A DECK OF CARDS FOR
CREATIVE DRAWING

Based on algorithmic thinking.

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A deck of cards for creative drawing based on algorithmic thinking

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SEQUENCES

All cards are played according to the order they show up in the shuffled deck.

Each card represents either a **simple instruction** (drawing an object), a **repetition**, or a **condition**.

REPETITIONS

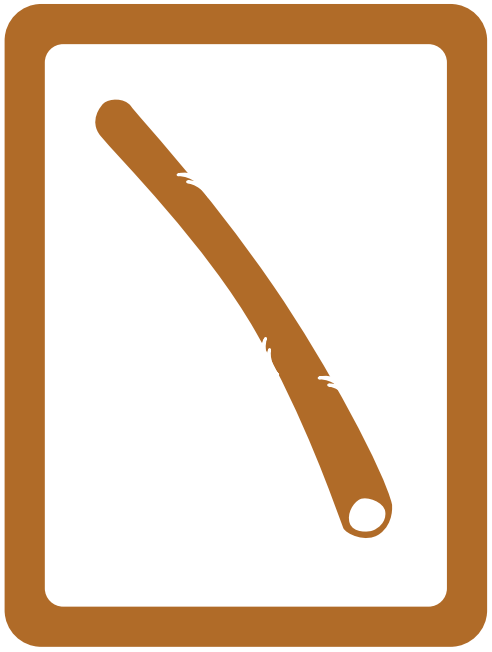
Gray cards that provide a sequence to be repeated a certain number of times.

CONDITIONS

Gray cards that set what to do depending on something that needs to be checked.

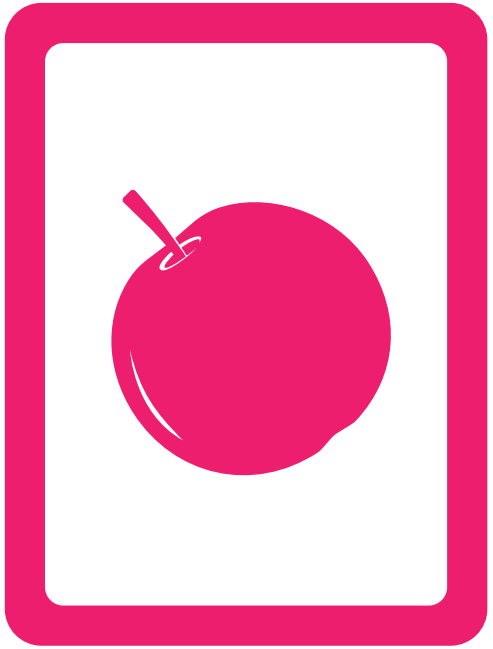
SEQUENCES OF
SIMPLE INSTRUCTIONS

Draw an object like the one
pictured in the card.



"Draw a twig"

