INSTRUCTIONS

This Learning Packet has two parts: (1) text to read and (2) questions to answer.

The text describes a particular sport or physical activity, and relates its history, rules, playing techniques, scoring, notes and news.

The Response Forms (questions and puzzles) check your understanding and appreciation of the sport or physical activity.

INTRODUCTION

Persons of every age and level of skill can enjoy bowling. Even persons with physical disabilities can bowl by using various kinds of adaptors made specifically for them.

Bowling is truly a democratic sport—one that almost everyone can learn to play and enjoy. It's a good way to socialize, exercise and compete all at the same time!

HISTORY OF THE GAME

The history of bowling can be traced back at least seven thousand years. The ancient Egyptians enjoyed a version of the game, as indicated by bowling balls and pins found buried in an Egyptian child’s grave.

By the 1840s, bowling had become popular in America. The first indoor bowling lanes were built in New York. Abraham Lincoln was among the many famous Americans who enjoyed bowling.

The American Bowling Conference (ABC) was founded
for men in 1895. A women’s organization, the WIBA, was founded in 1916. The two organizations now work together to develop and enforce the rules of the game. The combined membership of the ABC and WIBC was approximately ten million people in 1992. That’s almost 4% of the entire population of America, and it doesn’t even count all those everyday bowlers who don’t belong to a conference, but who bowl occasionally just for the fun of it.

HOW BOWLING IS DONE

THE BOWLING ALLEY

Bowling is done in a bowling “alley,” or “lane,” as it is sometimes called, which is 62 feet 10 inches long and about 41 inches wide. The area where the bowler stands is called the “approach area,” and is 15 feet in length.

The foul line separates the approach area from the alley. Nine-inch-wide gutters run along both sides of the alley. At the other end of the alley, ten bowling pins stand, arranged in a triangular formation as shown on the right.

The object is to knock down as many pins as you can each time you send the ball down the alley. The more often you knock all of them down each time you bowl, the higher your score will be. Each pin that is knocked down counts as one point.

Each game is divided into ten “frames,” during which each player has a chance to knock down the pins. If you knock down all the pins during each frame, you will score 30 points per frame and 300 points for the game.

For a novice bowler, a score or 120 or so is considered good. A score between 160 and 180 is good for a regular bowler, while professionals average more than 200 points in a single game.

In each frame, the bowler gets two chances unless the first try is a strike (knocking all the pins down at one time). The scores are all marked on a score sheet using symbols as follows:

\[
\begin{align*}
\times & \quad \text{This stands for a strike, which means that all the pins have been knocked down.}
\end{align*}
\]

This stands for a strike, which means that all the pins have been knocked down.
down in one turn.

This stands for a **spare**, which means that all pins have been knocked down in two turns. A bowler is awarded 10 points plus a bonus of he score on the next roll. If a spare is made on the final frame, one extra roll is permitted.

The zero is used to show a **split** ball, which occurs when the headpin is down and the remaining pins have another pin down immediately ahead of or between them. Remember that a split leaves pins that are not close together standing and it is therefore harder to knock them down in one try.

This mark means a **foul**, which happens when a player goes beyond the foul line. A hand or arm, however, may extend over the foul line with no penalty. When a foul occurs, no score is recorded for that shot.

**PLAYING TECHNIQUES**

**BASIC BOWLING MOVES**

**FOUR-STEP DELIVERY**

The bowling pins may be approached in many different ways, but the most basic is called the “four-step delivery.” Here is a summary of each step:

1. Bend forward
2. Move the right foot forward about 12 inches.
3. Hold the ball forward and to the right.
4. Allow the left hand to leave the ball.
5. Keep the right wrist firm.
6. Keep shoulders parallel to the target.
7. Focus the eyes on the target.

STEP TWO: This step focuses on the left foot and right arm. Keep the right arm as close as possible to the body as the ball is swung backwards.

STEP THREE: The ball now reaches the peak of the backswing (about shoulder height). Keep the movements smooth and deliberate and don’t rush.

