Coding the Curriculum: Coding a Dance

**CURRICULUM LINKS**

FOUNDATION:

HPE:

* Practise personal and social skills to interact positively with others (ACPPS004)
* Practise fundamental movement skills and movement sequences using different body parts (ACPMP008)
* Identify and describe how their body moves in relation to effort, space, time, objects and people (ACPMP011)
* Test possible solutions to movement challenges through trial and error (ACPMP013)
* Cooperate with others when participating in physical activities (ACPMP012)

Mathematics:

* Describe position and movement (ACMMG010)

Digital Technologies:

* Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002)
* Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004)

The Arts (Dance):

* Explore, improvise and organise ideas to make dance sequences using the elements of dance (ACADAM001)

YEAR 1:

HPE:

* Incorporate elements of effort, space, time, objects and people in performing simple movement sequences (ACPMP029)
* Perform fundamental movement skills in a variety of movement sequences and situations (ACPMP025)
* Propose a range of alternatives and test their effectiveness when solving movement challenges (ACPMP031)

Digital Technologies:

* Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002)
* Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004)

The Arts (Dance):

* Explore, improvise and organise ideas to make dance sequences using the elements of dance (ACADAM001)

YEAR 2:

HPE:

* Incorporate elements of effort, space, time, objects and people in performing simple movement sequences (ACPMP029)
* Perform fundamental movement skills in a variety of movement sequences and situations (ACPMP025)
* Propose a range of alternatives and test their effectiveness when solving movement challenges (ACPMP031)

Digital Technologies:

* Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002)
* Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004)

Mathematics:

* Identify and describe half and quarter turns (ACMMG046)

The Arts (Dance):

* Explore, improvise and organise ideas to make dance sequences using the elements of dance (ACADAM001)

YEAR 3:

HPE:

* Combine elements of effort, space, time, objects and people when performing movement sequences (ACPMP047)
* Apply innovative and creative thinking in solving movement challenges (ACPMP049)

Mathematics:

* Create and interpret simple grid maps to show position and pathways (ACMMG065)
* Identify angles as measures of turn and compare angle sizes in everyday situations (ACMMG064)

Digital Technologies:

* Define simple problems, and describe and follow a sequence of steps and decisions (algorithms) needed to solve them (ACTDIP010)

The Arts (Dance):

* Improvise and structure movement ideas for dance sequences using the elements of dance and choreographic devices (ACADAM005)

**LESSON OBJECTIVES**

1. Learn, practice and apply simple Scratch block code elements that describe movement.
2. Read instruction sets written in simple language and translate them into Scratch code elements.
3. Write and communicate an ordered sequence of commands written in Scratch
4. Test, identify errors and re-design to develop a finished product.
5. Work with others both to design and implement solutions.

Extension: With assistance, use the code to program a robotic device, and consider ways to adapt the code to match real musical examples.

**RESOURCES**

* Examples of simple dances described in plain language (attached), or video depictions of the same

*Eg:*

Optional:

* Examples of Scratch block code elements in standard graphical form as cards or in printed sheets (to be assembled in order)

**LESSON SEQUENCE**

**ORIENTATION (10 min)**

 Explain to students that in many countries (such as Japan), robots are being developed to serve as companions for elderly or frail people because there are few young people to do this task.

 Physical activity is also important to maintain health, and dance is one way for this to be achieved. Of course, elderly people like different dances to younger ones, but luckily many of these old-time dances have been described in written form, and even some videos are available.

*(Showing short Youtube clips of old-time or bush dancing would be useful here – see Resources for some examples)*

 How difficult would it be to describe such dances in a way that a robot could understand?

**ACTIVITY: Identifying Dance Elements (10 min)**

Hand out copies of the Worksheet: