

Tackling the Technology Gender Gap Together:

Create a Dance

Level – Early Level

Subject area/s – Computing Science and Expressive Arts - Dance



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Subject area/s - Computing Science/Expressive Arts - Dance

Experiences and Outcomes –

Understand the world through computational thinking

- I can explore computational thinking processes involved in a variety of everyday tasks and can identify patterns in objects or information. TCH 0-13a

Benchmarks –

Understand the world through computational thinking

- Identifies and sequences the main steps in an everyday task to create instructions/ an algorithm for example, washing hands

Duration of time –

This lesson plan can be used with individuals, groups of a whole nursery/class. This can be explored over days or weeks depending on the learners interest. It would be expected that learners would have the opportunity to tinker with the elements of dance in a variety of situations and be able to discuss their learning throughout the process.

Computing Science Concepts and Approaches –

Tinkering
Algorithm
Creating
Evaluating

Overview of learning

This lesson involves learners exploring and creating their own algorithms through the medium of dance. Learners will be encouraged to tinker with creating body shapes and movements, designing their own and using others. Learners will then create their own dance algorithm using photographs, perform their dance and then evaluate how it worked.

Practitioners can use the dance card resources provided or take photographs of the learners to create their own dance card resource.

Pupil Objectives

- I can take a digital photograph (optional)
- I can explore different body shapes and movements
- I can select different movements to create a simple sequence/algorithm
- I can follow a simple sequence/algorithm to create a dance
- I can evaluate the sequence/algorithm/dance

Introduction

Practitioners may want to explore dance with learners, within the gym hall or other large space, using different types of music. Music from the British Library Sounds in Glow can be used and a help sheet on how to access this can be found in resources. Alternatively, you can use your own music. Learners should be encouraged to explore different body shapes and movements and discuss these with their peers.

During free play opportunities, learners can be introduced to the dance card resources. Learners can tinker with them, exploring how to create each movement and begin to tinker with different dance sequences to create a dance. (You may need multiple sets of photographs if learners wish to repeat a movement.)



You may wish to introduce new computing science vocabulary to the learners. Introducing new words using the whole environment allows learners to have a better understanding of these words and how they can be used.

Introduce the word Tinkering – Explain to the learners that you are going to let them explore the dance cards and try out different moves. They will have to find out which moves work together and which moves don't.

Introduce the word Creating – Explain to the learners that they are going to be creating their own dance. They can choose any dance cards they like. And that they can create things in other areas of the nursery/classroom too, E.G. the craft table, the construction area.

Optional – Practitioners can take photographs of the learners creating their own dance movements and these can be used with this lesson. These would have to be created before the main activity.

Main Activity

Practitioners should explain to the learners that they are going to create a dance. They can pick cards which will go together to create the dance. (You may need multiple sets of photographs if you intend the learners to work in groups or if the learners wish to

repeat movements.) This dance will be a sequence of moves. You will call these sequence of moves an algorithm, a dance algorithm.

Introduce the word Algorithm – Explain to the learners that you are going to create a dance but they must use the exact dance moves on the cards and they must use them in the correct sequence or the dance will not work.

You may want to ask the learners to work in pairs or small groups. Once the learners have chosen their cards allow them time to try out their routine. Their partner can give them feedback about how their dance algorithm reflects to their dance cards.

You may then want to ask each learner to show their dance to the rest of the group if they wish too. The group should then evaluate if the dance algorithm which has been performed is true to the dance cards which the learner had chosen. Learners should be supported and encouraged to use the words tinkering, algorithm, creating and evaluating.

Introduce the word Evaluating – Explain to the learners that evaluating means making a decision or judgement about something. They have to think about what they have been asked and decide if the dance performance matches the dance algorithm.



Practitioners may want to drag the photos onto a flipchart or PowerPoint to show the class on interactive white board if you have one.

Plenary

At the end of these activities it would be useful to discuss learning. Possible questions may include:

- What have you learned about creating a dance algorithm?
- What does tinkering mean and what did we learn when we tinkered?
- What is an algorithm?
- What do we understand about evaluating our dance algorithms?

Differentiation

Practitioners can support learners if needed. Learners can use a smaller number of dance movement cards.

Practitioners may want to allow learners to extend further by creating their own dance movements and cards. Or by giving learners a specific instruction which they must follow E.G. Use 10 dance movement cards, only use cards with hand movements.

Assessment Opportunities

- Observe if learners have an understanding of creating an dance algorithm
- Observe if learners can copy their dance algorithm accurately
- Observe if learners can talk about their evaluation of others dance algorithms and whether it worked or not
- Take digital photographs as evidence of learning. These can be used in an individual learning journey or in a group floor book.
- Gather learners thoughts throughout the process and write these down with any mark making

Teaching Notes

Tinkering – trying things out.

Algorithm – a sequence of instructions or a set of rules.

Creating – planning and making things

Evaluating – making judgements of decisions

More information about this can be found on the Barefoot Computing Science website.

<http://barefootcas.org.uk/barefoot-primary-computing-resources/concepts/>

Curriculum Links

I have the opportunity and freedom to choose and explore ways that I can move rhythmically, expressively and playfully (EXA 0-08a)

Inspired by a range of stimuli I can express my ideas, thoughts and feelings through creative work in dance (EXA 0-09a)

I have opportunities to take part in dance experiences (EXA 0-10a)

Key Vocabulary

Tinkering, Algorithm, Creating, Evaluating, sequence, planning, deciding, dance, moves

Resources required

- Lesson Plan – Create a Dance
- Digital Camera/Tablet to take photographs (Optional)
- Dance Movements Printable
- Music (see British Library Sounds within Glow)
- How to Access British Library Sounds in Glow help sheet
- Your own CDs/CD Player
- <http://barefootcas.org.uk>