

Musical implementation of patterns

Opportunities for learners

- To identify and to continue patterns
- To transfer patterns from one display format into another
- To make patterns tangible
- To link the subjects music and mathematics

Precognition

In order to realize learning facilities in a meaningful way, kids need to be familiar with the approach "Body Percussion". In this case stomping, clapping hands, clapping on thighs and rubbing one hand against the other are used.

Material

Dice, dice patterns for placing, paper strips for documentation of patterns

Introduction

The kids are sitting in a circle. There are big dice patterns with the number 1 to 4 in the middle of it. These patterns build a row representing a bigger pattern. Both the dice patterns and the complete dice later on should be uncolored in order to steer focus on patterns and numbers, not on color. In the beginning the pattern will be described and continued with the kids.

Work phase I

The kids go together in tandem groups. Each kid places a pattern with the dice. This pattern has to be both identified and continued by the partner. Afterwards they should be documented on paper strips.

Exchange

The kids come back to the circle with their patterns.

The teacher explains that patterns can be illustrated with the help of dice, but it is also possible to translate one pattern into another. Hence, one has to agree on a translation code, which means that every dice pattern is attached to one body noise. The teacher shows that for every number 1 of the dice a child has to stomp on the floor once. For every number 2 of the dice they have to clap their hands.

Several examples in which children can stomp and clap their hands collectively are attached. Now, a body noise is introduced for both number 3 and 4 of the dice.

For instance:

- 1 = stomp your foot on the floor
- 2 = clap your hands
- 3 = clap on your thighs
- 4 = rub your hand against the other



Now, the teacher points on a dice picture and the children produce the body sound accordingly. As the children master all exercises, work phase II will be introduced.

Work phase II

The kids practice the translation of their patterns in tandem groups. Every pattern has to be translated musically. The kids who are quick in doing so can develop a new pattern.

Exchange II

The kids are going back in the circle.

Some groups can place their patterns and perform their musical implementation. This can be a help for weaker kids due to be able to orient themselves on examples.

The class tries other possible examples collectively (examples are attached). Here, it is important for the teacher to emphasize that it's crucial to stick to a defined translation at every pattern.

The last work phase is explained:

2 tandems should partner up in order to interpret patterns musically together. The kids should not only be able to show the patterns to the class - the aim is that the other kids are able to place patterns based only on a musical body performance.

Work phase III

Now, 4 kids practice one pattern together. When all groups have acquired a pattern, the final exchange phase can be initiated.

Differentiation: Quick groups can invent and practice a second pattern.

Final exchange and reflection

The groups show their patterns. The tandems are placing the performed pattern at the same time. Afterwards the outcomes will be compared to the original. Here, it should be considered that the pattern 2-3-2-4-2-3-2-4 can definitely be equal to the translation 1-2-1-3-1-2-1-3.

Possible variations

Instead of body sound it is possible to translate patterns into body moves. Here, it is important to stick to a defined translation of each dice pattern. Possible translations could be to step to the left/right, to tip your foot on the ground, to draw a circle in the air, to turn around to the left/to the right and classic ballet positions.

Furthermore, it is also possible to realize the translation with musical instruments. In this case every child of the performing group has an instrument and plays it according to the connected sound of the dice pattern.

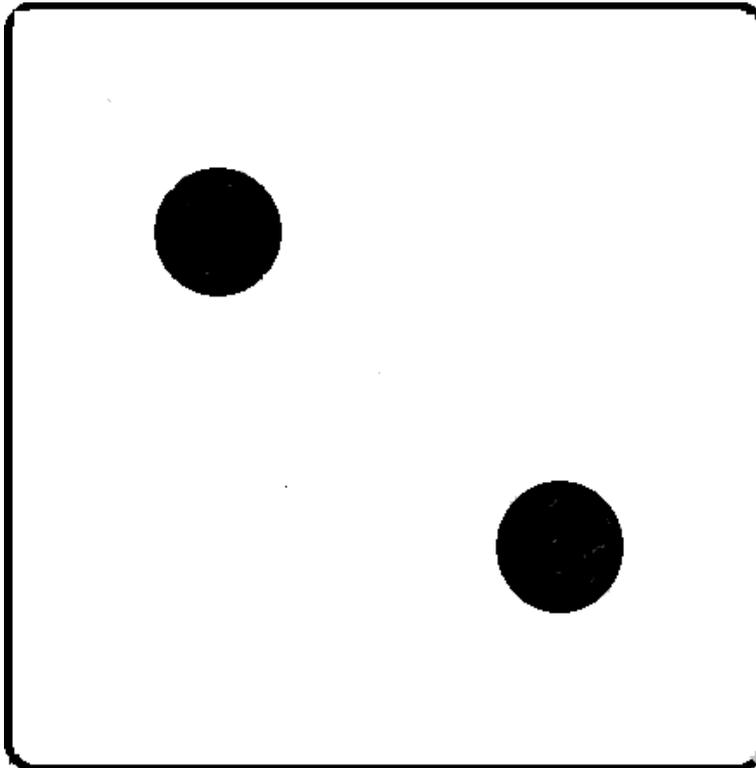
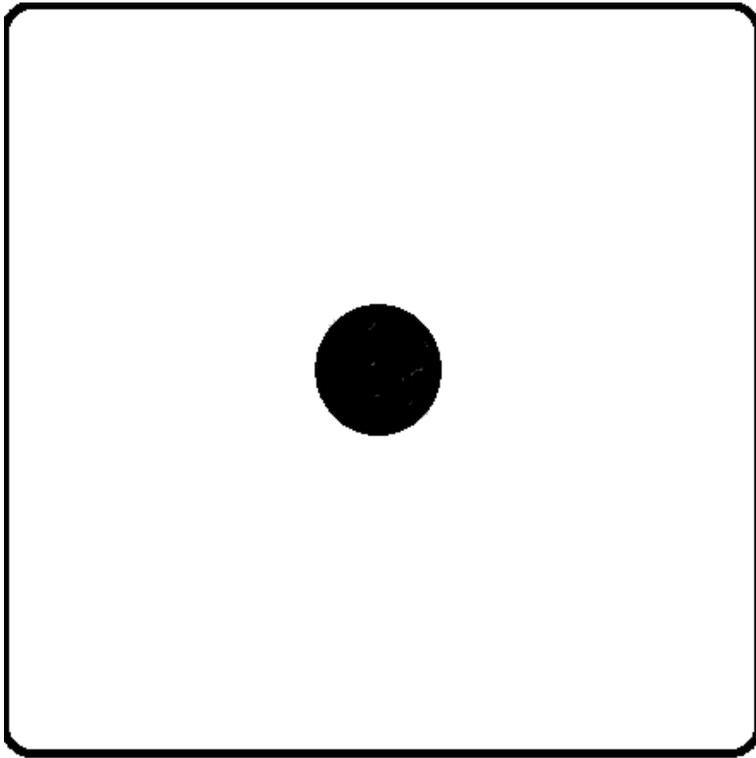


