

# Bowling

## I. Standards and Unit Objectives

### A. Cognitive Standard:

**IN Standard 2 Movement Concepts:** The student will demonstrate understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities.

#### **Cognitive Objective:**

1. The student will demonstrate the knowledge of the rules and knowledge of bowling by writing the appropriate answer on a written choice test with a minimum of 70% accuracy.

### B. Affective Standards:

**IN Standard 5 Responsible Personal and Social Behavior:** The student will exhibit responsible personal and social behavior that respects self and others in physical activity setting.

**IN Standard 6 Value of Physical Activity:** The student will value physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

#### **Affective Objectives:**

1. The student will use proper lane etiquette by allowing a classmate in the next lane to bowl first, 4 out of 5 times.
2. The student will use proper lane etiquette by only one person at a time approaching the bowling area, 4 out of 5 times.

**C. Psychomotor Standards:**

**IN Standard 1 Motor Skills and Movement Patterns:** The student will demonstrate competency in motor skills and movement patterns needed to perform a variety of physical activity.

**IN Standard 3 Physical Activity:** The student will participate regularly in physical activity.

**IN Standard 4 Health-Enhancing Physical Fitness:** The student will achieve and maintain a health-enhancing level of physical fitness.

**Psychomotor Objectives:**

1. The student will use the correct bowl stance when going to bowl a bowling ball, 8 out of 10 times.
2. The student will use the correct approach when going to deliver the bowling ball down the lane, 8 out of 10 times.
3. The student will demonstrate the straight ball by delivering it straight down the lane toward the pins, 6 out of 10 times.
4. The student will demonstrate the hook ball by delivering it with a curve down the lane, 2 out of 5 times.

**II. Motor Skills:**

**A. Stance**

1. Hold the ball with both hands in front of the body. For a man this may be waist high, for a woman a little higher in order to attain a longer swing for increased speed.

2. Spread the feet slightly apart, weight evenly distributed, perhaps one foot slightly ahead of the other.
3. Most of the weight of the ball should be supported by the nonthrowing hand at this point.
4. Grip the ball with the thumb in a 12'o clock position for a straight ball or the 10'o clock for a hook ball.

#### B. Approach 4-Step Approach

1. Step with right foot and the same time push the ball out to an arm's length in front of the body. Do not overextend the push away, or loss of balance and direction may result.
2. The ball moves to the bottom of the arc on the downswing as the left foot completes the second step.
3. The ball reaches the top of the backswing as the right foot completes the third step. The ball must swing in a straight line, shoulder square to the foul line.
4. As the last step is taken, the ball swings forward, the wrist is firm, and the ball is released toward the target.

#### C. Straight Ball

1. Hold the thumb in a 12'O clock position with the fingers underneath the ball.
2. Maintain the hand position throughout the swing, with no arm rotation during the release of the ball. Keep the wrist firm, and the palm facing the pins as the ball is delivered; maintain a straight follow-through.

#### D. Hook Ball

1. Keep the wrist firm and the thumb in a 10:30'O clock position. This position must be maintained throughout the swing.
2. As the ball is released, the thumb comes out first, and the fingers lift and impart a rotational effect to the ball.
3. Release the ball with the V formed by the thumb and forefinger pointing toward the target.
4. Carry the hand upward and forward toward the pins in the follow-through. Do not side-wheel, twist the arm, or intentionally spin the ball.

### **III. Drills and Lead Up Activities**

#### **A. Stance:**

1. Foot Prints: I will have little foot prints set out on the proper positioning of their feet so they can see and get the idea of where their feet are suppose to be when doing the stance.
2. Stance Approach: The students will start from their point of origin and move forward toward the bowling lane without using the ball and gradually practice until we add a ball to use.

#### **B. Approach**

1. 4-Step Approach Foot Print: I will use the foot prints again to guide the students to where their feet should go through out the approach. They will practice doing the approach without a ball to get the main feel and idea of the correct way of the approach.
2. Partner Teaching: I will then add a ball to do the above activity. They will have partners to watch them to make sure they are correctly doing the skill.

### C. Straight Ball

1. Middle Pin: I will just have the middle front pin set up to practice bowling a straight ball down the middle of the lane. We will then place other single pins to hit in different locations.
2. Perfect Ball Bowling: I will then add all 10 pins to the lane and the students will practice bowling straight balls down the lane.

### D. Hook Ball

1. Foam Pins: I will set up pins and have the students practice using a foam ball or some form of light ball to practice the correct hand movement of the hook ball.
2. Hook Ball: I will then let the students use an actual bowling ball to practice the hook ball. They will bowl and have their partner watch them to make sure they are using correct form.

### E. Lead-Up Activities

1. Bowling Top Gun:
  - a. Distribute students among the lanes.
  - b. Each person bowls one frame.
  - c. Highest score moves to the next lane.
  - d. Once at the top try to defeat two opponents in a row.
2. Spare Change:
  - a. Pair up and challenge another team.
  - b. The first player on team “A” rolls the first ball. His/her partner rolls the next ball. The same then for team “B.”
  - c. Best score is declared the winner.

3. Strike A Match:

- a. Pair up and challenge another team.
- b. The first player on team “A” rolls the first frame. Her/his partner rolls the second frame. One does the even frames and the other does the odd frames.
- c. Best score at the end is declared a winner.

F. Fitness Activity: The students will play a game of freeze tag to help build up their cardiovascular endurance. The game is played by choosing two students to be the taggers. Those who are not the taggers will start at the end line of the basketball court and the taggers will start at half court. When I blow my whistle the students will try to make it to the other end of the court without being tagged. If they should get tagged they become frozen and must stand with their legs spread apart, so a student can crawl through them to unfreeze them. They will keep running up and down the court on my whistle command until about everyone is frozen. I will then choose new taggers and start the game over.

**IV. Skill Test with Record Form**

**A. Skills Test: Partner Bowling Evaluation on Approach, Release, and Aim**

Objective: This evaluation requires students to evaluate a partner to analyze him/her on the following three skills: Approach, Release, and Aim. Students will each bowl two practice frames on which they can practice the areas that will be evaluated on. On the third frame the students will have the partner watch them bowl and evaluate on their approach. On the fourth frame the partner will evaluate on their release. For the final fifth frame the partner will then evaluate on their aim. Record their score on the handout that is given to you and your partner and follow the guidelines that are given to you.

Name \_\_\_\_\_

Partners Name: \_\_\_\_\_

**Record Form: Partner Bowling Evaluation on Approach, Release, and Aim**

**Objective:** This evaluation requires that you evaluate a partner that will be assigned to you to analyze them on the following three skills: Approach, Release, and Aim. You and your partner will each bowl two practice frames on which you can practice the areas that will be evaluated on. On the third frame you will have your partner watch you bowl and evaluate you on your approach. On the fourth frame your partner will evaluate you on your release. For the final fifth frame your partner will then evaluate you on your aim. Record score by placing an "X" in the appropriate box below.

<b>Approach</b>	Always (2 Points)	Usually (1 Point)	Never (0 Points)
Push away on first step			
Push away: out and down-elbow straight			
Backswing: straight-in line with boards			
Steps: smooth, gliding, even rhythm			
Steps: increase in length and speed			
Slide on left foot			
<b>Release</b>			
Shoulders: parallel to the foul line			
Shoulders: level			
Upper body: inclined forward			
Left foot: in line with boards			
Weight balanced on left foot			
Thumb in 12 o'clock position			
Ball first strikes alley 1.5 ft in front of left foot			

Follow-through: straight and to shoulders height			
<b>Aim</b>			
Approach: straight in line with boards			
Release: proper dot to dots at foul line			
Crosses proper dart			
Where does ball strike pins? (e.g.; 1-3,1,3,1-2)			
	Approach	Release	Aim
<b>Total Points:</b>			



**V. Written Test**

**Name:**\_\_\_\_\_

**Directions: Answer the following questions by putting the best answer in each of the blanks.**

1. How many people are allowed on a lane at the approach area during any given time?
2. If a bowler does not get a strike on the first bowl how many turns do they get?
3. What is it called when all the pins get knocked down on the player's second turn?
4. Bowling game consists of how many frames?
5. In the 10<sup>th</sup> frame a strike earns how many extra balls?
6. In the 10<sup>th</sup> frame a spare earns how many extra balls?
7. What is the maximum number of points that can be scored in a game of bowling?
8. If two bowlers are in the approach area at the same time which bowler should bowl first?
9. What is it called when a bowler crossed the foul line with his or her foot, hand, or arm?
10. What is Spot Bowling?
11. What is the 2 o'clock-8 o'clock position?
12. What does these symbols (/), (F), (-) stand for?

**Answer to Written Test:**

**Written Test**

1. How many people are allowed on a lane at the approach area during any given time?

Answer: One

2. If a bowler does not get a strike on his or her first all how many more turns do they get to bowl?

Answer: Two

3. What is it called when all the pins get knocked down on the player's second turn?

Answer: Spare

4. Bowling game consists of how many frames?

Answer: 10 Frames

5. In the 10<sup>th</sup> frame a strike earns how many extra balls?

Answer: Two Extra

6. In the 10<sup>th</sup> frame a spare earns how many extra balls?

Answer: Two Extra

7. What is the maximum number of points that can be scored in a game of bowling?

Answer: 300

8. If two bowlers are in the approach area at the same time which bowler should bowl first?

Answer: The bowler to the right

9. What is it called when a bowler crossed the foul line with his or her foot, hand, or arm?

Answer: A Foul

10. What is Spot Bowling?

Answer: Using the arrows as an intermediate target to aim the ball at the key points.