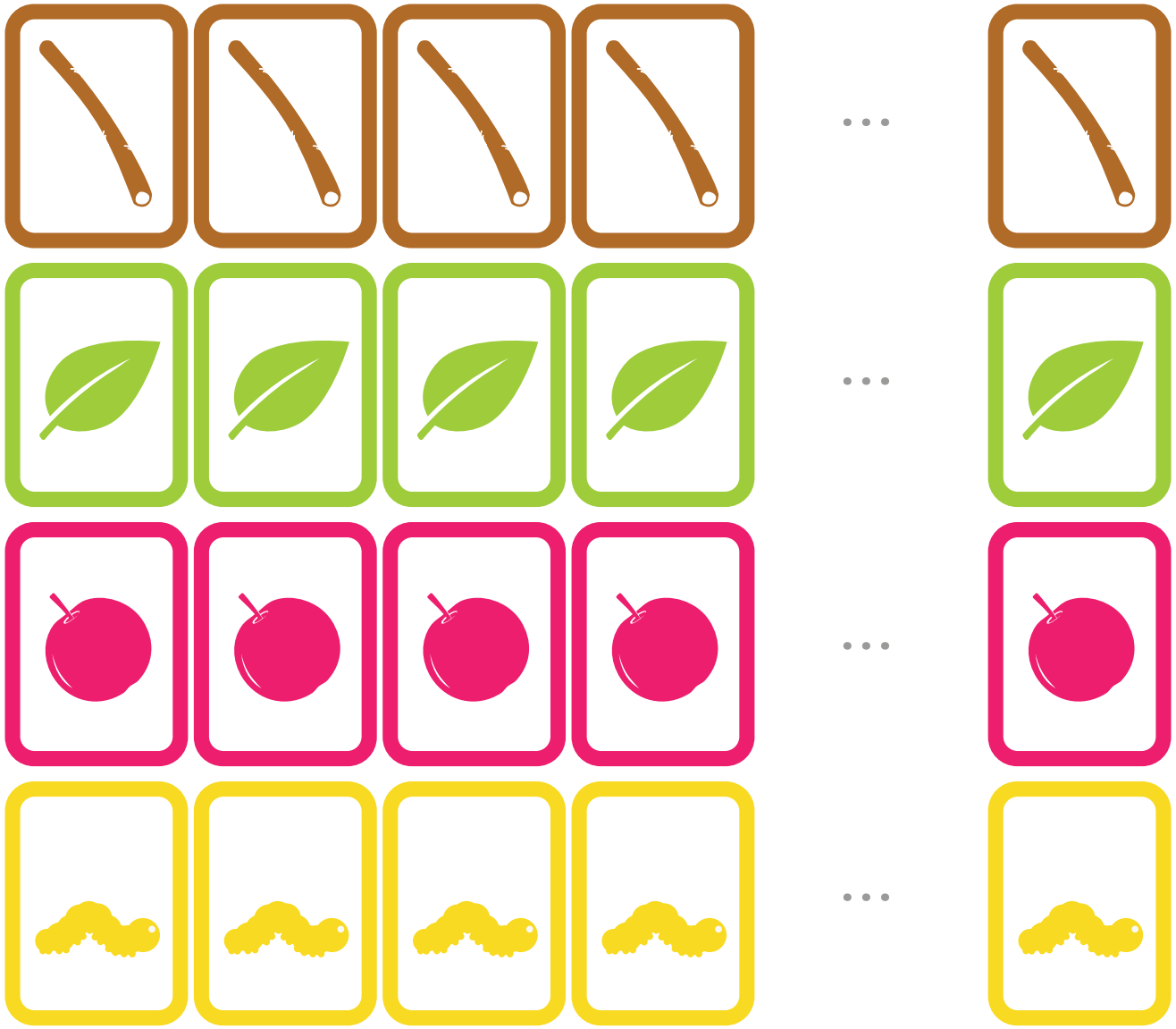
"Draw a leaf"



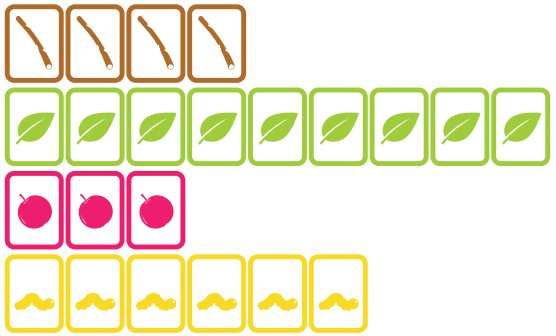
"Draw a fruit"

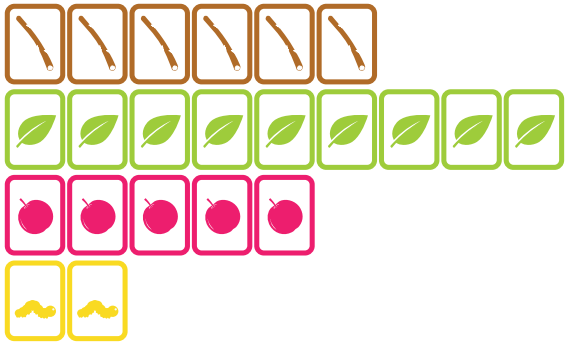
"Draw a caterpillar"

*Rules that are not made explicit can be set by players in each game, either tactilely or as a convention - new objects may or may not need to be connected to each other; sizes, shapes and even colors may vary, etc.



The deck includes the same number of cards of each object, but participants might decide to play with other distributions.



