

Bowling Fundamentals

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Rubrics

What is a rubric?

A **rubric** is a scoring tool for subjective assessments. It is a set of criteria and standards linked to learning objectives that is used to assess a student's performance. Rubrics allow for standardized evaluation according to specified criteria, making grading simpler.

The rubric is an attempt to delineate consistent assessment criteria. It allows teachers and students alike to assess criteria which are complex and subjective and also provide ground for self-evaluation. It is aimed at accurate and fair assessment, fostering understanding and indicating the way to proceed with subsequent learning/teaching. This integration of performance and feedback is called "ongoing assessment."

Increasingly, instructors who rely on rubrics to evaluate student performance tend to share the rubric with students at the time the assignment is made. In addition to helping students understand how the assignment relates to course content, a shared-rubric can increase student authority in classroom.

The following common features of rubrics can be distinguished, according to Bernie Dodge and Nancy Pickett:

- focus on measuring a stated objective (performance, behavior or quality)
- use a range to rate performance
- contain specific performance characteristics arranged in levels indicating the degree to which a standard has been met.

Usage

Rubrics are often used in alternative assessments in education. It is usually in the form of a matrix with a criteria for success. The rubric focuses on stated objectives and should use a scale to rate performance.

The *key advantage* for classroom teachers is that rubrics force clarification of success in the classroom, establishing clear benchmarks for achievement. By sharing scoring rubrics with students, they become aware of the expected standards and thus know what counts as quality work. With rubrics, grading becomes more objective, consistent and defensible. Additionally, rubrics make grading more efficient. Time spent developing a grading rubric will be made up for in ease and speed of actual grading.

According to R. Sabetiashraf, rubrics serve a different role in different phases of assessment:

- During the **pre-assessment phase**, rubrics are used to clarify expectations and grading methods with learners. As a result, learners can perform a self-assessment prior to submission of their work.

- During the **assessment phase**, rubrics help evaluators to remain focused on the preset standards of excellence and objectively assess the learner.
- During the **post-assessment phase** learners are given a scored rubric with clear explanation of their grade. They are made aware of their weaknesses and strengths.

Rubrics should be centered more on teaching and learning than scoring. Some of the reasons for using rubrics include:

1. Focus instruction by design.
2. Guide colorful feedback.
3. Objectively characterize desired results.
4. Clearly develop performance standards.
5. Develop self-assessment competence.
6. Involve students and be attentive.

Please review the following grade specific rubrics to assist in teaching age-appropriate Bowling Fundamentals.

Name _____
Date _____

Rubrics K-2

	- 4 - Accomplished	- 3 - Competent	- 2 - Developing	- 1 - Beginning
Approach and Delivery SCORE ____	Demonstrates proper stance by using correct finger positioning and bending at the knees and waist. The ball rolls smoothly ALL of the time.	Demonstrates proper stance by using correct finger positioning and bending at the knees and waist. The ball rolls smoothly MOST of the time.	Demonstrates proper stance by using correct finger positioning and bending at the knees and waist. The ball rolls smoothly SOME of the time.	Does not demonstrate proper stance by using correct finger positioning and bending at the knees and waist. The ball rarely rolls smoothly.
Accuracy and Balance SCORE ____	Consistently stays behind foul line and keeps ball on lane. Regularly knocks down pins.	Usually stays behind foul line and keeps ball on the lane. Frequently knocks down pins.	Occasionally crosses foul line and throws ball off the lane. Occasionally knocks down pins.	Consistently falls down or crosses the foul line and throws the ball off the lane. Rarely knocks down any pins.
Knowledge of the Game SCORE ____	Completely understands the fundamentals of bowling: approach, release, follow through and concepts of foul line, strikes and spares.	Usually understands the fundamentals of bowling: approach, release, follow through and concepts of foul line, strikes and spares.	Occasionally understands fundamentals of bowling: approach, release, follow through and concepts of foul line, strikes and spares.	Consistently does not understand fundamentals of bowling: approach, release, follow through and concepts of foul line, strikes and spares.
Safety and Etiquette SCORE ____	Behavior is safe and mannerly on the lanes. Ready to bowl when it is his/her turn and respects priority of bowler to his/her right or left.	Behavior is usually safe and mannerly on the lanes. Ready to bowl when it is his/her turn. Respects priority of bowler to his/her right or left.	Needs occasional reminders to get ready to bowl when it is his/her turn and to respect priority of bowler to his/her right or left.	Needs to be reminded to get ready to bowl each time it is his/her turn and to pay attention to bowler to his/her right or left.
Character Development SCORE ____	Consistently encourages other team members, treats teammates with respect and moves through rotations easily.	Usually encourages other team members, treats teammates with respect and moves through rotations easily.	Needs reminders to encourage other team members, treat teammates with respect and to move through rotation.	Makes fun of other team members, disrespects teammates and does not like to share equipment or take turns.
Effort and Attitude SCORE ____	Follows along on task consistently, plays well with teammates, takes turns with different roles and shows enthusiasm.	Usually stays on task, plays well with teammates, takes turns with different roles and shows enthusiasm.	Needs 2-3 reminders to stay on task and to cooperate with teammates. Shows some enthusiasm.	Not on task at all or rarely. Uncooperative with teammates. Little or no enthusiasm.

