



#### **Irish Heart Foundation Overview**

The Irish Heart Foundation is the national charity dedicated to saving lives by eliminating premature death and avoidable disability from heart disease and stroke. We campaign and advocate to change the public policy environment, improve services for heart health and stroke and are the driving force behind national awareness campaigns such as the Act F.A.S.T. campaign on the signs of stroke.

The Irish Heart Foundation promotes health in communities, workplaces and schools across Ireland and gives vital patient support through a nurse support line, high-quality information materials, and support groups for stroke, heart failure, ICD, Long QT, SADS and cardiomyopathy.

We are a registered charity supported by donations from the public and rely on the goodwill and generosity of our supporters to fund life-saving and life-changing work in prevention, patient support, CPR and campaigning.

Every donation helps more people in Ireland to live longer, healthier lives.

#### About Irish Heart Foundation's work in schools

The Irish Heart Foundation supports teachers and schools across Ireland in their wellbeing mission to create healthy schools. Our core programmes are evidence-based and co-designed ensuring they meet the needs of schools and align to the curriculum. We advocate for policies that promote healthy school environments and prevent childhood obesity. 80% of premature heart disease and stroke is preventable through healthy lifestyles, which is why the Irish Heart Foundation is committed to promoting lifelong healthy habits from an early age.

The Irish Heart Foundation's dedicated Children and Young People team is available to support schools. For more information, visit <u>www.irishheart.ie</u> or contact <u>schools@irishheart.ie</u>.



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#### WARM UP

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- Before we do exercise, like doing PE or sports training, it is necessary to prepare our bodies by warming up.
- When we are active, the heart and lungs work harder and faster to circulate blood around the body.
- Warming up involves doing light activity to gradually increase our heart rate so that the body is prepared for more intense physical activity.

**Warm Up Stretch:** After warming up our bodies and muscles with light activity, we then do a Warm Up stretch. We do not stretch without first warming up because our muscles are a little bit like plasticine. When we take plasticine out of the packet or tub, it is cold and hard. We need to warm it up by moving it around to make it soft and stretchy. Our muscles are similar; they need to be moved around and warmed up to become flexible enough to stretch.

#### Full body stretches are suggested in each Action For Life lesson plan before the first main activity (Warm Up Stretches) and at the end of each lesson (Cool Down Stretches). Particular attention should be given to stretching the body parts used within the lesson.

- The stretch should be held when a <u>gentle</u> tension is felt in the muscle.
- If doing a specific stretch causes pain, stop the stretch. Stretching should not cause pain.

**COOL DOWN** 

- When we finish exercising, we are still breathing fast and our hearts are still working hard to deliver blood all around the body.
- If we stop suddenly, the body thinks it is still exercising and continues to react as if it is.
- Cooling down means doing a lighter activity to ease the body out of its work mode and allow the breathing and heart rate to return to normal.
- Stopping suddenly without doing a Cool Down could make us feel dizzy or unwell and can make the muscles sore.

**Cool Down Stretch:** Cool Down stretches should be done after the cool down to keep the muscles strong, flexible and healthy. Cool Down stretches are usually held for longer than Warm Up stretches and done in a seated or lying down position for a deeper stretch. Stretching can help to prevent muscle soreness after physical activity.





= Area where stretch should be felt



- Hold the position when a gentle tension is felt: you should not feel pain or discomfort.
- Keep breathing normally through the stretches.
- Hold each stretch for 8-10 seconds.

#### **Ouad Stretch**

- Stand with feet hip distance apart.
- Bend left knee and catch foot.

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• Gently pull heel to bum.

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- Hold onto wall for support if necessary.
- Keep hips level and both knees close together.

#### Hamstring Stretch

- Step right foot backwards.
- Bend right knee, leaning upper body forward from hips with back straight.
- Place hands on thigh for support (not on knee).
- Gently push hips backwards as if sitting into a chair.
- Stretch should be felt on back of upper part of the straight leg.

#### **Calf Stretch**

- Step left leg back, keeping right knee bent from Hamstring Stretch.
- With straight back leg and feet flat on the ground, push weight through back heel into ground.
- Stretch should be felt in bottom of back of straight leg.
- Push against a wall or move feet further apart for deeper stretch.

# Complete stretches 1, 2 and 3 on left leg, then change to right leg.



the back with palms

facing the body.

• Gently squeeze shoulder blades together and lift arms only as far as comfortable.

## **Tricep Stretch**

- Stand with feet hip distance apart.
- Raise both arms overhead
- Bend one elbow and allow hand to drop between shoulder blades.
- Reach fingertips down spine and support elbow with other hand.
- Repeat with opposite arm. •

#### **Upper Back** Stretch

- Interlock fingers with palms facing body.
- Bring arms to shoulder height and drop chin to chest.
- Gently reach arms forwards, feeling the stretch between the back of your shoulders.

### **High Reach** Stretch

- Stand with feet hip distance apart
- Hold hands above head and stretch upwards.
- Feel the stretch along the whole upper body.



= Area where stretch should be felt

- Hold the position when a gentle tension is felt: vou should not feel pain or discomfort.
- Take slow deep breaths during the stretches.
- Hold each stretch for 10-15 seconds, unless otherwise specified.

#### Lower Back Stretch

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- Lie on back with knees bent and feet flat on floor.
- Place hands at back of thighs and pull knees gently towards chest.
- Keep upper back, shoulders and head on floor throughout the stretch.

#### **2** Lying Hamstring Stretch

- Lie on back with knees bent and feet flat on floor.
- Lift one leg and hold hands around back of thigh.
- Gently pull leg, only as far as comfortable, keeping the leg straight.
- Stretch should be felt through the back of the lower leg.

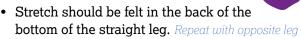
Repeat with opposite leg



- Kneel with both hands on floor (knees) below hips and hands below shoulders).
- Let out a deep breath, tuck chin towards chest and round the back imagine that you are trying to move your belly button up to the sky.
- Do not hold this position as you will move slowly into Cow Stretch on next breath in.

#### 6 Seated Calf Stretch

- Sit on floor with leas wide.
- Bend one knee, bringing the sole of the foot to rest on the inner thigh of the opposite leg.
- Point toes of straight leg towards the face and reach gently towards toes, keeping back straight.



#### 7 Inner Thigh Stretch

- Sitting on floor with straight back, bend both knees, placing soles of feet together.
- Hold legs at ankles, sit up tall and allow knees to fall towards the floor (don't push the legs).
- For a deeper stretch, hold feet and lean slightly forward.

#### **3** Lying Quad Stretch

- Turn onto front of body to lie on stomach.
- Rest head on forearm.
- Bend one leg and hold foot with hand on same side.
- Keeping both hips on the floor, gently pull the heel towards the bum.

Repeat with opposite leg

#### **Cow Stretch**

- Kneel with both hands on the floor as in Cat Stretch.
- Taking a deep breath in, arch the back, tilt the chin and look up.
- Gently press the stomach down and the hips up.

#### 8 Seated Chest Stretch

- In a seated position on the floor, place both hands behind the back.
- Rest the palms of the hands on either side of the spine at the lower back with fingertips facing downwards.
- With straight back and head facing forward, gently press elbows together to stretch across the chest.

Move slowly from Cat Stretch to Cow out and Cow Stretch on breath in. Repeat

Stretch and back for a few breaths – slowly moving into Cat Stretch on breath sequence 3-4 times.





Through this lesson, pupils should be enabled to... **Distinguish** between low and moderate or vigorous physical activities.

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**Experiment** with different ways to vary the challenge of a movement skill to feel more confident.

**COFFEE GRINDER** 



#### WARM UP - Here, There, Everywhere (High & Low)

Set-up: Create large square using cones. Discuss how moderate and vigorous intensity activities increase heart rate and breathing much more than low intensity activities. Review instructions from *Taking your Pulse* resource card.

- Pupils line up along back line of the square and teacher calls out directions: Here: Slow walk to opposite side of square. There: Slow walk to side of square teacher is pointing to.
   Everywhere: Stretch arms upwards.
- Teacher prompts pupils to feel their pulse and estimate if it is slow, moderate or fast.
- Teacher highlights that these are low intensity movements, which we will now change to moderate and vigorous intensity movements (e.g. Running for 'Here' and 'There', jumping jacks or bouncing for 'Everywhere').
- ➡ Teacher pauses for pulse check after some moderate and vigorous movements.
- Continue alternating between moderate or vigorous intensity movements, then low intensity movements.

Low intensity: Slow walking, holding a yoga pose or balance position, sitting/lying on the floor, stretching. Moderate or vigorous intensity: Running, jumping or hopping on the spot, any 'Huffer' movements from *Bizzy Breaks* poster.

**MODIFICATION:** For pupils who are wheelchair users, complete upper body movements such as half jacks with arms only. Use appropriate signalling methods for pupils with vision or hearing impairment (e.g. large print cards or buddying).

**STRETCH** before moving to Activity 1 (see Warm Up stretches)

Use this activity to highlight the amount of daily physical activity recommended for health (i.e. at least 60 minutes of moderate to vigorous physical activity every day).

#### **ACTIVITY 1** - Movement Challenge

Set-up: Ask pupils to gather up equipment from playing area, then take out mats and arrange around playing area. Instruct pupils to stand on mats individually or in pairs.

- Teacher leads pupils in performing a series of movements. Refer to the *Movement Challenge* resource card for illustrations of each movement and teaching notes.
- If pupils are in pairs, pupils take turns to perform each movement on the mat.
- 1) Stork Stand
- 2) Push Turn
- 3) Push Stand
- 4) Coffee Grinder

**MODIFICATION:** Demonstrate variations for each move. Stork Stand can be made easier by placing the sole of the foot low on the supporting leg, holding the foot out behind instead of against the leg, or holding onto wall or another pupil's shoulder for support. Push Turn and Push Stand can be made easier by modifying the plank position, keeping knees on the ground. Coffee Grinder can be made easier by resting hips on the ground in the side leaning position.

**MORE ACTION:** Movements can be incorporated into games. Play musical moves (like musical statues, but naming a different move or combination of moves for pupils to complete when the music stops).



**Remind** pupils that everyone is developing in different ways and everyone's bodies are different. Afford pupils **choice** for how to perform each movement, showing them how they can make each movement easier or harder. **Encourage** pupils to perform each movement in a way that provides the right level of challenge for them.



#### Equipment for Lesson: Cones, Mats, Taking your *Pulse*<sup>\*</sup> and *Movement* Challenge cards (from resource pack)



\*Prior to this lesson, it is recommended that teacher introduces taking the pulse as a classroom activity using resource pack.

#### **ACTIVITY 2 - Rolling Stone Under The Bridge**

Set-up: Divide pupils into groups of 3 and ask groups to stand in front of a mat.

- Teacher goes through the teaching points of a tucked roll.
- Two pupils form a bridge by facing one another with palms connected.
- A third pupil is tasked with performing a tucked roll (one full sideways rotation) under the bridge.
- Pupils forming the bridge can provide additional instruction emphasising safety ("make yourself as small as possible", "curl up tight", "hold arms tightly against the side of the body" etc.).
- Pupils swap, so that everyone gets a turn as 'the bridge' and 'the rolling stone'.
- Alternatively, the tucked roll could be replaced with a crawl or other movement.

#### **Teaching points for tucked roll**

"Kneel on the floor with knees tucked into your chest". "With bent elbows, keep your arms tightly at the side of your body".



"Keep your chin tucked". "Roll to one side until you have turned around completely".

**MORE ACTION:** The bridge can be made wider to provide more space for rolling or narrower to make the task more challenging. The rolling stone can perform more than one rotation with pupils forming the bridge side stepping to follow the 'rolling stone'.



When teaching the tucked roll, provide a variety of **demonstrations** by different pupils to showcase a variety of levels. First demonstrate the movement in components: ask pupils to volunteer to demonstrate different aspects of the skill in parts (e.g. hands tight by your side) even if they have not mastered all parts of the full skill.

#### **COOL DOWN** - Mexican Wave Pass it On

Set-up: Ask pupils to create a circle ensuring that all pupils have sufficient space between each other to move their arms freely.

- Pupils nominate a pupil to be the leader.
- Leader demonstrates a skill or movement (e.g. jumping, kicking, throwing, turning 360 degrees etc.).
- Starting with the pupil on their right, each pupil demonstrates the skill around the circle.
- When this skill goes full circle, the leader introduces a different skill.
- Once a number of skills have been completed, the leader can introduce new skills when the current skill has gone half way through the circle.

STRETCH at the end of the lesson (see Cool Down stretches)

## Assessment of / for learning

Self-assessment Use school camera (if school policies allow) to video individual pupils performing the tucked roll. Ask pupils to highlight the components they did well (knees tucked, arms tight etc.). Ask them to highlight one component they could improve. Alternatively pupils can work in pairs, taking turns to perform a tucked roll and using peer assessment.