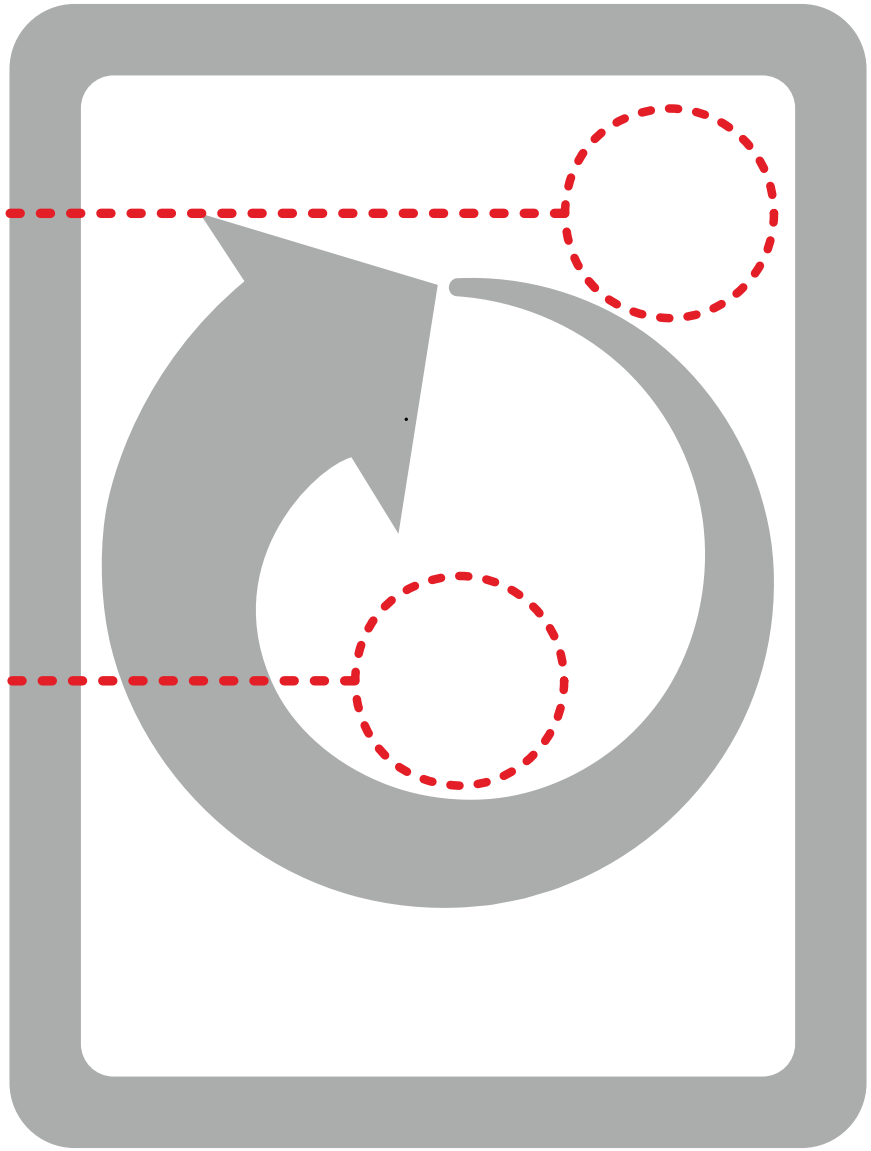


REPETITIONS

Draw a sequence of objects,
as many times as indicated.

How many times to repeat

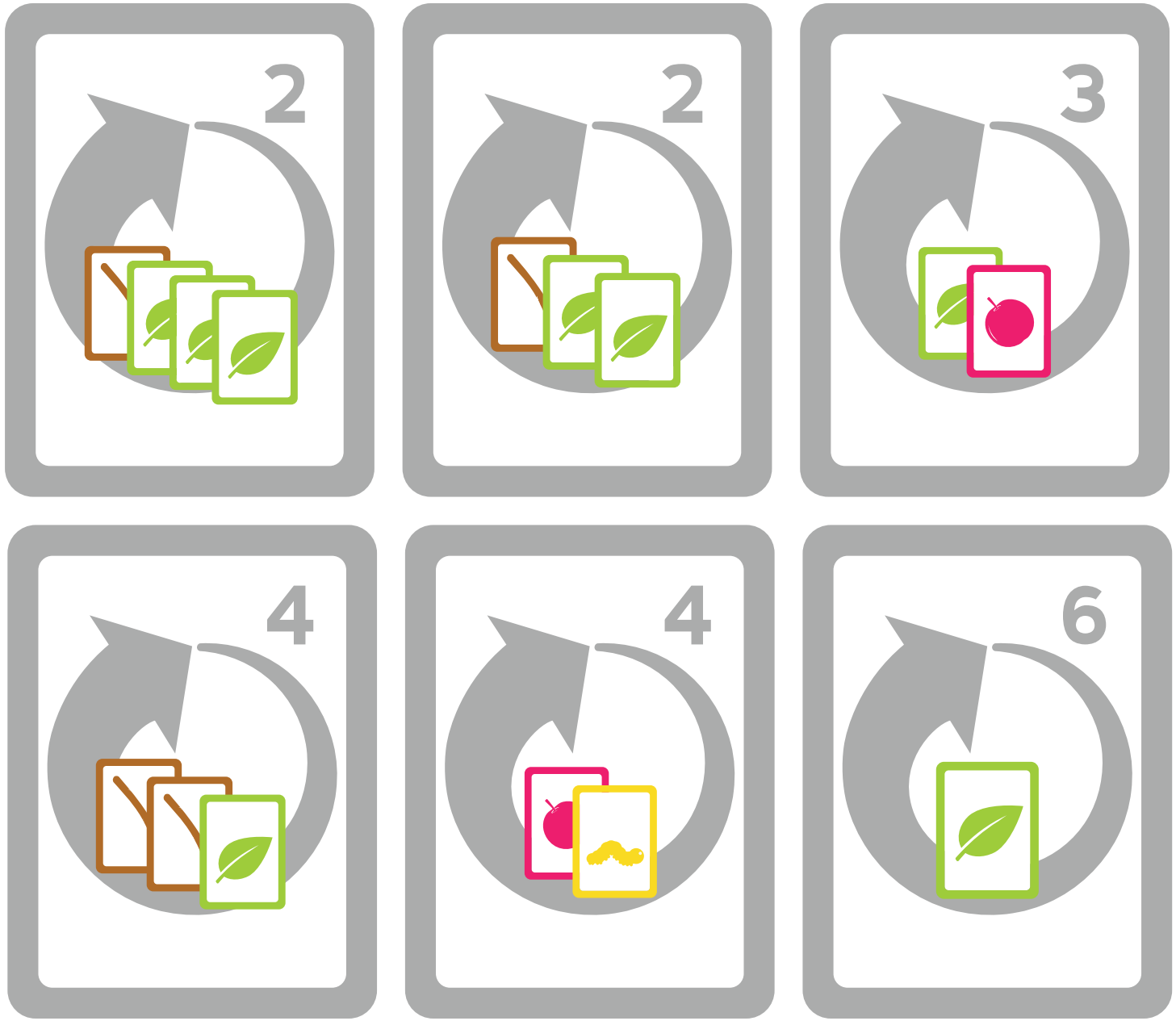
The sequence to be repeated

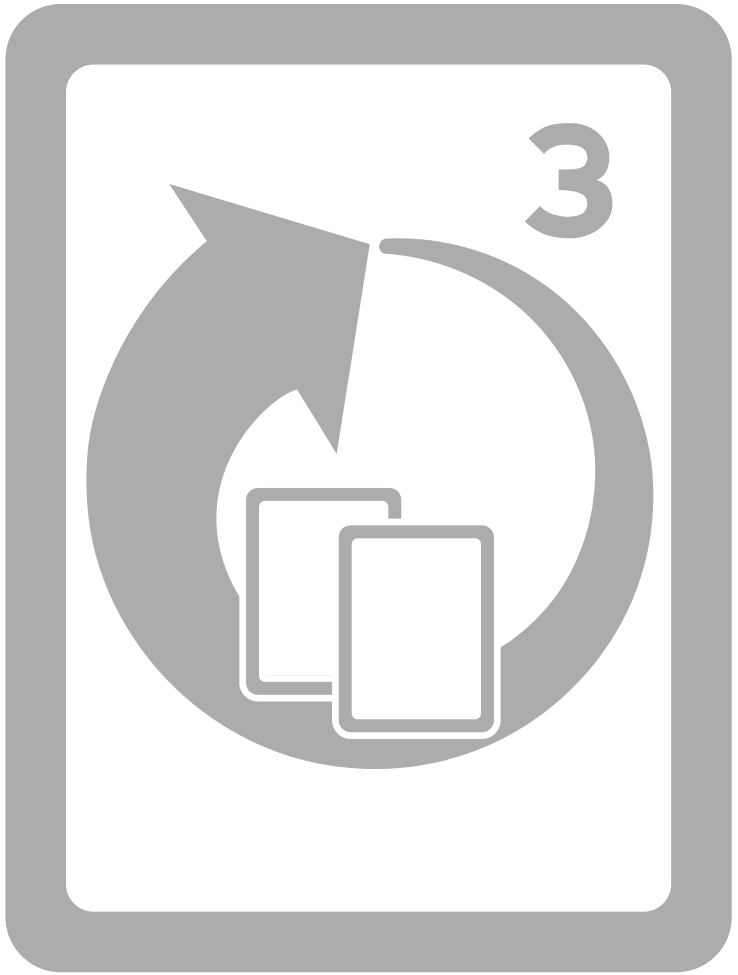


"Draw a twig and two leaves, four times"

Players can determine who will draw each object: either the player who got the card draws all the objects; or each player draws the set of objects to be repeated, until the number of times is met; or each player draws one object until all objects are drawn.

Other examples



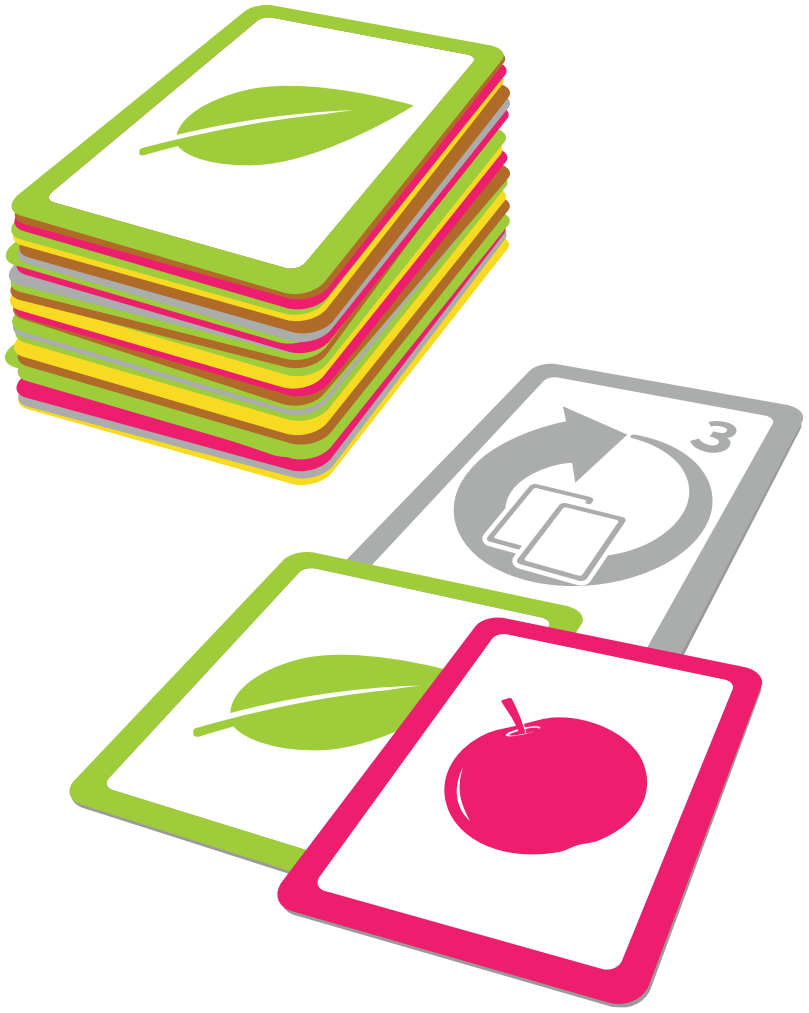


Advanced card

(remove if not appropriate)

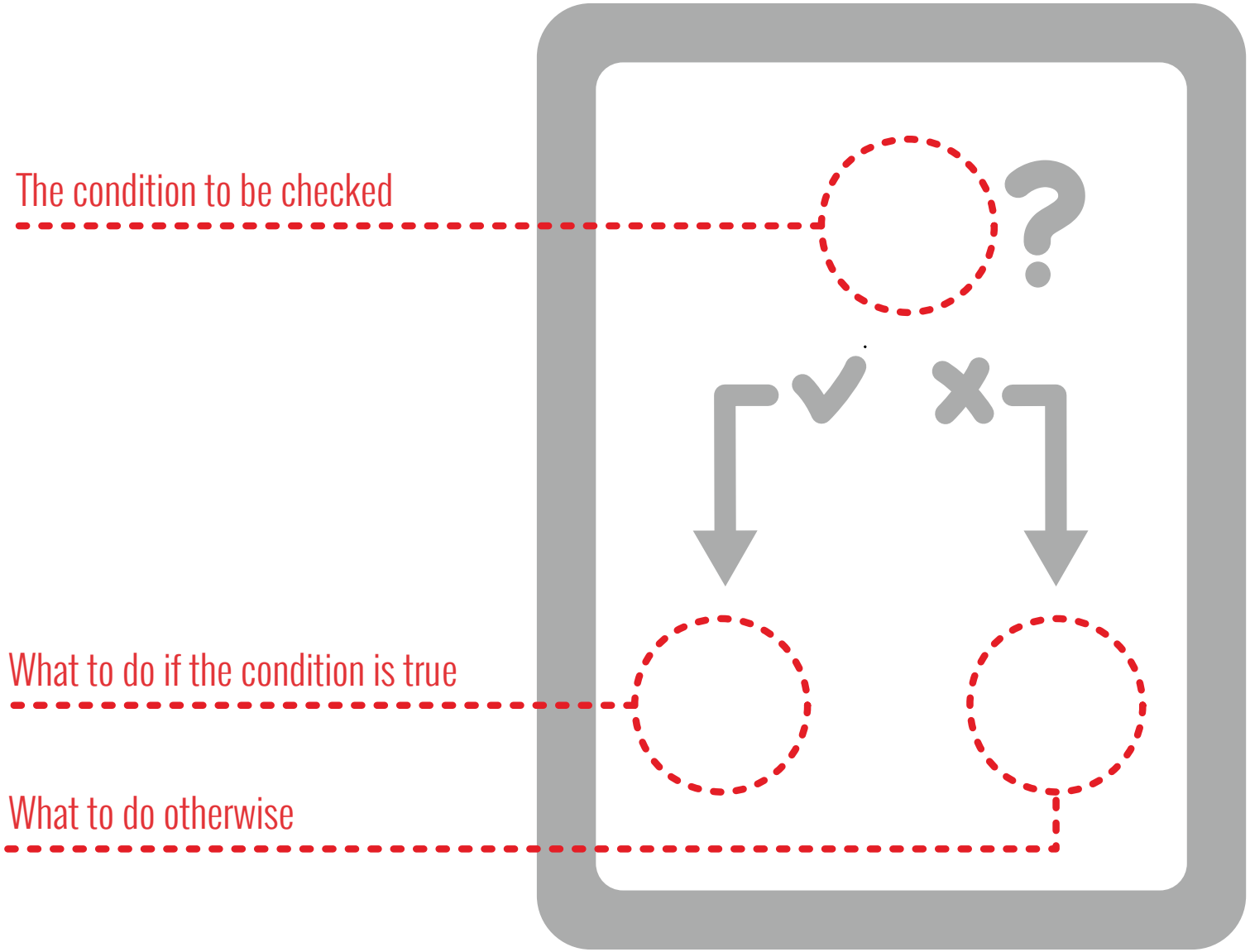
Take as many cards as represented, from the deck, so that they become the sequence to be repeated

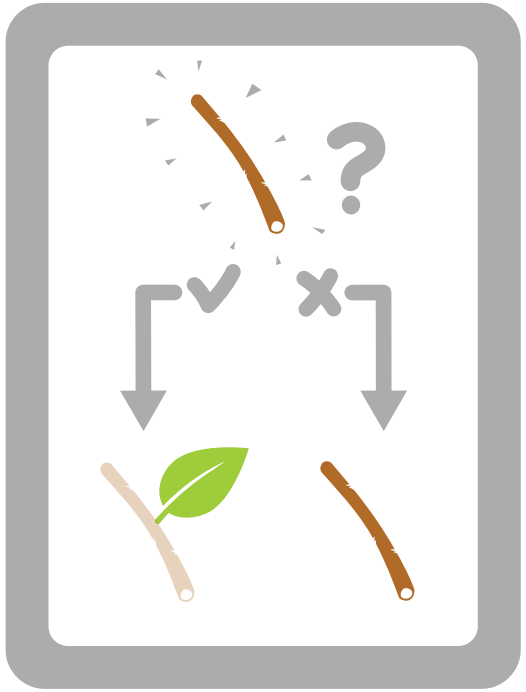
“Take two more cards from the deck. Draw that sequence three times.”