Name _____
Date _____

Rubrics		- 4 - Accomplished	- 3 - Competent	- 2 - Developing	- 1 - Beginning
3-5					
Approach and Delivery SCORE ____	Demonstrates proper approach by using correct finger positioning and bending at the knees and waist. The ball rolls smoothly ALL of the time.	Demonstrates proper approach by using correct finger positioning and bending at the knees and waist. The ball rolls smoothly MOST of the time.	Demonstrates proper approach by using correct finger positioning and bending at the knees and waist. The ball rolls smoothly SOME of the time.	Does not demonstrates proper approach by using correct finger positioning and bending at the knees and waist. The ball rarely rolls smoothly.	
Accuracy and Balance SCORE ____	Consistently stays behind foul line and keeps ball on lane. Regularly bowls multiple strikes.	Usually stays behind foul line and keeps ball on the lane. Frequently bowls more than one strike.	Occasionally crosses foul line and throws ball off the lane. Rarely bowls a strike.	Consistently falls down or crosses the foul line and throws the ball off the lane. Has never bowled a strike.	
Knowledge of the Game SCORE ____	Completely understands the fundamentals of bowling: approach, release, follow through and concepts of foul line, strikes and spares.	Usually understands the fundamentals of bowling: approach, release, follow through and concepts of foul line, strikes and spares.	Occasionally shows understanding of fundamentals of bowling: approach, release, follow through and concepts of foul line, strikes and spares.	Consistently does not show understanding of fundamentals of bowling: approach, release, follow through and concepts of foul line, strikes and spares.	
Safety and Etiquette SCORE ____	Behavior is consistently safe and mannerly on the lanes. Ready to bowl when it is his/her turn and respects priority of bowler to his/her right or left.	Behavior is usually safe and mannerly on the lanes. Ready to bowl when it is his/her turn. Respects priority of bowler to his/her right or left.	Needs 2-3 reminders to get ready to bowl when it is his/her turn and to respect priority of bowler to his/her right or left.	Needs to be reminded to get ready to bowl each time it is his/her turn and to pay attention to bowler to his/her right or left.	
Character Development SCORE ____	Consistently encourages other team members, treats teammates with respect and moves through rotations easily.	Usually encourages other team members, treats teammates with respect and moves through rotations easily.	Needs reminders to encourage other team members, treat teammates with respect and to move through rotation.	Makes fun of other team members, disrespects teammates and does not like to share equipment or take turns.	
Effort and Attitude SCORE ____	Follows along on task consistently, plays well with teammates, takes turns with different roles, shows good leadership and enthusiasm.	Usually stays on task, plays well with teammates, takes turns with different roles, shows good leadership and enthusiasm.	Needs 2-3 reminders to stay on task and to cooperate with teammates. Shows some leadership and enthusiasm.	Not on task at all or rarely. Uncooperative with teammates. Little or no leadership or enthusiasm.	

Name _____
Date _____

Rubrics 6-8

	- 4 - Accomplished	- 3 - Competent	- 2 - Developing	- 1 - Beginning
Approach and Delivery SCORE _____	Demonstrates proper approach by using correct finger positioning and bending at the knees and waist. The ball rolls smoothly ALL of the time.	Demonstrates proper approach by using correct finger positioning and bending at the knees and waist. The ball rolls smoothly MOST of the time.	Demonstrates proper approach by using correct finger positioning and bending at the knees and waist. The ball rolls smoothly SOME of the time.	Does not demonstrate proper approach by using correct finger positioning and bending at the knees and waist. The ball rarely rolls smoothly.
Accuracy and Balance SCORE _____	Consistently stays behind foul line and keeps ball on lane. Regularly bowls a strike.	Usually stays behind foul line and keeps ball on the lane. Frequently bowls a strike.	Occasionally crosses foul line and throws ball off the lane. Rarely gets bowls a strike.	Consistently falls down or crosses the foul line and throws the ball off the lane. Has never bowled a strike.
Knowledge of the Game SCORE _____	Completely understands all rules and fundamentals of the game as presented. Can manually score an entire game accurately.	Understands the basic rules and fundamentals of the game as presented and can manually score an entire game almost accurately.	Understands some of the rules and fundamentals of the game as presented. Can manually score spares and strikes.	Does not understand any of the rules or fundamentals presented except that he/she has to knock over some pins. Cannot manually score a spare or strike.
Safety and Etiquette SCORE _____	Behavior is consistently safe and mannerly on the lanes. Ready to bowl when it is their turn and respects priority of bowler to his/her right or left.	Behavior is usually safe and mannerly on the lanes. Ready to bowl when it is his/her turn. Respects priority of bowler to his/her right or left.	Needs reminders to get ready to bowl when it is his/her turn and to respect priority of bowler to his/her right or left.	Needs to be reminded to get ready to bowl each time it is his/her turn and to pay attention to bowler to his/her right or left.
Character Development SCORE _____	Consistently encourages other team members, treats teammates with respect and moves through rotations easily.	Usually encourages other team members, treats teammates with respect and moves through rotations easily.	Needs reminders to encourage other team members, treat teammates with respect and to move through rotation.	Makes fun of other team members, disrespects teammates and does not like to share equipment or take turns.
Effort and Attitude SCORE _____	Follows along on task consistently, plays well with teammates and shows enthusiasm.	Usually stays on task, plays well with teammates and shows enthusiasm.	Needs 2-3 reminders to stay on task and to cooperate with teammates. Shows some enthusiasm.	Not on task at all or rarely. Uncooperative with teammates. Little or no enthusiasm.
Bowling Proficiency SCORE _____	Able to bowl a spare when needed most of the time and able to get at least 4 strikes.	Able to bowl a spare some of the time and able to get at least 2 strikes.	Needs help to adjust technique to better hit a strike and able to hit at least 1 strike.	Unable to get a spare due to lack of technique and/or adjustment and did not hit a strike.

Safety

Before you teach bowling in your class, it's important to cover a few basic safety rules:

1. Students should remain on their feet at all times. If a ball or pin ricochets, it could hit them in the face.
2. No one should step beyond the foul line. Whether you are using the official In-School Bowling carpeted lane or another simulation of a lane, ensure that students don't step beyond the foul line. At the bowling center, this is important for two reasons:
 - a. You will receive a score of zero for the frame; and
 - b. The lanes are oiled which helps protect them and reduce the friction caused by the ball rolling down the lane. You could slip and fall if you step onto the oil, or you could track oil onto the approach, causing others to slip and fall.
3. If you are using the In-School Bowling equipment, keep the nylon carrying bags for the balls and pins off the floor. They can be slippery and cause falls.
4. In class, students will learn a four-step approach. They should not "slide" on the fourth step in the gym as they would at the bowling center. When they are bowling at a bowling center, they will wear bowling shoes which are designed to slide on the bowling center approach.