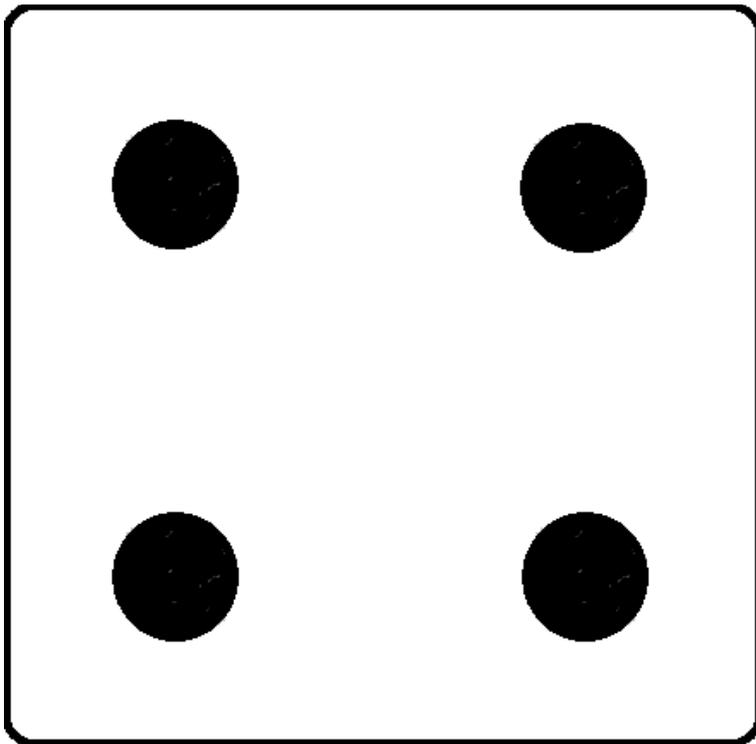
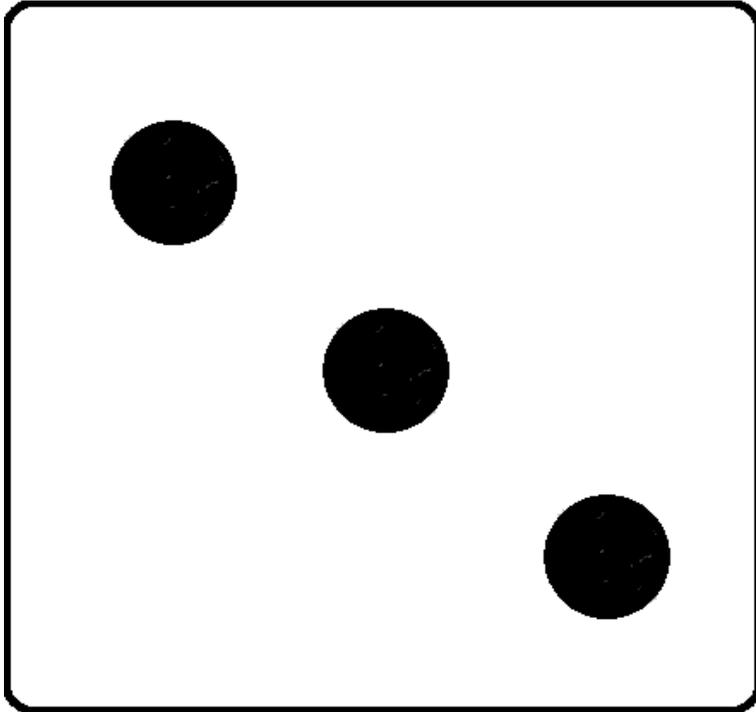
Attachment

Possible body sounds are:

- To click one's fingers
- To click one's fingers on the palm of the other hand
- To clap your hand on the side of your foot
- To clap your hand on your cheek while the mouth is forming an O
- Clear pronunciation of the sounds p, t, k, f, s







Examples for exchange 1:

