Water Speedway

**Introduction:** Students in the fourth grade are asked to observe and record changes in matter caused by the addition of heat. This movement awareness activity is great in that it combines lots of movement with the learning of an important science objective. It will keep the students active!

**Grade Level and Subject:** Fourth Grade Science and P.E.

**TEKS:**
- Science 7A
- P.E. 1A, 1E, 3A, 7A

**Materials:** chalk

**Resource:** *201 Games for the Elementary Physical Education Program* by Jerry D. Poppen. ISBN: 0-13-042061-1

**Activity:** After the students have spent considerable time learning that particles in water, once heated, begin to move and bounce off of one another, it is off to the playground.

Before the class comes to the playground, the teacher will draw a very large circle with chalk on the playground. This circle will represent the “pot” that the students will be “heated” in as particles of matter. The students will walk to the playground and stand quietly in the “pot.” The teacher will position himself or herself so that all students can hear him or her. He or she will begin the activity by calling out one of the three temperatures that will be used in the activity: cold, warm, or hot. The students will respond by performing one of the following tasks. If the water in a pot is cold, the particles barely move. So, if the teacher calls out “cold,” the students will walk around sluggishly and slowly without touching one another. If the water in a pot is heated to a warm temperature, the particles will move a little faster and slightly bounce off one another. Therefore, when the teacher calls out “warm,” the students will move at a jog and slightly bump into each other (the students are not to use their hands to push one another). Finally, if water is heated to boiling, the particles will move quickly and frantically, bouncing off one another with great speed. During the activity, when the teacher calls out “hot,” the students are to run around in the “pot.” They can jump up and down, hop, and move quickly. They are to bump into one another gently and frequently. Again, they are not to use their hands to push one another around. It is the students’ responsibility to know which action to take whenever a temperature is called out by the teacher. The activity can end when the teacher has determined that all of the students have the knowledge of how particles act in water when heated.

**Evaluation:** The teacher will monitor all behavior closely. If additional instruction is needed, he or she will provide that instruction.