Reinforcing these safety rules will ensure that your children have a fun and SAFE bowling experience!

Etiquette

When you go bowling, it's important to use good *manners*.

1. If someone to your left or right is about to bowl, wait until that person is finished before you take your turn. Or, if you are walking up to take your turn at the same time as someone on your left or right, always offer to let the other person go first.
2. Be ready when it is your turn so you don't hold up the game.
3. Be courteous to your teammates and cheer them on.
4. Don't ever tease a bowler who is not doing well. Help to make sure that everyone is having a good time.
5. Keep refreshments in designated areas and away from the lane and approach.

Free Pendulum Swing

Setting: Gym/multi-purpose room. Students should spread out with enough room to swing their arms without bumping into each other (see diagram below).

Teaching time: 3-5 minutes

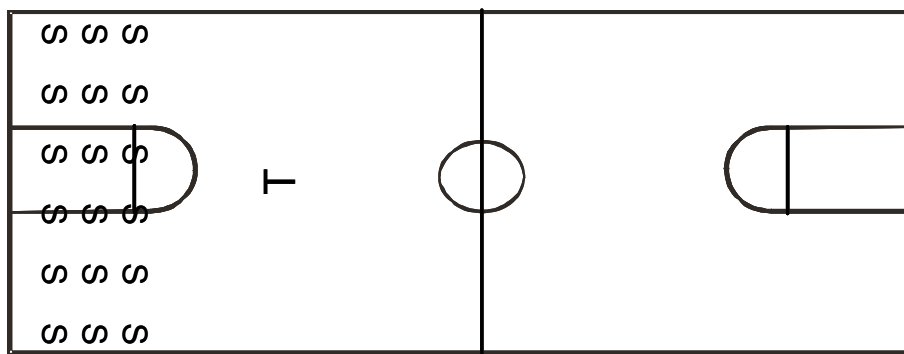
Equipment: None

Cue Words: "Push, Relax"

Instructions:

1. Have students get into a "Staggered" position:
 - Tell them to raise the hand that they will bowl with.
 - Say, "On the same side of your body is a leg. At the end of that leg is a foot. Pick up that foot and step back 6-8 inches."
2. Once they're in the staggered position, have them relax their bowling arm at their side.
3. Have them lean forward.
4. Have them place their non-bowling hand on their bowling wrist.
5. Have them push their wrist backwards and let their arm swing freely forward, totally relaxed.
6. Have them practice the drill several times and repeat the cue words, "Push, Relax" to help them develop a rhythm.

★**Teaching Tip:** Using "generic" language (bowling arm, non-bowling arm) rather than teaching "right" or "left" will ensure that you only have to teach the lesson once, and that left-handers don't have to reverse the right-handed technique.



T = teacher S = student



How to Hold the Ball

Setting: Gym/multi-purpose room. Students should spread out with enough room to avoid bumping into each other (see diagram below).

Teaching time: 3 minutes

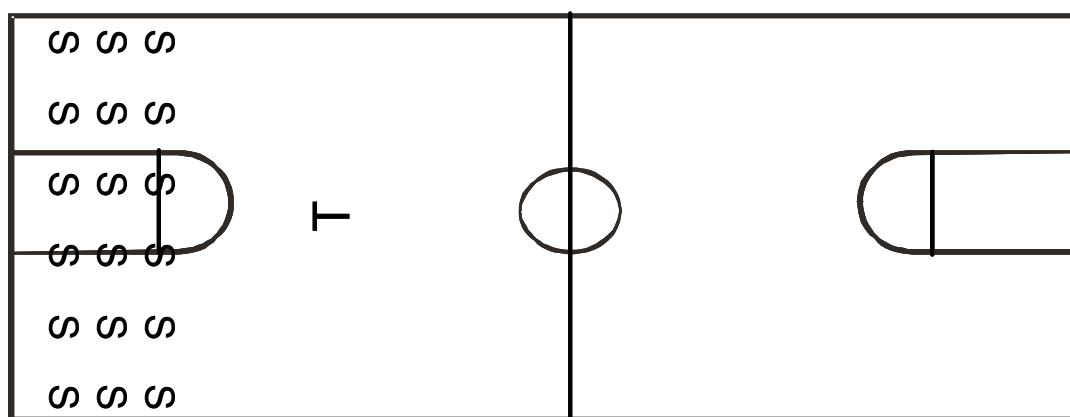
Equipment:

1. (Optional) One glove with the two middle fingers cut off
2. One bowling ball

Cue Words: None

Instructions:

1. Have students raise the hand that they bowl with.
2. Tell them to touch their middle two fingers and their thumb together.
3. If you have a glove available, demonstrate by putting your hand in the glove to help them visualize which fingers they use.
 - ★ **Teaching Tip:** When the students touch their middle two fingers and thumb together, show them that it looks like a bunny rabbit shadow puppet or "hang loose" or "Hook'em Horns" or Spiderman.
4. Using a bowling ball, place your thumb and fingers in the holes to demonstrate how to hold it.
5. If time permits, have each student practice holding the ball.



T = teacher S = student



Release

Setting: Gym/multi-purpose room. Students will get into teams of two and line up in two parallel lines facing each other. They should be 10 to 15 feet apart (see diagram below).