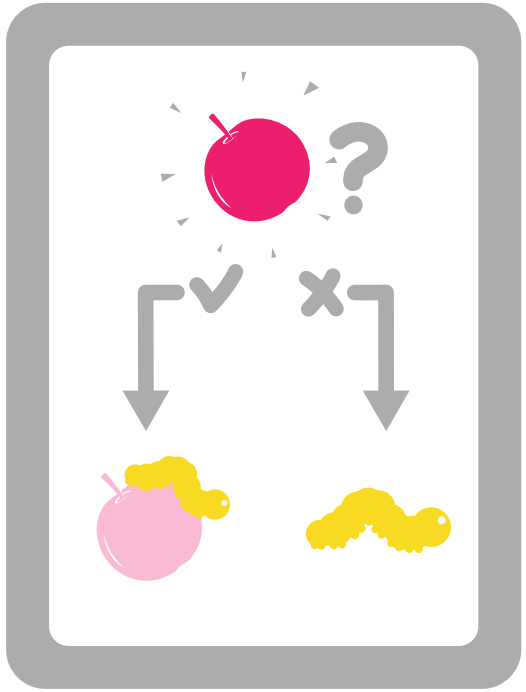
CONDITIONS

Depending on something being true,
do one thing or another.

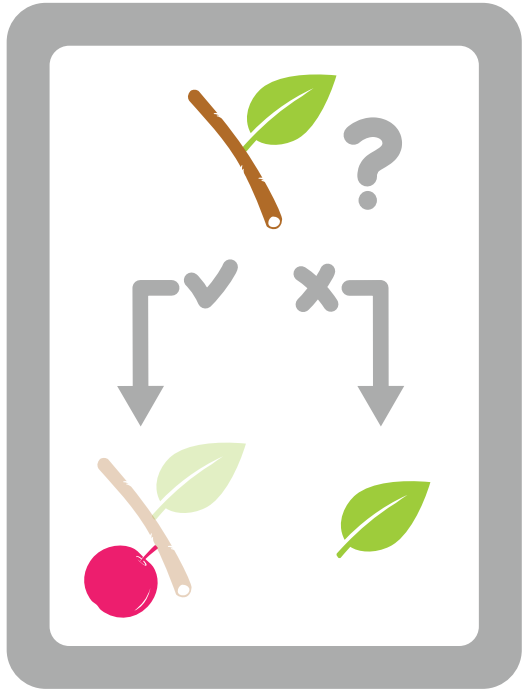

The condition to be checked
What to do if the condition is true
What to do otherwise



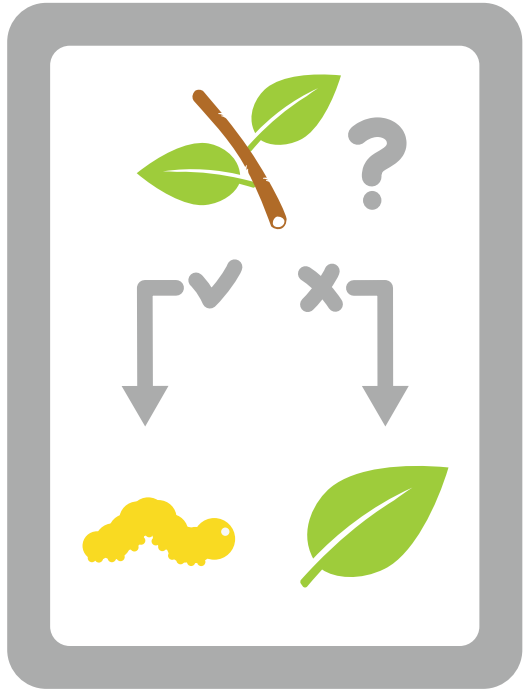
"If there is some empty twig, draw a leaf on it. Otherwise draw a new twig."



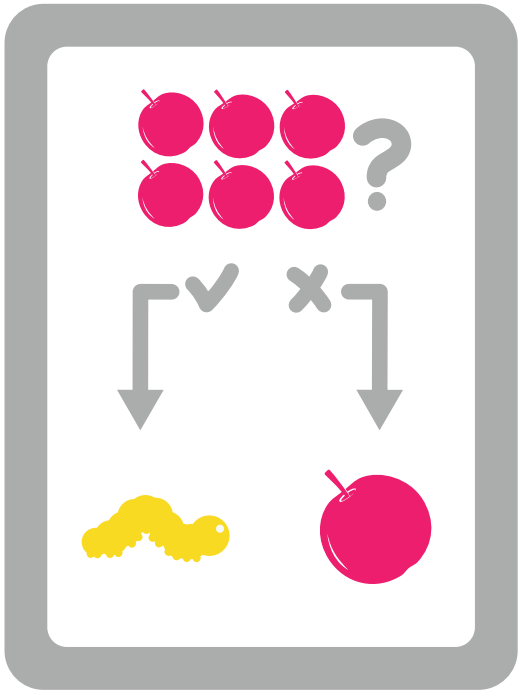
"If there is an unoccupied fruit, draw a caterpillar on it. Otherwise draw the caterpillar where you like."



