



Bowling for PE – Adaptations Manual

Equipment Used in This Video and Its Purpose:

- Sound Source
 - Sound source to place behind the pins to help student orient towards it and determine distance away
 - Should be placed in the center of the pins
- In Reach Bell Ball
 - Audible ball with bells inside for bowling activities
 - Easy to grip for all students
- Bowling Pins
 - Any standard bowling pins or other objects can be used
 - Cones can be used for pins
 - If students see one color better than another, cones in this color should be used
 - Cones can be turned upside down to make them fall more like pins
- Tactile Map
 - Tactile maps can be made from string, puffy paint, or pipe cleaners on cardboard and should reflect the environmental layout of the game
 - Push pins should be added to reflect where pins are on the alley
 - Great to show students where they are in relation to the target for bowling



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Video Script and Commentary:

- Video opens with Kirsten (teacher) and Kat (athlete) standing in a gymnasium.
 - “My name is Kirsten and I am the teacher.”
 - “My name is Kat and I am the athlete.”
- Slide of NWABA logo.
- Slide introducing video reads ‘Bowling for PE’ while voiceover reads the slide.
- Camera pans over equipment that will be used in this video. All of the equipment is laying in a line on the floor of the gymnasium. Voiceover describes the equipment as it appears on screen.
 - “Picture of sound source, in reach ball, cones, and tactile map.”
- Video transitions back to Kirsten and Kat standing in the gymnasium. The equipment is on the ground next to Kirsten’s feet. The cones are in a triangle form on the floor to the left of her feet. Kirsten will talk about pre-teaching skills, environment, specific game rules, and equipment. For more information about pre-teaching and underhand rolling, watch NWABA’s pre-teaching and underhand roll videos respectively.
 - “In this video, we're going to be talking about making bowling as a P.E. unit accessible for students who are blind or visually impaired. At the end of this video, we will talk about how these adaptations can be applied to bowling with a league or in a bowling alley. As with all activities, you want to make sure that the student is coming in with the same



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foundational knowledge as their peers. And pre-teaching is an essential way to do this. For more information about pre-teaching, please check out NWABA's pre-teaching videos.”

- Slide reads ‘Use a tactile map to familiarize the athlete with gameplay’ while voiceover reads the slide.
- Video transitions to Kirsten and Kat in the gym. Kirsten has a tactile diagram in her hands which she will use to orient Kat to the game. Kirsten also has a beeping sound source in her hands.
 - “Okay. Kat, in our tactile map, I'm going to hand it to you and I'm going to hand it so that is oriented with you as our rough triangle at the side closest to you. And that's where you will be standing to roll the ball down to our pins. At the opposite side of you, there are ten pins set out in a triangle where you have one pin and then a row of two pins, then three pins and then four pins. When we are doing this, I'm going to put a beeping sound source behind our last row of pins, and it'll make a consistent beeping noise. And if you orient to that, you will be able to hit the pins straight down the middle. Other equipment that can be used in this game to make it fully accessible are white pins so that they are high contrast compared to the environment around them, or if the environment is really light, adding some dark tape on them, or if a student sees one color better than the others, you can use cones that are set up upside down like they are next to me to make them act very similarly to pins.”



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- Slide reads ‘Use an artist's figurine with the athlete to demonstrate the movement’ while voiceover reads the slide.
- Video transitions to Kirsten and Kat in the gym. Kirsten has an artist’s figurine in her hands which she will use to show Kat the underhand roll. Kirsten describes the movements as she makes them.
 - “Kat, are you left-handed or right-handed?”
 - “Left-handed.”
 - “Excellent. And so, you are going to have the ball in your left hand. You are going to step back with your left foot and— your right foot is in front of your left foot.”
 - “I stepped back with my left foot.”
 - “Perfect. And then you are going to hold the ball in your hand and you're going to pull your arm back till it is behind your left hip, but it's still parallel to your body. And I'm going to show you our tactile artist figurine so that you can feel that and you can feel how his left arm is behind his body, but still parallel to his body.”
 - “Yes.”
 - “And then as he rolls the ball, he is going to roll it straight towards his pins. And if our sound source was right in front of her, she wants to make sure that she is facing that the entire time, because where her hips are and her feet are— that's where the ball is going to go. And when she finishes, she's going to have her arm out in front of her, still parallel to her body.”



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- Slide reads Use a variety of equipment to make the skill accessible for the athlete' while voiceover reads the slide.
- Video transitions to Kirsten and Kat in the gym. Kirsten has an In-Reach bell ball and sound source in her hands which she will describe.
 - “Our in-reach bell ball is a great resource for students to use as a bowling ball. The holes around the outside of the ball mimic a bowling ball, but the bells inside give it good audibility and students are able to hear if it is aiming towards the sound source (is it aiming to the left, to the right) and hear it as it hits our pins. I'll give it to you to have a chance to orient to it and an idea of how you might hold it. I like how you have your fingers held into the ball, that you can release them as you roll.”
- Video transitions so Kat is facing the pins and Kirsten is behind them.
 - “Okay Kat, now that you are facing our pins, I am going to turn on the sound source and let you know when it is a good time to roll the ball towards our pins. For students who are at a more foundational and beginner level, you can have them start closer to the pins and as they increase in their skills, you can have them step further away. Okay. Our sound source is on, and it is placed at the center of our back row pin. So, if you aim right towards it, you're going to have the best chance of hitting our pins down. And you're good to go.”



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- “Awesome.”
- Slide reads ‘Use a tactile map to review the skill with the athlete’ while voiceover reads the slide.
- Video transitions to Kirsten and Kat in the gym. Kirsten has a tactile map in her hands which she will use to show Kat which pins were knocked down.
 - “Okay Kat, you hit all of them down in one hit. So, you got our strike, so the ball as it came straight down the lane, you hit our front pin and that knocked everything else down.”
- Slide reads ‘Be patient. It may take several attempts for the athlete to progress in the skill’ as voiceover reads the slide.
- Video transitions back to Kirsten and Kat standing in the gymnasium facing the camera.
 - “And so that was how to make bowling fully accessible for individuals who are blind or visually impaired. Many individuals enjoy bowling with a bowling league or at a bowling alley with their friends or family and a lot of these adaptations can be used in that arena. The one thing that can't be done is you aren't able to put a sound source towards the back of the pins, but taking some time to help this individual orient to the alley and making sure that they know where they are starting, what line they can't cross, are there bumpers, how wide is the alley, how far away are they from the pins, and which sounds they should be orienting to, particularly if you are in a busy alley—will make this a fully accessible and enjoyable experience. Our tactile map



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becomes even more important when bowling in a bowling alley so that the individual is able to get a good understanding of what pins have been knocked down after they roll the ball once, and where they should be aiming to get a spare or anything else that they are aiming for. With good communication and accessible equipment, bowling can be enjoyed by athletes of all ages.”

- Slide reads ‘For more, visit the Sports Adaptations page at www.nwaba.org. Thank you for watching!’ while voiceover reads the slide.
- Slide of NWABA logo.