Ouestioning Ask pupils to recall the daily physical activity recommendation for children and vouth. What intensity (low, moderate or vigorous) do these recommendations refer to?

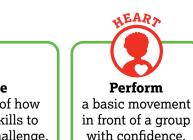
Ouestioning Emphasise how

important it is to vary the challenge of a skill/activity so that everyone can have a positive and rewarding experience. As a group, discuss what factors contribute to a positive experience in PE.



## Learning Outcomes

Demonstrate an understanding of how Through this lesson. to vary crawling skills to pupils should be adapt the level of challenge. enabled to...



**Use** verbal cues to synchronise movement with a partner.

#### WARM UP - Add-on Games

Set-up: Ask all pupils to form a large circle.

- Going clockwise, each pupil performs a new movement of their choice (jump, kick, spin, specific dance move, step etc.).
- After each movement is added, the whole group repeats the sequence of movements, performing the previous movements in order, followed by the new movement.
- Remind pupils that this game really targets our 'working memory' which is important for most things we do, like reading and maths.

**MODIFICATION:** Limit the sequence to a specified number of movements before beginning again (i.e. reset after every 5, 8 or 10 movements) or divide class into smaller groups with several circles. Offer pupils advice on how to remember

movement sequences, this could include verbally articulating each move out loud as a group (e.g. "clap hands, jump on one foot, spin around").

STRETCH before moving to Activity 1 (see Warm Up stretches)

**MORE ACTION:** Repeat the activity in smaller groups of 4-6. Each pupil must perform the sequence before adding their own. Each group can choose to either reset after each rotation around the circle, or continue to go around the circle adding new movements.



Some pupils feel anxious under a spotlight. Pupils who feel that they have to come up with their own movement and have to perform it in front of a group can experience fear and frustration. **Consider** pupils who might find this aspect of the task challenging and provide some examples of actions to perform before you begin the activity.

#### **ACTIVITY 1** - Spiders and Scorpions

#### Set-up: Randomly assign 4 pupils, or ask for volunteers, to be 'Scorpions'.

Scorpions are tasked with moving around on all fours facing upwards (Crab Walk) and 'stinging' other players. The rest of the pupils are Spiders who have to move around on all fours (Spider Walk).

- When a Spider is stung (caught by being touched with a hand) they must hold either one arm or one foot in the air (balance with 3 points of contact).
- Spiders can 'heal' the stung Spiders by touching their raised hand or foot, allowing them to return to the game.
- Continue for a few minutes until Scorpions have had a chance to 'sting' several Spiders and Spiders have had a chance to 'heal' each other.
- After one game, 4 new pupils are assigned the role of Scorpions.



MORE ACTION: Demonstrate variations of a Spider, e.g. crawl with knees on the ground (easier), crawl with a high arch in the back (moderate) or crawl with a low arch in the back (harder). Demonstrate variations of a Scorpion e.g. move with bum lower to the ground (easier), with a sunken back (moderate) or with a straight back (harder). Pupils choose the variation that challenges them at their own level.



When demonstrating variations on a skill, provide knowledge relating to what makes a skill easier and harder. For example, "a Spider is easier with a sunken back and a Scorpion is easier with a straight back because it means we don't engage the core, which is the muscles within our stomach and back". Emphasise that pupils can choose which version of the movement they want to try and that this may change over time as they progress.





# Action for Life



#### Activity 2: Sync and Switch

Set-up: Arrange cones (1 for every 4 pupils) in a line along one end of the playing area. Divide pupils into pairs and ask for 2 pairs to stand at each cone. Give each group a cone and ask a pupil from each group to place this 5-10 metres away directly opposite their group's start cone.

- As Teacher explains that "The goal of this activity is to move with your partner so that your movements are synchronised – this means moving together at the same time. We need to be aware of our partners and communicate with them to make sure we stay together."
- Pairs take turns moving with their partner from one cone to the other, using a specific movement, while remaining side-by-side and moving in a synchronised way with each other.
- When pairs reach the end cone, they remain here and the next pair travels from one cone to the other.
- Pairs complete the same movement on the way back to the start cone, then change the movement on their next turn.
- Movements to use could include (1) Marching (2) Side stepping (3) Inchworm (4) Spider Crawl (5) Crab Walk (see *Sync and Switch* card for teaching points).
- Teacher emphasises that pairs use the variation of each movement that is comfortable for both pupils.
- Pupils are encouraged to move slowly first, then increase speed as they gain confidence moving in a synchronised way with their partner.