11. What is the 10 o'clock- 4 o'clock position?

Answer: Hand position for the right handed bowlers.

12. What is the 2 o'clock-8 o'clock position?

Answer: Hand position for the left handed bowlers.

13. What do these symbols (F), (/), (-) stand for?

Answer: Foul, Spare, and Miss/No pins knocked down

## Handout for Students:

### Beginning Bowling Handout

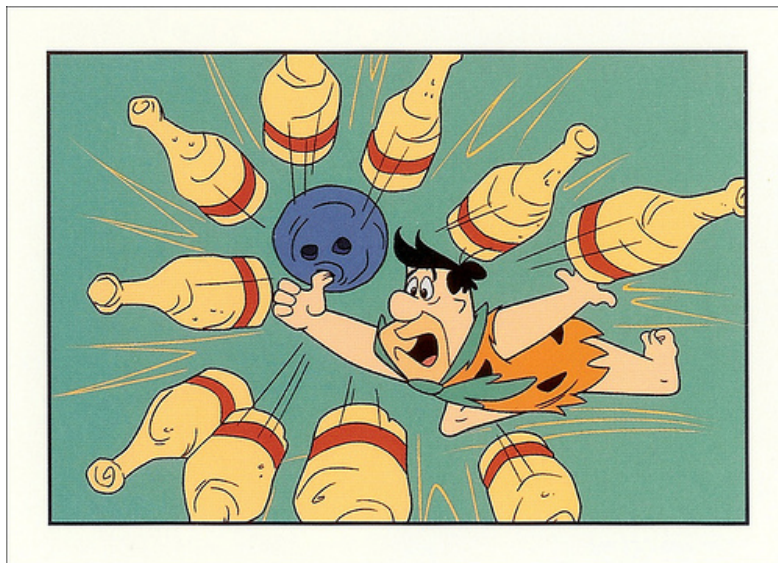
There will be an exam at the end of this course. The exam will include questions regarding the information found in this handout as well as the information researched and put on the class wiki. You are responsible for knowing all the information on this handout. We will go over the handout during the different bowling sessions. You may use the handout for your research but need 2 extra references besides this handout to go into a little more depth! The test will also include a section on scoring which we will practice frequently during the bowling sessions.

### Pin Numbering

7      8      9      10  
4      5      6  
2      3  
1 (Head Pin)

### History

Bowling has been played for a very long time...



But seriously...

“In the 1930’s, British Anthropologist Sir Flinders Petrie became the first to discover evidence of a bowling-like game. He found ancient objects in a child’s grave in Egypt that were allegedly used for a primitive form of the game. The artifacts have been dated back to 3200 BC, effectively making bowling over 5,000 years old! Although some critics put the birth of bowling much later (German historian William Pehle has said that the game originated in his country in 300 AD), it has certainly endured centuries to settle into the modern lanes that we all know and love today.”

## Equipment Selection

- You should consider three factors when selecting a ball:
  - 1) The weight of the ball
  - 2) The size of the holes
  - 3) Finger-hole span (the distance from thumb to fingers)
- Bowling shoes are designed to allow you to slide!

## Design of the lane

- The area in which you make your approach to the lane is appropriately called the *approach*
- The point you must not pass when bowling that marks the start of the lane is the *foul line*.
- From the foul line to the center of the head pin is 60 feet.
- The lane is 42 inches wide
- The 7 large markings placed in an inverted V pattern are known as *target arrows*.
- The area of the lane where the pins are set is known as the *pin deck*
- The locator dots are found in the approach and at the foul line, and they line up with the target arrows.

## Approach

There are two common grips:

- 1) *Conventional* – This is the most popular grip. The ball’s holes have a short finger-hole span, allowing more of the finger inside the ball (down to the second knuckle), more accuracy, and more control. However, the hooking action is minimal.
- 2) *Fingertip* – Second most popular grip. There is a bigger finger-hole span, only fingertips are in the ball (to the first knuckle). Used primarily by more experienced bowlers looking for a greater hook and more spin action.

Guidelines for the approach:

- 1) If you are a true beginner, you may use the 2-step approach, but I recommend that you work towards a consistent 4-step approach as soon as possible.
- 2) Your approach should be smooth, with a minimized jerky or wasted motion.
- 3) You should carry the weight of the ball in your non-bowling hand throughout most of the approach.
- 4) You should always feel on balance.

