



KLiC Activity Scenario Template – Informal Setting

Activity title:

Ninjutsu stances and rolls

Subject:

Informal Sports Activity

Athlete age:

All Ages

Estimated duration:

75 minutes (excluding setup time)

Learning content

- 10 minute warm up
- teaching of punches, kicks, stances and throws
- practice kata
- training exercises
- optional pad work or sparring
- stretches to finish
- 15 minute lesson review

Learning objectives

The aim of the lesson is to advance the athletes skills and techniques through the use of the SensVest technology. Following the lesson additional time is granted to convey the wearer's performance to all the athletes as well to any observer.

Inquiry-based character (if applicable)

During the course of training the athletes may find themselves in a position where they're unsure to why or how a technique should be employed. For example a athlete may ask at what instance would a roll towards the opponent be necessary? In this instance the answer would be to avoid an attack and to prevent your opponent blocking your own.

Applied technology (if any)

KLiC SensVest with wrist and ankle accelerometers and base station with a Laptop and projector.

Materials needed (if applicable)

Floor mats, Gi (clothing worn by athletes and trainer)

Description of Activities

At the beginning of the lesson the athletes will be set to warm up their muscles, through a series of stretches, to avoid injure. Following this, the athletes will be demonstrated to by the ninjutsu master the lesson’s basic techniques, which will include punches, kicks, blocks and mid air strikes. During these exercises where athletes practice the techniques, one of the athletes will be wearing the SensVest kit and their data will be recorded.

While the athlete wearing the SensVest kit is practicing, it will be explained to observers what is happening, by discussing the athlete’s movements and in terms of the output data. During this explanation if any observers have any questions or need clarification of understanding for the output data this will be followed up at the end of lesson discussion.

After the performance of the athletes “Kamae no Kata” the SensVest will be removed from the athletes to prevent damage.

At the end of the lesson, after the athletes have finished their stretches, everyone will be given a talk on the performance of the SensVest technology worn by the demonstrating athlete. Explanations of how the output data is to be read will be given. This will be followed by answering of any questions. After the talk, the athletes, observers and trainer will then be requested to fill in a questionnaire which will be about their satisfaction of what they learnt while the SensVest technology was used.

Lesson Guidelines:

10 minutes	Warm ups
10 minutes	<ul style="list-style-type: none"> - Shizen No Kamae - Sokuho Kaiten, a sideways roll - Koho Kaiten, a backwards roll - Yoko Nagare, side roll followed by swinging leg across
5 minutes	Practicing the <<Something>> currently learnt by the athlete
10 - 20 minutes	Training Exercises
10 minutes	Optional pads work or sparring
5 minutes	Stretches to finish
15 minutes	Discussion about the results from the SensVest data and explain where athletes can improve their skills followed by a quick questionnaire for any observer, athlete and trainer to fill in making it clear in the feedback what they have learnt from the discussion.

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Shizen No Kamae



Shizen No Kamae is one of the basic postures adopted in Ninjutsu. The feet are kept shoulder width apart and the arms are at rest at the thighs. This posture is commonly adopted to allow for a athlete to proceed into the Ichimonji posture with little effort.

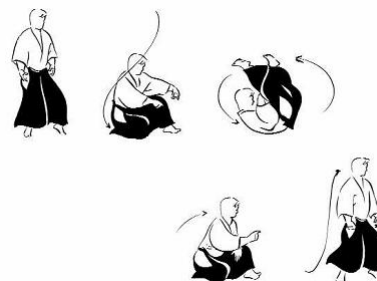
Sokuho Kaiten

The Sokuho Kaiten is a sideways roll. From Shizen No Kamae the athlete first twist their body at the waist to place their left hand, or leading arm, so that the hand is pointing in the direction of the initial stance. The right hand is placed adjacent to the tips of the fingers of the left hand but is pointing in the direction you're travelling in. Then the athlete proceeds to lay their left forearm on the ground while pushing off with their right leg and arm and proceeding to roll onto their left arm and left leg. After most of the roll has been performed the athlete's left foot, or leading foot, will make contact with the floor first. Once it has the athlete will then proceed to push with the left leg to stand back up as quickly as possible. Normally if the athlete is inexperienced in the technique they will start very slowly and increase in speed as they become more proficient in the move, later they will be able to perform this roll from standing where they will not need to kneel beforehand. By doing this the technique the athlete will be able to maneuver easily around their opponent with precision allowing them to more easily defend themselves.



Koho Kaiten

The Koho Kaiten is a backward roll. First the athlete must move their right foot, leading leg, half a step backward. The athlete then proceeds to lower themselves into a squatting position while putting their weight behind them with the left shoulder, leading shoulder, aimed to make the most contact. When the base of the spine makes contact with the floor the athlete needs to push off with their legs and bring them up to their chest. The back needs to curl while the weight of the athlete is shifted which is inducing the roll. The Aim is to roll over the leading shoulder, this is done by raising the right arm to little above the top of the head and then pushing up. Additionally we use the shoulder to roll over because it is safer than over the neck and easier to complete the move.



Yoko Nagare Kaiten

Yoko Nagare Kaiten is a sideways roll similar to Sokuho Kaiten but swings one of the legs during the roll. Initially this roll starts similar to Koho Kaiten, the athlete will move their left leg backwards, leading leg, and then proceed to twist at the hip to line up the roll to move sideways. Then the athlete will start to squat while keeping their right leg straight and kicking it upward. While rolling backward over the shoulder the athlete will remain to keep their leg straight. This is move is primarily a defensive technique used to avoid an attack but additionally can be used to strike someone while rapidly moving away. The attack isn't required to make contact as it can be



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used as a deterrent and frighten an attacker with a possible kick from below.

Training Exercises

Once these basic moves have been taught by the trainers athletes are then set up into pairs where they then practice with each other with the moves they have learnt during the course of the lesson. If there is any assistance that is required to be given to the athletes the trainer will be observing the athletes performance and correct them if they need to be. Alternatively if a athlete is struggling they may be taught a variation of the technique to resolve any issue they're facing. For example, the athlete is having difficulty doing a Sokuho Kaiten because of the way the hands are positioned they maybe rolling off to the side the trainer may show them a different way to position the athletes hands enabling them to succeed in the roll.

SensVest Discussion

After the athletes will have completed the lesson material a 15 minute discussion will be held to explain how the athletes can improve their performance with the use of the SensVest Technology. When a single athlete is wearing the SensVest with the wrist and ankle accelerometers the data will be captured and translated into a graph showing the X, Y and Z of the accelerometers. Indicating to the class what the orientation of the accelerometer when placed on the athletes body, the class will then be shown that when the athlete moves his arm forward the respective axis will show a spike of movement. Through this it can be show how much force a athlete is putting into the movements and what direction it is travelling in.

Assessment (if applicable)

The purpose of this informal scenario is to encourage the understanding of salient features that can be recorded during training, in order to understand movement and force. No specific assessment recommendation is given, as the technology is there to support the trainer in illustrating techniques in an empirical way.