**MODIFICATION:** Change the distance between start and finish cones to adapt the challenge; vary the distance between cones to ensure there is no comparison between pairs. For pupils who are wheelchair or mobility device users, all partners can take turns moving in front of each other and handing a ball overhead from back partner to front partner.

**MORE ACTION:** Instead of pausing at cones, challenge pupils to turn around the cone and continue back to the start line. Ask pupils to come up with their own ideas for movements, or combinations of movements as a sequence, to use.



Emphasise the effectiveness of **verbal cues** when trying to move 'in sync' with a partner. Encourage pupils to "*think and talk aloud*" (e.g. "*Right, left, right left*" or "*Step, 2, 3, 4, 5, 6, 7, 8*"). Task pupils with coming up with their own verbal cues to support synchronised movement.

#### **COOL DOWN** - Minefield

Set-up: Ask pupils to remain in their pairs and to help scatter the cones from the previous activity randomly around the playing area. Arrange disc markers randomly between the cones to create a number of obstacles.

- ▶ In their pairs, pupils spread out along one end of the playing area.
- One pupil from each pair closes their eyes and covers their eyes with their hands.
- Their partner must help them to walk to the other side of the room without touching any cones, disc markers or other pupils.
- Pupils can talk to their partners and walk with them, but not physically help to guide them.
- When they have reached the other side partners swap roles and repeat in the opposite direction.

at the end of the lesson (see Cool Down stretches)



## Assessment of / for learning Self- Questioning

Discuss what muscles are used for a Crab Walk, when performed the 'hard' way (with straight back). This includes triceps, abdominal muscles, hamstrings and quadriceps. Ask pupils to identify which muscles they knew previously, and which muscles or, muscle names, are new to them.

Selfassessment Ask pupils to write down a time they felt out of their comfort zone. Ask them to consider (1) what part of the task or activity made them feel uncomfortable and (2) one thing to change about the situation that could have made them feel more confident. **Questioning** Ask the group to think about the techniques they used to synchronise their movements in Activity 2 (e.g. counting a rhythm, looking at each other etc.). Note the different strategies and discuss other situations where these forms of communication might be used.



## **Taking your Pulse**

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As your heart beats and pumps blood around your body, you can feel a throbbing (your pulse) where an artery (blood vessel carrying blood from the heart around the body) comes close to the surface of your skin.

Checking your pulse can tell you how fast your heart is beating; this is called your heart rate. The heart rate is measured in beats per minute, sometimes shortened to BPM.

> Use the index and middle finger to feel the pulse, not the thumb.

## To find a pulse in your neck

- Put two fingers of your left hand onto the side of the windpipe in your throat.
- 2 Push down gently and you will find your pulse which feels like a small 'thump' (you can feel it going up and down). It can be a bit tricky to find this pulse, so you may have to try moving your fingers around to find the right spot.



## To find a pulse in your wrist

- Hold your left hand in front of you with palm facing up.
- 2 Using the pointer and middle fingers of your right hand, slide from the base of your thumb (the squishy part of your palm) to where your hand meets your wrist.
- 3 You might need to move the fingers around until you find the right spot. When you have found the pulse, count how many times you feel it while the teacher times 30 seconds. Multiply your score by 2 and this will tell you your heart rate per minute.



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## **Movement Challenge**



#### TEACHING NOTES

#### Push Turn

- 1 Start in a plank position on the floor, with arms straight and hands flat on the mat.
- 2 Keeping one hand on the floor, swing the other arm up and over while turning the body, landing in a Crab Walk position.
- 3 Swing the other arm around to return to a plank position.

**COFFEE GRINDE** 

#### MODIFICATION: Start

- on all fours, with knees bent,
- instead of plank position and
- keep lower legs on mat while
- using upper body to turn.
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- Stork Stand
- Stand facing forward with hands on hips.
- 2 Lift one leg and place the sole of this foot against the inside of the opposite leg (not against knee). Vary the challenge by bringing the foot further up the thigh (harder) or lower down the calf (easier).
- 3 Hold for as long as possible using hands for balance if necessary.
- 4 Repeat with opposite leg.