Teaching time: 7-10 minutes

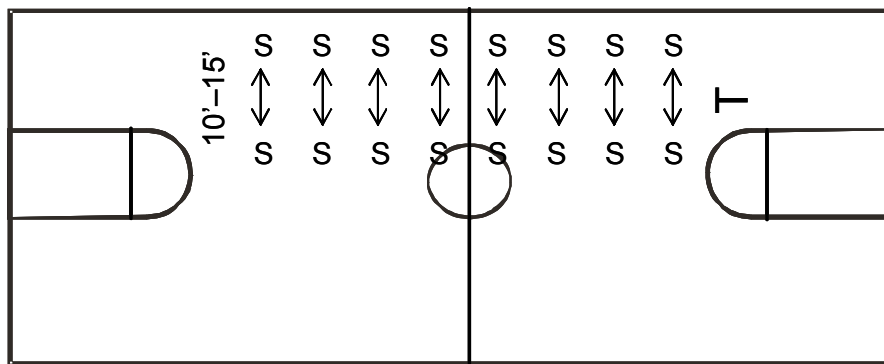
Equipment:

1. A paper clock for each student (see next page for clock pattern)
2. One softball or similar-sized ball for each pair of students

Cue Words: None

Instructions:

1. Have students pair up and face each other 10 to 15' apart.
2. Ensure that each student has a paper clock.
3. Give each pair of students a softball.
4. Have students get into the "Kneel Down" position (as shown below).
5. Tell students to raise the hand that they will bowl with then say: "On the same side of your body is a leg. On that leg, there is a knee. Touch that knee. Now, kneel down on that knee."
6. Have students place the clock on the floor next to their knee, directly below their bowling hand.
7. Tell students to place their bowling fingers (two middle fingers) on the appropriate numbers—for right-handed bowlers, this will be the 4 and 5 and for left-handed bowlers, this will be the 7 and 8.
8. Have students slide their two fingers under the ball and grip the top of the ball with their thumb.
9. Tell students to raise the ball off the ground, keeping their arm straight.
10. The student will then take two swings and release the ball on the second swing.
11. The partner will return the ball using the same technique.
12. Have each student practice several times.
13. Have them practice releasing the ball smoothly, like an airplane landing on a runway.

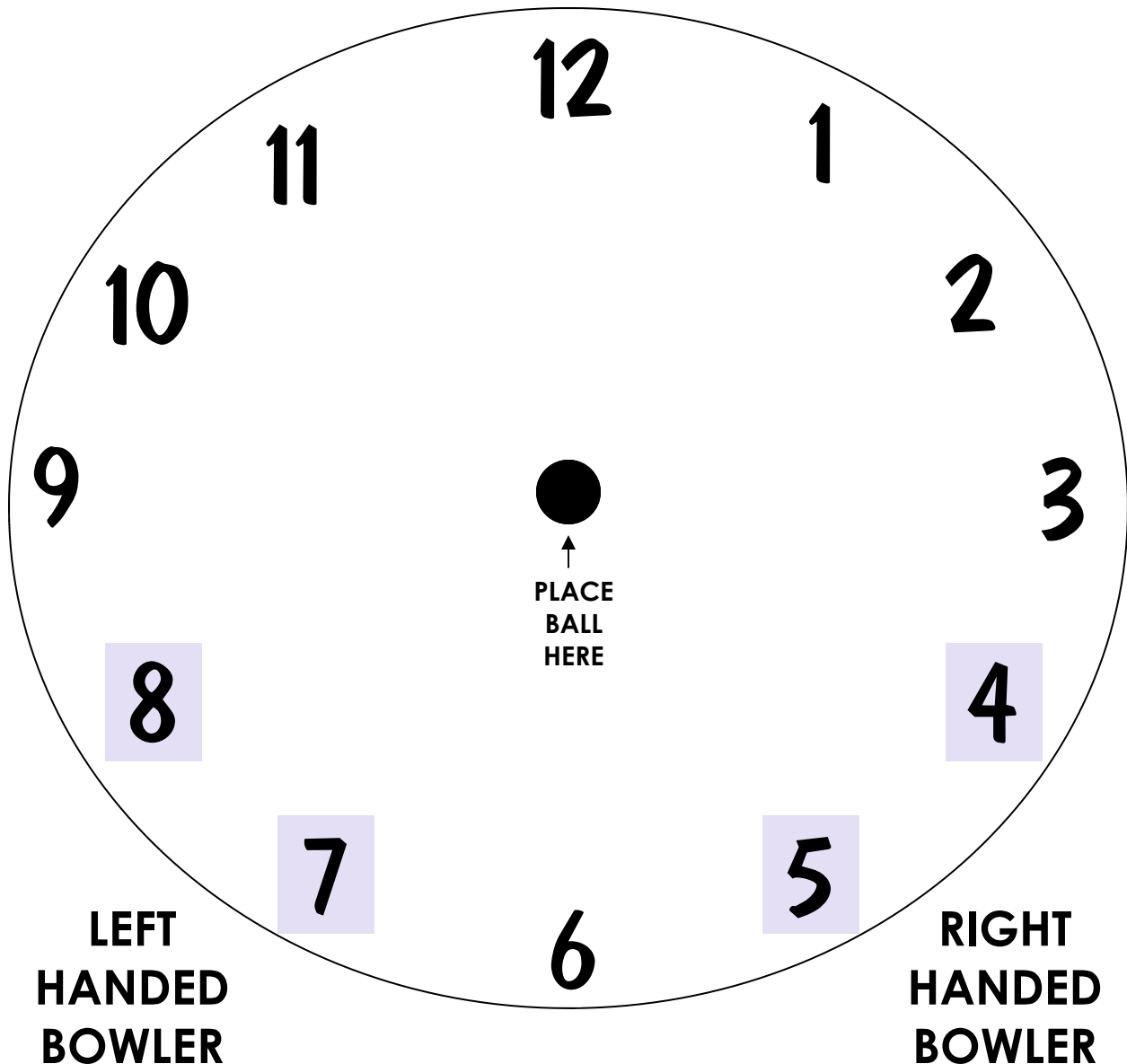


T = teacher S = student



CLOCK

To use with Release Lesson, Follow Through Lesson
and Accuracy Lesson.