STEP FOUR: This step involves twelve movements:

1. Push forward off the right foot.

2. Slide on the front of the left foot.

3. Bend the left knee.

4. Bend at the waist and lean forward.

5. Let the ball swing forward under its own momentum.

6. Keep the right wrist and arm straight.

7. Keep the thumb positioned at “11 o’clock” (“1 o’clock” for left-handed persons).

8. The left knee continues to bend as the left foot slides to a stop.

9. The slide is completed a few inches from the foul line.

10. The left foot is pointed straight ahead.

11. The ball is released across the foul line.
12. The left arm and right foot extend for balance.

FOLLOW-THROUGH

When the ball is released, the thumb comes out first, followed by the other fingers.

At this point, the arm is in a forward position and should continue to rise up to shoulder level. Some bowling instructors don’t emphasize the follow-through, claiming instead that it occurs naturally if the ball is thrown correctly. Other instructors feel that follow-through is an important if neglected part of bowling. Try both to see which one works better for you.

FOUR BASIC SHOTS

The four basic shots indicate the way in which the ball rolls down the alley. These four shots are the:

- straight ball
- hook ball
- curve ball
- backup ball

The straight shot is exactly what its name implies except that it is rolled down the alley slightly off center in order to hit the first pin at an advantageous angle.

The hook shot consistently beats other shots in producing strikes. The hook, if thrown properly, will start a chain reaction among the pins. The hooking motion of the ball’s trajectory results from the way in which the middle and ring fingers are released as the ball is thrown onto the alley.

The curve ball is difficult to control.
It is actually an exaggerated version of the hook shot, but because of the side path, there is more room for error in this shot.

The backup shot is seldom used. It works from left to right, the exact opposite of the other three shots. Most professional players advise against using this type of shot.

**EQUIPMENT AND CLOTHING**

The two essential pieces of equipment needed in bowling are a bowling ball and a pair of bowling shoes. Clothing can be any comfortable, loose-fitting sportswear that allows room for free movement.

Weight, span and pitch must all be considered in selecting a bowling ball. “Span” is the distance between the thumb hole and the finger holes. “Pitch” is the angle at which the finger holes are drilled. With regards to weight, the rule of thumb is to select the heaviest ball that can be handled with ease. Choosing a ball that is too heavy and becoming fatigued from using it defeats the purpose of the game.

A good pro shop can help a beginning bowler decide where holes should be drilled in the ball to insure a comfortable fit.

The choice of bowling shoes depends upon which hand the bowler uses to roll the ball. For example, if the bowler is right-handed, the left shoe needs to allow sliding while the right shoe provides the necessary traction. The opposite is true for left-handed bowlers.

**BOWLING NOTES AND NEWS**

Bowling is one of the most popular pastimes in North America. Friends, families and other ordinary folks meet at local lanes to bowl a few frames. Kids and grownups alike enjoy the game. Because recreational bowling doesn’t require long hours of conditioning for strength or endurance, everybody gets a chance to bowl, both young and old.

On the competitive circuit, it’s a different story. Concentration, practice, and the development of natural skills all go into making a championship bowler. While everybody knows somebody who bowls, few people know the champions.
Bowling has its own professional circuit, just like other sports. The 2001-02 PBA (Professional Bowling Association) publishes individual players’ season averages every year. A quick glance at the top ten performers shows the high level of talent among the top players:

**Final 2002-2003 National Tour Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Events</th>
<th>Average</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Walter Williams</td>
<td>224.94</td>
</tr>
<tr>
<td>2</td>
<td>Chris Barnes</td>
<td>222.91</td>
</tr>
<tr>
<td>3</td>
<td>Norm Duke</td>
<td>221.78</td>
</tr>
<tr>
<td>4</td>
<td>Pete Weber</td>
<td>220.73</td>
</tr>
<tr>
<td>5</td>
<td>Ryan Shafer,</td>
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</tr>
<tr>
<td>6</td>
<td>Brian Voss</td>
<td>220.16</td>
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<tr>
<td>7</td>
<td>Danny Wiseman</td>
<td>219.53</td>
</tr>
<tr>
<td>8</td>
<td>Tommy Delutz</td>
<td>219.43</td>
</tr>
<tr>
<td>9</td>
<td>Parker Bohn</td>
<td>218.95</td>
</tr>
<tr>
<td>10</td>
<td>Tommy Jones</td>
<td>218.10</td>
</tr>
</tbody>
</table>

Williams is the second-most winning player in PBA Tour history. His five PBA Player of the Year Awards rank second only to Earl Anthony, who won six. Williams continues to set the record for most career television finals appearances. He was inducted into the PBA Hall of Fame in 1995.

Clay Duke, of Baker, L.A., became the first bowler to roll a 300 game in 2000. The 23 year-old right hander, who was competing in only his third American Bowling Congress (ABC) championship, threw strikes on his last 12 balls. Less than 24 hours later, Duke’s feat was matched by Brian Saucet of San Marcos, CA. He accomplished the perfect game in his first singles match.

Keep current with the circuit of competition for this popular sport. It is exciting to watch professional bowlers roll up top scores on television. It is also interesting to keep track of how professional as well as college bowlers are doing at a variety of web sites:

http://www.bowlingmuseum.com/

http://www.pbatour.com/
STUDENT RESPONSE PACKET
BOWLING

NAME ____________________

DATE ____________________

WHAT TO DO

The following questions will help you to have a greater appreciation and understanding of bowling. Write your answers in the spaces below the questions. If there is not enough room, write on the backs of these sheets. Be neat, spell correctly, and write in complete sentences.

1. What types of physical benefits can be obtained from bowling?

2. What basic equipment is needed for bowling?

3. What factors are important in selecting a bowling ball?

4. Describe the stages in a four-step delivery.
5. What is meant by “follow-through” in bowling?

6. What are the four basic shots in bowling?

7. What is a split ball?

8. What constitutes a foul in bowling?

9. How many times does each player get to bowl in a typical game?

10. How many frames are there per game? How many possible points can a bowler make? What would be a good score for a beginning bowler?
Physical Education 5 Crossword

Across:
2. Where bowling is done
3. Angle which finger holes are drilled
5. Games are made of ten of these
8. The term used to describe knocking down all the pins in two turns
9. Distance on the ball between the thumb and finger holes
11. They come out last when the ball is released
13. When the ball rolls off of the alley it ends up here
14. What comes out first when the ball is released
15. This foot slides for right-handed bowlers
17. Number of pins in bowling
18. One of the types of shots in bowling
19. When a player goes over the line on the floor while bowling

Down:
1. How heavy a bowling ball is can be referred to as its ___
4. Points for knocking down all pins in one frame
6. This bowling shot does not curve
7. Area where bowler stands
10. The term used for knocking down all the pins in one turn
11. The number of basic shots in bowling
12. This term is used to describe the situation when the head pin is down and other pins are still up
16. One does this to the bowling ball to knock down the pins
Use the clues below to discover words in the above puzzle. Circle the words.

1. Angle at which the finger holes are drilled
2. When the ball goes off of the alley it ends up here
3. They come out last when the ball is released
4. This bowling shot does not curve
5. Points for knocking down all pins in one frame
6. Games are made of ten of these
7. This term is used to describe the situation when the head pin is down and other pins are still up
8. When the player goes beyond the foul line
9. Number of pins in bowling
10. What comes out first when the ball is released
11. One does this to the bowling ball to knock down the pins
12. Distance on the ball between the thumb and finger holes
13. Area where bowler stands
14. The number of basic shots in bowling
15. The term used to describe knocking down all the pins in two turns
16. The term used for knocking down all the pins in one turn
17. This foot slides for right-handed bowlers
18. Where bowling is done
19. The _______ of the bowling ball is how heavy it is
20. One of the types of shots in bowling