

Lesson Name: Throwing Fun into Multiplication

Grade Level: Third Grade

Mathematics Standards:

- 3.OA.A.1 Represent and solve problems involving multiplication and division
- 3.NBT.A.3 Use place value understanding and properties of operations to perform multi digit arithmetic

Physical Education Standards:

- K.MS.03.03 Distinguish between all of the critical elements of the following manipulative skills: roll, underhand throw, and overhand throw
- B.PS.03.0 Exhibit behaviors which exemplify each of the personal/social character traits of responsibility, best effort, cooperation, and compassion in isolated settings.

Main Objective:

- Lesson objectives:
 - Students will demonstrate their understanding of multiplication techniques. Students will work on multiplication skills that were previously gone over in class. Students will answer a series of multiplication problems in order to demonstrate and understanding in the common core mathematics standards. Students will demonstrate supportive and compassionate traits when participating in the mathematics portion of the lesson.

Secondary Objective:

- Lesson objectives:
 - Students will demonstrate mathematics skills while simultaneously participating in physical activity. Students will expand on skills of underhand and overhand throwing skills. Students will demonstrate supportive and compassionate traits when participating in the physical activity portion of the lesson.

Resources (Equipment / Space):

- 1-3 foam balls or junior-size basketballs
- White board
- 1 trash can or 1 large size boxes
- 2 mark pens

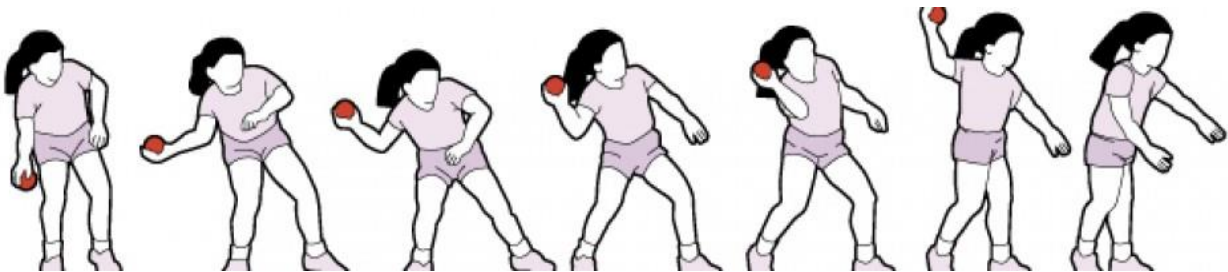
into a bin, from marked positions on the floor. The closest marking line will be worth one point, the next closest/middle line will be worth two points, and the furthest line will be worth three points. Should a student complete the problem and make it back to the starting line first, but did not obtain the right answer, they forfeit their opportunity to obtain points, over to the other team. Should both students get the multiplication problem and race back to their starting points at the same time, both students will be able to shoot to obtain points for their team. The first team to receive 60 points will win the match.

Guided Instruction or Practice:

To have the students practice their throwing skills, the students will pair up and practice throwing a ball back and forth first underhand and overhand. One the students feel comfortable throwing from the distance they are at they will take a step back to further their distance, they will do this for 5 minutes each.

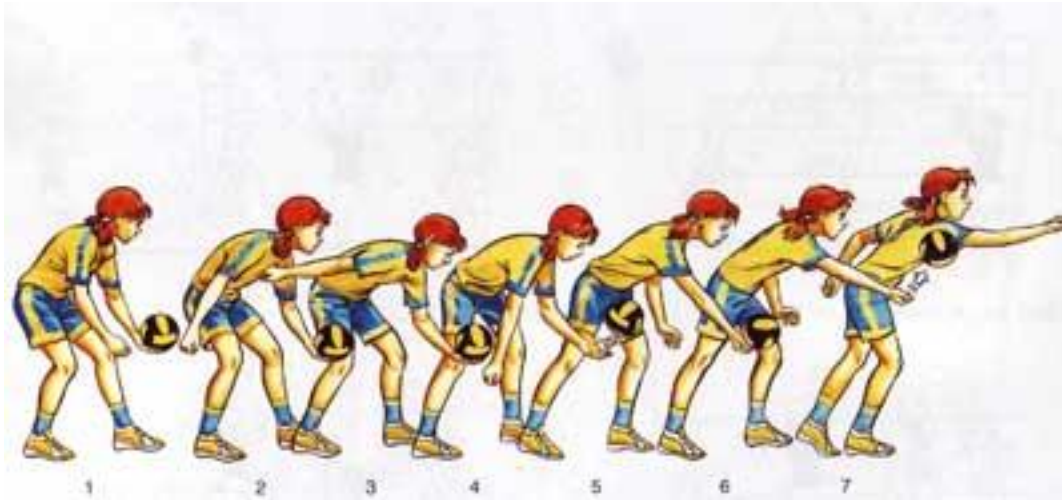
Overhand Throw

- Point non-throwing side/shoulder to the target
- Throwing arm way back behind head
- Step with your opposite foot towards target
- Follow through by letting your throwing arm come across the opposite side of your body
- To get the feel of the full throwing motion throw at something that is far away



Underhand Throw

- Face your target
- Step with your opposite foot towards the target
- Use a pendulum arm motion with the arm you are throwing with
- Follow through to the sky or ceiling with hand you are throwing with



Culminating Activity:

- Activity Name:
 - Throwing Fun into Multiplication
- Description:
 - Students will compete against students from other teams to answer multiplication questions. The students will demonstrate their knowledge of multiplication skills previously taught in class. Students will then be able to use underhand and overhand throwing skills to achieve points for their team.
- Explanation:
 - In the activity *Throwing Fun into Multiplication*, students will first be broken up into two separate teams that are randomly selected. These teams must consist of students who are both excelled at multiplication, and of students who appear to struggle with multiplication concepts. Each member of each team will individually compete against students from other teams to answer a multiplication problem which is asked by the teacher. Once the student who is competing thinks they have the correct answer to the question, they will then race to the white board placed on the opposite side of the gym, write down their answer, and then race back to their team. The student who races back to their team and has the correct answer to the problem first will then be given the opportunity to underhand and overhand throw a small ball into the target to earn a certain amount of points for their team. The student throwing the ball at the target can choose to earn one, two, or three points. Once the student decides how many points they want to shoot for, they will stand behind the one of the three desired point assigned lines which will be marked on the gym floor. The student will have to throw the ball underhand and overhand from their desired points line marker, and try to get the ball in the basket. The student will get one chance each throw to get the ball in the basket, if they do not succeed, they must walk away with zero points earned. The teams of students will continue to compete against each other in the way described above until a team reaches 60 points. The first team with 60 points will be the winner!

- Throughout the activity the teacher will also be conducting an informal assessment. After each question is asked and answered the teacher will ask every student to participate in this informal assessment. The teacher will begin by asking each student to close their eyes. The teacher will then examine the answers that were written on the whiteboard by each student competing at the time. The teacher will then ask the students “if you got the answer ___ please give me a thumbs up” and then ask the same thing again for the other answer on the whiteboard. The teacher will then ask every student to open up their eyes, and then the teacher will announce the correct answer. From there the correct student will be able to shoot a ball to score points for their team. .
- Rules:
 - Each student must have a piece of paper and pencil with them. The students must write down and answer each problem asked individually in order to further develop on multiplication skills.
 - The student representing their team at the time in the competition must answer their asked question individually.
 - In order to possibly earn points, the students competing must run to the whiteboard, write down their answer, and run back to their team before their answer will be considered by the teacher.
 - To earn points the student competing must stand and underhand and overhand throw a ball at the target from behind the desired points line posted on the gym floor.
 - The students competing will only be given two chances (one overhand and one underhand throw) to get the ball in the basket.
 - When the students who competed return to their team, every member of the team must be supportive and encouraging of the returned team member.

Closure / Debrief:

How should you treat your teammates and competitors? Which technique (overhand or underhand) was easier for you?

Assessment- Self-Assessment

Rate how you feel about your understanding of the following topics by coloring in the correct face.

Feel like you have it mastered

Still needs some work

Need a lot of work



Multiplication:

1. How do you feel about answering multiplication problems on your own.



2. What are you still struggling with when it comes to doing multiplication problems?
3. What can you do as a student to improve your multiplication skills?

Throwing:

1. How well do you feel you can throw a ball underhand?



2. How well do you feel you can throw a ball overhand?



3. What do you think you can do to improve your underhand and overhand throw?

Teacher Evaluation:

At the end of the activity I will collect each student's paper with all the multiplication problems I asked, to which they wrote down and answered on their own. My evaluation for the multiplication will be based on the paper I collected, and how well they were able to answer the questions I asked when they were the runner. My evaluation for the throwing will be based on the video I take of them when they are practicing their throws with a partner, and how well they

are able to throw when they are throwing into the target. The evaluations will be graded based on the rubric below.

Throwing fun into math rubric

| Score Levels | Throwing overhand | Throwing underhand | Multiplication skills |
|--------------|---|---|--|
| 3 | <ul style="list-style-type: none"> · The student effectively throws a ball overhand with no help from the teacher. · The student has good form when throwing at a target. · The student is very accurate and makes majority of the throws. | <ul style="list-style-type: none"> · The student effectively throws a ball underhand with no help from the teacher. · The student has good form when throwing at a target. · The student is very accurate and makes majority of the throws. | <ul style="list-style-type: none"> · The student is able to answer majority of the multiplication problems with no difficulty and gets majority of them correct. |
| 2 | <ul style="list-style-type: none"> · The student sometimes needs a reminder on the correct form when throwing a ball overhand at a target. · The student does not always get the ball in the target. | <ul style="list-style-type: none"> · The student sometimes needs a reminder on the correct form when throwing a ball underhand at a target. · The student does not always get the ball in the target. | <ul style="list-style-type: none"> · The student is somewhat proficient at answering the multiplication problems but occasionally needs the teachers help and does not always get the correct answer. |
| 1 | <ul style="list-style-type: none"> · The student needs help from the teacher to throw the ball overhand. · The students shows having no concept of form when throwing the ball overhand at a target. · The student almost never gets the ball in the target. | <ul style="list-style-type: none"> · The student needs help from the teacher to throw the ball underhand. · The student shows no concept of form when throwing the ball underhand at a target. · The student almost never gets the ball in the target. | <ul style="list-style-type: none"> · The student has difficulty answering multiplication problems on their own. They need the teachers help in order to answer the problems. |

Differentiated Instruction or Adaptations:

For the students who are visual learners I would show them the pictures of the step-by-step photos on how to throw overhand and underhand.

For the auditory learners I would read the step-by-step on how to throw overhand and underhand.

For kinesthetic learners I would let them go out and actually practice the overhand and underhand throw.

Notes