the class into small groups of 3-5 students. On the teacher’s signal the first student from each group moves to the writing area (large poster board for each group plus a pen) and uses the pen to create a title for the group’s story. (Have the groups stationed a good distance from the writing area so they get exercise coming and going.) The first student goes back and tags the next student in the group who has 20-30 seconds (or whatever time frame you select) to start the story. The teacher announces when the time is up for that group of students and they return to their respective groups and send the next student up to write. This continues with each student adding to the story until all have had a chance to contribute. (You may decide to let each student have 2 turns before stopping.) Have each group read their story when the time is up. Titles for the stories may be pre-selected by the teacher to coordinate with subject matter being discussed in other lessons. Variation: Select different ways for students to move to the writing area – gallop, slide, skip etc.
2. **Antonyms** – Ask students to move in a particular manner (e.g., slow, low, loudly, crooked, etc) and then ask them to move in the manner that is the antonym (opposite) of what they just did.

**SCIENCE:**

1. **Body Parts**– Use the Back to Back game where students partner up and stand back to back on the teacher’s cue. At your signal have the students leave their partners and continue moving throughout the activity space using a different movement each time (skip, slide, gallop, jog, jog backwards, hop, jump, etc.) At your next signal, (whistle blasts, claps, or tambourine shakes), select a new body part for them to connect with a new partner. Examples: toe to toe, knee to knee, elbow to elbow, etc. (Have them only touch one knee to one knee, one elbow to one elbow etc., so the partners don’t have to get uncomfortably close to each other.)
2. **Body Part or Muscle Identification** - Play “Do as I Say, Not as I Do”. The teacher says a body part (e.g., nose) but touches something else

 (e.g., ear) and the students should respond by doing what the teacher told them to do, NOT what the teacher is modeling. The same game can be played using muscles rather than body parts. Examples: biceps, triceps, abs, quadriceps, hamstrings, gastrocnemius, etc.

**GEOGRAPHY:**

 Organize an all school walk-a-thon with a geographical theme. Log the amount of miles walked by the student body and have a map with a line showing their progress from the starting point to the destination. Examples: a) If the Olympic Games will occur or have occurred in the region of the nation near your school, plot a course that follows a portion of the Olympic torch route until it reaches the site of the Olympics. b) California Gold Rush Theme – start walking in Missouri and continue to Sutter’s Mill c) Walk through Central America, etc. The theme of the walk-a-thon can be tied to other units being studied in the classroom.

The sky’s the limit! Use your imagination and creativity to find ways to tie in physical activity with curricular content.

If I can be of further assistance, or to inquire about teaching materials, feel free to contact me at dmhawaiianspirit@gmail.com . Have a great school year!