#### **MODIFICATION:** Bend elbow and lean on forearm instead of hand. Keep the other hand on the floor to help stabilise the body.

## Coffee Grinder

- Start in a side position, leaning on the side of your feet with one arm straight underneath you and hand flat on the mat.
- 2 Stretch the other hand up to the sky.
- 3 Walk the feet slowly around to make a full circle.
- 4 Repeat on opposite side with other hand.

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## Push Stand

- Begin in a plank position on the floor, with arms straight and hands flat on the mat.
- 2 Jump with both feet into a squat position, bringing knees to the chest while keeping hands on the floor.
- **3** Jump to a stand with arms overhead.
- 4 Return to squat position and jump both feet back into plank position.



## **Sync and Switch**





# Side Step Move sideways along the line. Take a wide step to the side. Then slide the other foot over to meet it.



EACHING NOTES

#### Inchworm

Fully bend knees and put hands on the mat.

- 2 Keeping your feet on the floor, walk the hands forward until your legs and back are straight.
- 3 Then, without moving your arms, take short steps with the feet until you are in the start position again.
- 4 Continue to walk the arms forward, then stepping feet towards them to move forward. For extra challenge, walk the feet in while keeping the hips high and legs straight.



Spider Crawl

1 Put hands and feet, but not knees, on the floor, keeping your hips high.

2 Walk forwards on your hands and feet, keeping your head

up to look forward.

3 When you get really good at this, try it backwards.

**EACHING** 

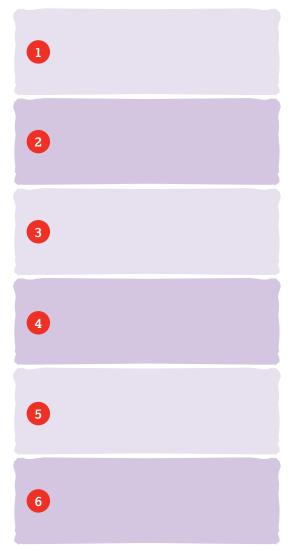
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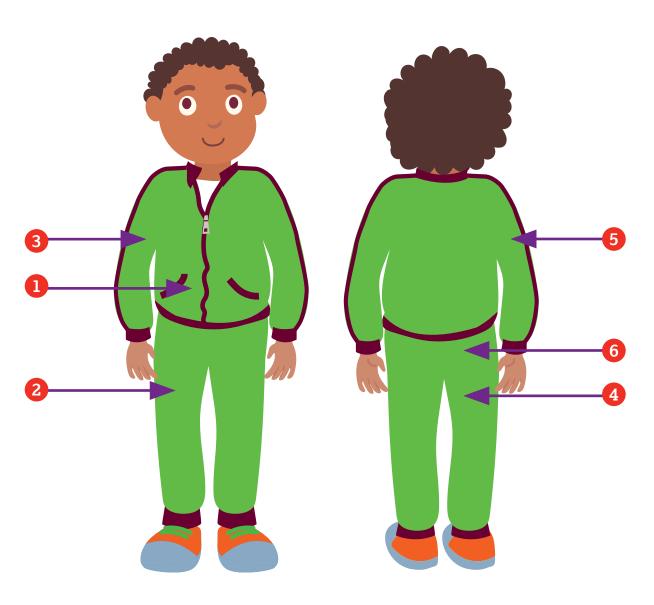


# **Muscles of the Body**



#### Label the 6 muscles below







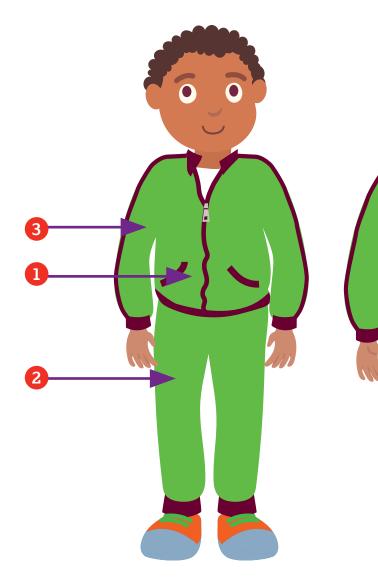
## **Muscles of the Body**

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For more information on the suite of supports for schools and training programmes for CPD, contact <u>schools@irishheart.ie</u>