Follow Through

Setting: Gym/multi-purpose room. Students will get into teams of two and line up in two parallel lines facing each other. They should be 10 to 15 feet apart (see diagram below).

Teaching time: 10 minutes

Equipment:

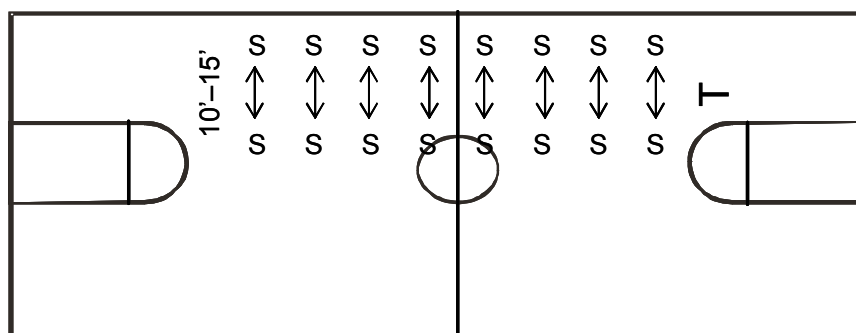
1. A paper clock for each student (see previous page)
2. One softball or similar-sized ball for each pair of students

Cue Words: "Answer the phone."

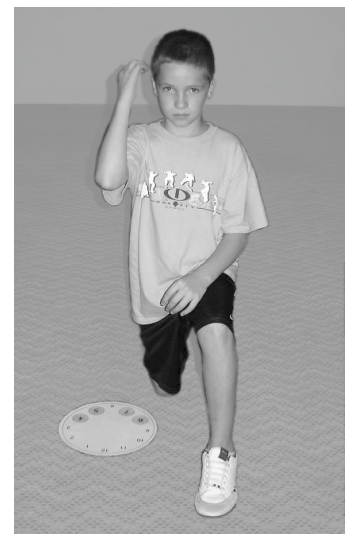
Instructions:

1. Have students pair up and face each other 10 to 15' apart.
2. Give each student a paper clock and each pair of students a softball.
3. Tell students to get into the "Kneel Down" position (see below).
5. To teach the follow through, ask your students what they do when their friends call them on the phone. They will respond, "Answer it." The follow through is similar to answering the phone; once they release the ball, they should continue the arm swing forward and bring their hand near their ear for the proper follow through.
6. Using the clock and softball as in the Release exercise, each student should take two swings and practice the follow through when the ball is released.
7. Using the cue words "Answer the phone" will help them remember the follow through.

★ **Teaching tip:** Demonstrate the phone call as being a "local" call—hand up to the ear—rather than a "long distance" call—arm extended out.



T = teacher S = student



Accuracy

Setting: Gym/multi-purpose room. Students will get into teams of two and line up in two parallel lines facing each other 10 to 15 feet apart (see diagram on page 11).

Teaching time: 7-10 minutes

Equipment:

1. A paper clock for each student (see previous lesson)
2. One softball or similar-sized ball for each pair of students
3. A bowling pin for each pair of students

Cue Words: None

Instructions:

1. Have students pair up and face each other 10-15' apart.
2. Ensure that each student has a paper clock.
3. Give each pair of students a softball and a bowling pin.
4. Have students get into the "Kneel Down" position (as in previous exercise).
5. Instruct students to place the clock on the floor next to their knee, directly below their bowling hand.
6. The students lined up closest to the wall should place a bowling pin on the center of their clock.
7. Have their partners place their bowling fingers—two middle fingers—on the appropriate numbers for them—for right-handed bowlers, this will be the 4 and 5; for left-handed bowlers, this will be the 7 and 8.
8. Have students slide their two fingers under the ball and grip the top of the ball with their thumb. then raise the ball off the ground, keeping their arm straight.
9. The student will then take two swings and release the ball on the second swing, attempting to knock over the pin.
10. Have each student take 5 deliveries.

Teaching Tip After the first group of students has taken a couple of deliveries, STOP THE CLASS. At this point, some of the students may have knocked down a pin, but others have not and may be discouraged. To keep those students motivated and excited, show them the difference between the size of a softball and a bowling ball. Point out that if they have not had much luck hitting the pin with a softball, they'll knock them down every time with a bowling ball!

Balance

Setting: Gym/multi-purpose room. Students should spread out with enough room to swing their arms without bumping into each other (see diagram below).

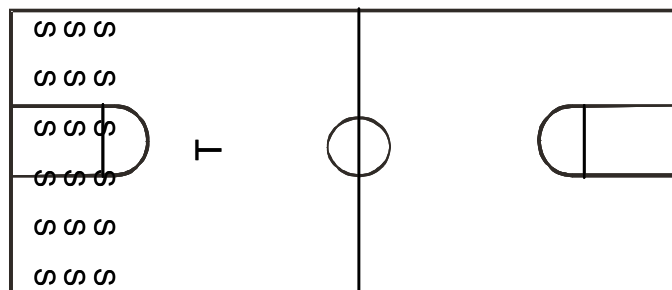
Teaching time: 3-5 minutes

Equipment: None

Cue Words: None

Instructions:

1. Explain the importance of balance. A good way to do this is to use an analogy from the movie *Karate Kid*. In that movie, Daniel wanted to be a master at karate. In order to master karate, he had to have perfect balance. He would practice balance by getting into the "crane" position. Explain that balance is also important to become a good bowler.
2. Have students get into the "Staggered" position:
 - Tell them to raise the hand that they will bowl with.
 - Say, "On the same side of your body is a leg. At the end of that leg is a foot. Pick up that foot and step back 6-8 inches."
3. Instruct students to lean forward, putting most of their weight on their front foot. Their front knee should be deeply bent.
4. Next have them lean forward and extend both arms out to the side.
5. Have students lift their back toe off the ground and see if they can hold their balance.
6. Then have them rest their back toe on the floor and move it behind their front leg.
7. Next tell students to relax their bowling arm at their side, holding the balance position.
8. Finally have them swing their bowling arm freely, as they did in the Free Pendulum Swing exercise.



T = teacher S = student



Rotation

Setting: Gym/multi-purpose room with bowling lanes set up with only four pins—1, 2, 3 and 5 pin (see diagram below).

Teaching time: 10 minutes

Equipment:

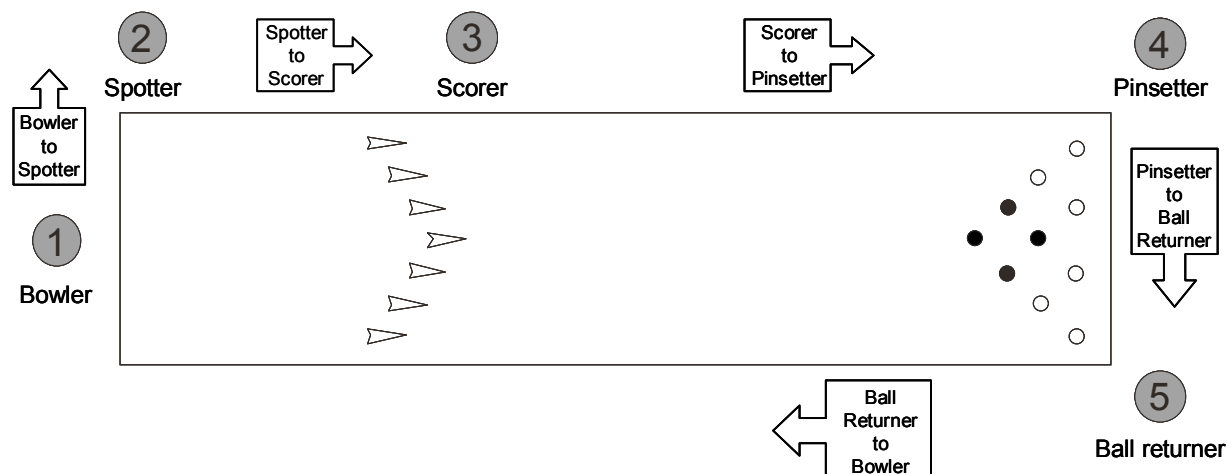
1. Bowling lanes
2. One ball for each lane
3. 4 pins per lane—1, 2, 3 and 5 pin

Note Using 4 pins takes less time to set up after each delivery. If students get proficient at hitting the 1, 2, 3 and 5 pins, they will be proficient at hitting all 10 pins.

Cue Words: None

Instructions:

1. Divide students into teams of 5 and assign each team to a lane.
2. Each student will have a “position” on the lane:
 - a. **Bowler:** Takes two deliveries of the ball.
 - b. **Spotter:** Watches the bowler for fouls, helps with technique (follow through, balance, etc.), and assists scorer if necessary.
 - c. **Scorer:** Keeps count of the number of pins knocked down.
 - d. **Pin setter:** Resets pins after each delivery.
 - e. **Ball returner:** Returns the ball to the bowler.
3. Ensure that everyone understands the positions.
4. Have students go to the lanes and practice Balance and Rotation.
5. The bowler will stand at the foul line in the balance position, take two swings and release the ball.
6. After the bowler has taken two deliveries, each student will rotate in a clockwise fashion (see diagram below).
7. When all students have taken their turn, the entire team should sit down around the lane to signal they have finished.



One-Step Delivery

Setting: Gym/multi-purpose room with bowling lanes be set up with four pins—1, 2, 3 and 5 pin on each lane.

Equipment:

1. Bowling lanes
2. 4 pins per lane—1, 2, 3 and 5 pin
3. One ball for each lane

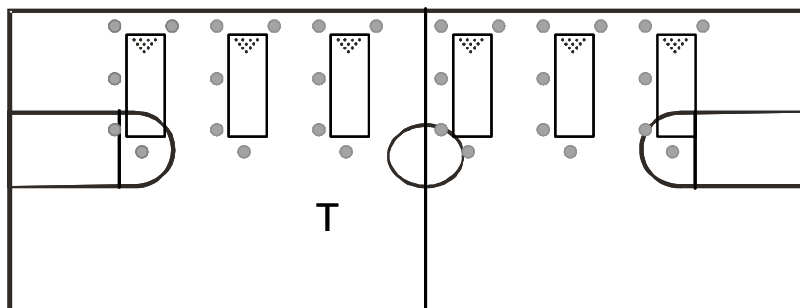
Cue Words: "Back and then booowl"

Instructions:

1. The One Step Delivery is first taught without the ball.
2. Divide students into teams of 5 and assign each team to a lane.
3. Ensure that everyone understands the lane positions.
4. The bowler will get into the Balance position at the foul line:
 - Refer to the movie *Toy Story* in which one of the main characters, Woody, talks by pulling a string on his back.
 - Have the bowler start with knees flexed and bowling arm relaxed.
 - The non-bowling arm is out to the side and their heel is up. To help students get into this position, have them imagine that they are pulling a string out of their leg. When they pull the string, their heel will raise about 2-3 inches.
 - Have them make a "zip" sound as they are pulling the "string." After all, there's no magic if you don't make the sound!
5. The bowler will then take two swings. The first swing begins with a backward movement of the bowling arm. Students will then say the words, "Back and then booowl" as their arm makes the two swings.