### **Tips:**

- Remember the follow-through, regardless of your natural delivery.
- Once you find your niche', focus on doing the same thing every time. From the ball, grip, approach, spot chosen, approach and follow-through, if you practice the same way, the ball should do the same thing.
- Practice does NOT make perfect... perfect practice make perfect! Stay focused on the task!
- Aim small, miss small. In other words, if you aim for a small target, and you are just barely off, you will likely hit your target.

### **Aiming**

- Use the locator dots on the approach and the foul line, plus the target arrows, to work towards a perfect strike, based on the natural motion of the bowled ball.
- Using the target arrows as part of your aiming scheme is known as *spot bowling*.

### **Etiquette & Safety** (only a few important ones are listed here, check the class website for more!)

- Always wear appropriate clothing.
- Never use a ball that is too heavy! Take time to choose your ball!
- Always be courteous to the other players!
- Control your emotions (within reason), whether happy or angry.
- Step away from the approach when waiting for your second ball.
- When two players on side-by-side lanes step on the approach at the same time, always yield to the player on the right.
- Do not stick your hand in the ball return!

### **Random terminology to look up and explain!**

Brooklyn side / Fast-lane or oily lane / slow-lane or hooking lane / Channels / Frame / Graveyard / Perfect Game / Spare / Split / Strike / Triple or Turkey / Deuce

### **Scoring**

For most students, this tends to be the most difficult part to learn in bowling. Watch and predict your score to learn it quick!

Basically, you add up the numbers per frame as you go. However, a few exceptions:

1) Spare: your next ball counts towards the current frame as well.








e.g. Frame 1: spare (10), Frame 2: 7 + 2, The total score for frame 1 = 17 (10+7)

2) Strike: double reward! The total score of your next frame counts!

e.g. Frame 1: strike (10), Frame 2: 7 + 2, The total score for frame 1 = 19 (10+7+2)

If you roll 3 strikes in a row (Turkey), you would receive 30 points for your first frame. That is how it is possible to score 300 points in a 10-frame game!

Here is an example of a scored game:

1	4	4	5	6		5			0	1	7		6			2		6
5	14	29	49	60	61	77	97	117	133									

The 3<sup>rd</sup>, 4<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> and 10<sup>th</sup> frames had spares.

Remember that spares are 10 points plus the next ball bowled. That next ball counts twice; once in the spare frame and once again in the frame it was bowled.

The 5<sup>th</sup> and 10<sup>th</sup> frames had strikes.

Remember that that strikes are 10 points plus the next 2 balls bowled. Those next two balls count twice; once in the strike frame and once again in the frame they was bowled.

The total score for this game was 133. The cumulative total frame by frame is at the bottom of each box.

**VI. Block Plan**

**BLOCK PLAN**  
*Exercise and Sport Sciences Department*  
*Manchester College*

Steps	Monday	Tuesday	Wednesday	Thursday	Friday
<b>FIT</b>	Freeze Tag	Freeze Tag	Freeze Tag	Freeze Tag	Freeze Tag
<b>SKL</b>	Introduction to Bowling	Stance	Approach	Straight Ball	Hook Ball
<b>ACT</b>	History Assignment	Use Foot Prints to Practice Stance/incorporate	Use Footprints guides/incorporate real ball	Practice Hitting one Pin/Gradually bowl using all pins	Use foam ball and fake
<b>FIT</b>	Freeze Tag	Freeze Tag	Freeze Tag	Freeze Tag	Freeze Tag
<b>SKL</b>	Practice Using Skills	Practice using Skills	Bowling	Skill Test	Practice Using Skills
<b>ACT</b>	"Bowling Top Gun" Pg. 35	"Spare Change" Pg. 36	Practice Using Skills	Skill Test	"Strike A Match" Pg. 37
<b>FIT</b>	Freeze Tag	Freeze Tag	Freeze Tag	Freeze Tag	Freeze Tag

SKL	Practice Skills	Bowling	Bowling	Bowling	Written Test
ACT	Choose One of the Three games	Tournament	Tournament	Tournament	Possible Free Bowl

## VII. References:

Darst, P. W., & Pangrazi, R. P. (2006). Dynamic physical education for secondary school students (5<sup>th</sup> ed.). San Francisco, CA: Pearson Benjamin Cummings.

Jones, S., & Lumsden, K. (2006). Ready-to-use secondary p.e. activities programs. West Nyack, NY: Parker.

McGill, J. E.(1961). How to teach children to do things the safeway. Journal of Physical Education, Recreation and Dance, vol 32, 29-30.

Schmottloch, N., & McManama, J. (2006). Physical education activity handbook (11<sup>th</sup> ed.). San Francisco, CA: Pearson Benjamin Cummings.