Tip To help with the rhythm of the arm swing, the bowler will start by moving the arm backward—cue word "Back." As the arm goes forward—cue word "and." As the arm goes back again—cue word "then." The ball is released as the bowler steps forward—cue word "booowl."

6. After the release, the bowlers should check their balance by keeping their back toe on the floor.
7. After two deliveries, each student will rotate in a clockwise fashion.
8. When all students have taken their turn, the entire team should sit down around the lane to signal they have finished.



T = teacher ● = student

Arm Swing

Setting: Gym/multi-purpose room. Students should spread out with enough room to swing their arms without bumping into each other or they can be in their teams on the lanes with enough room to spread out without bumping (see diagram below).

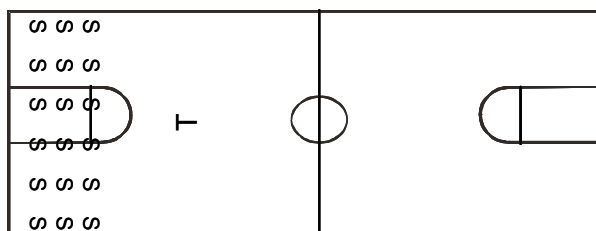
Teaching time: 5 minutes

Equipment: None

Cue Words: "Out, down, swing, and relax"

Instructions:

1. Have students get into a "Staggered" position:
2. Tell them to raise the hand that they will bowl with.
3. Then say: "On the same side of your body is a leg. At the end of that leg is a foot. Pick up that foot and step back 6-8 inches." Have students place most of their weight on their front foot.
4. Tell students to imagine that they are holding an imaginary ball with both arms between their waist and shoulders.
5. The cue words are "Out, down, swing and relax."
 - "Out" — bowling arm will extend out in front.
 - "Down" — arm will go down and back.
 - "Swing" — arm will swing forward.
 - "Relax" — arm will go back to its original position.
6. Have students repeat the movements and words several times to develop the rhythm and timing. Ensure that the movements are smooth and relaxed (no robot-bowlers!)



T = teacher S = student



Staggered Stance



...Out...



...Down...



...Swing...



...and...



...Relax...

Tempo Steps

Setting: Gym/multi-purpose room. Students should spread out with enough room to swing their arms without bumping into each other or they can be in their teams on the lanes with enough room to spread out without bumping into each other (see diagram below).

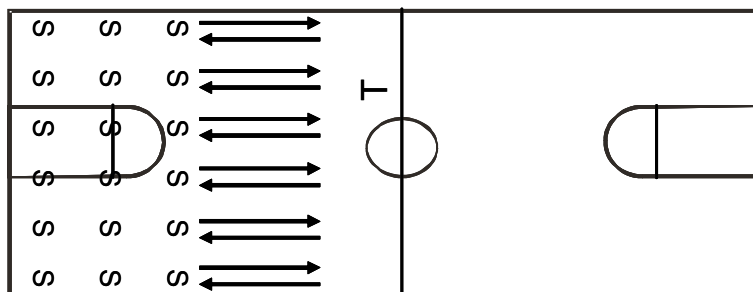
Teaching time: 8-10 minutes

Equipment: None

Cue Words: "Short, short, short, boooowl"

Instructions:

1. Have students get into a "Staggered" position.
2. Tell them to raise the hand that they will bowl with.
3. Say: "On the same side of your body is a leg. At the end of that leg is a foot. Pick up that foot and step back 6-8 inches."
4. Have students place most of their weight on their front foot, put their hands on their hips and look down at their feet.
5. Beginning with their back foot, students should take four short, shuffling steps forward, saying the words "Short, short, short, boooowl."
6. Have students practice this several times to develop a smooth step pattern for bowling.



T = teacher S = student



Staggered Stance

...Short...

...Short...

...Short...

...Boooowl...

Four-Step Delivery

Setting: Gym/multi-purpose room with bowling lanes set up with all ten pins on each lane (see diagram below).

Teaching time: 10 minutes

Equipment:

1. Bowling lanes
2. 10 pins for each lane
3. One ball for each lane

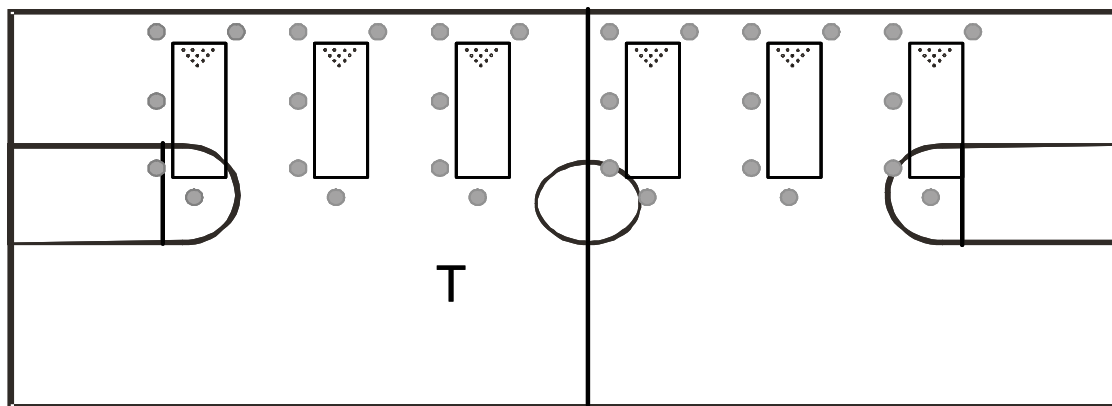
Cue Words: "One, two, three, four and a little bit more."

Instructions:

1. This lesson combines the Arm Swing and Tempo Steps into the Four-Step Delivery.
2. Divide students into teams of 5 and assign each team to a lane.
3. Ensure that student understands his/her "position" on the lane (refer to page 16 and the Rotation lesson).
4. The bowler will stand about 6" behind the foul line and *facing away from the pins*, will take four and a half steps—cue words "One, two, three, four and a little bit more"—away from the foul line. The "a little bit more" allows for the extra length of the final step. (Note: When bowling at a bowling center, this will accommodate the "slide" on the final step.)
5. The bowler will begin in a staggered stance, holding the ball ready to push away and take a full four-step approach ("short, short, short, booowl") along with the arm swing ("out, down, swing, relax") and release the ball. Each bowler will take two deliveries and then the team will rotate (as learned in Rotation lesson).

Safety Tip Ensure that students do not slide on the final step as their shoes are not designed to slide on the gym floor as bowling shoes slide on the approach at the bowling center.

6. Each team will make one complete rotation for practice and then another rotation for scoring.



T = teacher ● = student

The Bowling Center

The video segment on the Instructional DVD included in the front of this manual was designed to show students what it's like to be at a real bowling center.

The video explains the control desk, which is where they get their shoes, lane assignments and scoring sheets. It then shows them how to pick the right ball.

The video also covers etiquette, parts of the bowling center and the lane.

Showing this video to your students at the conclusion of your bowling unit is a fun way to introduce them to the bowling center!

Bowlopolis

The bowling center you visit may be a registered Bowlopolis center. In 2008, the Bowling Proprietors' Association of America (BPAA) and the United States Bowling Congress (USBC) introduced an exciting new brand initiative—Bowlopolis. Bowlopolis is an imaginary bowling center where everyone, young and old, look to bowling for happiness, livelihood, identity and love of the port. It is a place where fun, adventure and play help develop lifetime skills. Meet the characters of Bowlopolis—Layne, Reset, Carrie, Mr. Kegler and Kingpin at www.bowlopolis.com. (You can also locate a participating center in your area.) Bowlopolis bowling centers offer a series of 3-D animated episodes of Bowlopolis adventures on DVD. The DVD's help in educating youth on the finer points of bowling—safety, ball selection, form and sportsmanship.

Adaptive PE

Bowling is a sport that can be enjoyed by students of all ages, skill levels and physical abilities. Listed below are ways that the In-School Bowling curriculum can be modified to accommodate younger students and students with disabilities:

1. Reduce the size of the playing area:
 - Allow students to start at foul line rather than taking a four-step approach.
 - Allow students to sit at the foul line.
 - Allow students to start with the ball at their side rather than waist-high.
2. Adapt the equipment *
 - Lighter balls (3 or 4 pounds)
 - Smaller balls
 - Rubber flex grab balls
 - Handle grip balls
 - Bowling ramps
3. Adapt the activities to suit the students' *abilities* rather than their *disabilities*.
4. Begin slowly and gradually introduce new activities.
5. Assign a "buddy" to assist and make the student feel comfortable.
6. Ensure that all students respect each other.
7. Praise success—even small accomplishments!

For more information about Adaptive Physical Education, visit PE Central at www.pecentral.org.

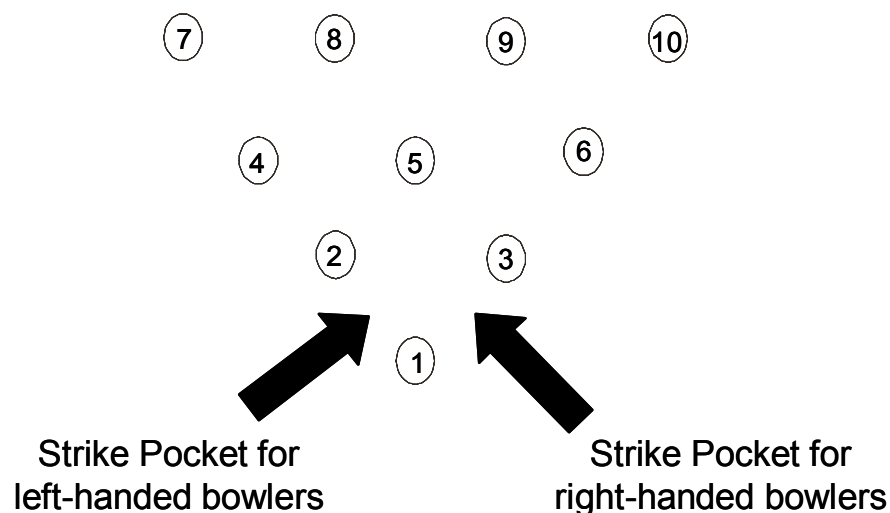
* This equipment is available through most PE resource catalogs.

Advanced Tips-Strike Pocket

The objective of bowling is to knock down as many pins as possible. The easiest way to achieve that is by making as many strikes as possible.

For bowlers to score a strike, they should aim for the *strike pocket*. The strike pocket is an area on the pin triangle between the number 1 and number 3 pins for a right-handed bowler and between the number 1 and number 2 pins for left-handed bowlers (see *diagram below*).

A ball that enters through the strike pocket of the pin triangle at the proper angle and speed will create a domino effect, called *pin action*, causing pins to bounce off each other as they fall, making more pins fall. Since a hook creates the maximum pin action, bowlers should try to roll a hook ball on their strike shot.



Advanced Tips-Spare Shooting

One method of spare conversion is the use of “key” pins. The ten pins in the pin triangle are numbered—see diagram below. The seven outside pins that form a “V” and point toward the bowler are the key pins. Any spare can be made by simply aiming at one of the seven key pin positions.

While the angle of a shot may change, the line of the ball remains the same, as does the ball speed and the method of ball delivery. In converting spares, it is important to identify the key pin for each spare shot. The first movement should be to the left or right on the approach to realign your starting position with the locator dots. The target area for any spare will be either the second or third arrow from the right side. Slight adjustments may be made to suit the particular delivery of a bowler; however, changes should not be made until a bowler is rolling a consistent ball that is hitting the intended mark.