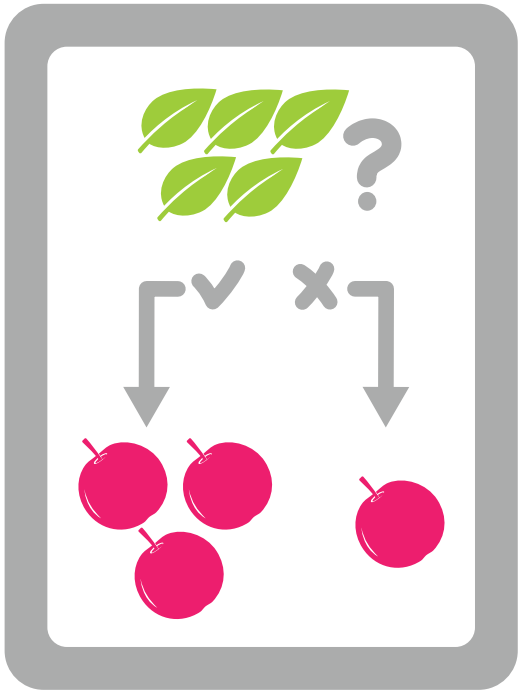
"If there is a twig with a leaf, draw a fruit on it. Otherwise draw a leaf wherever you want."



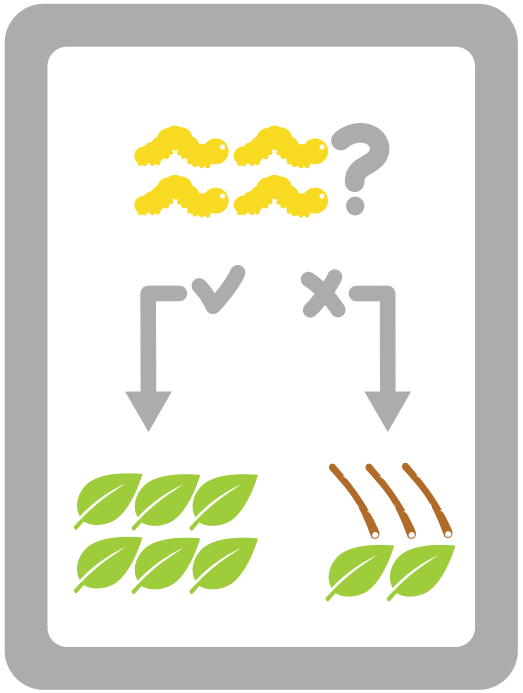
"If there is a twig with two leaves, draw a caterpillar somewhere. Otherwise draw a leaf."



"If there are at least six fruits*, draw a caterpillar. Otherwise draw a new fruit."



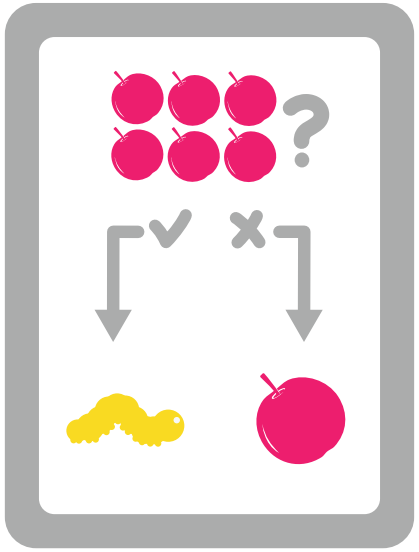
"If there are at least five leaves*, draw three fruits. Otherwise draw just one."

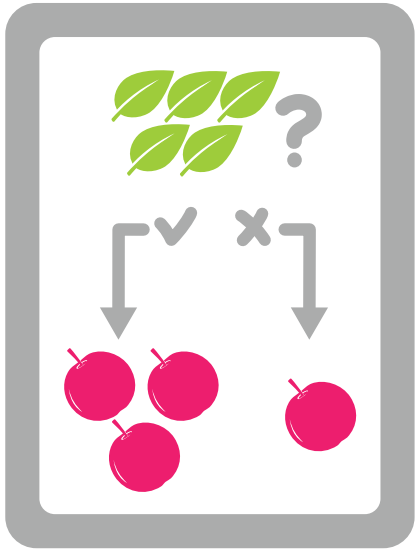


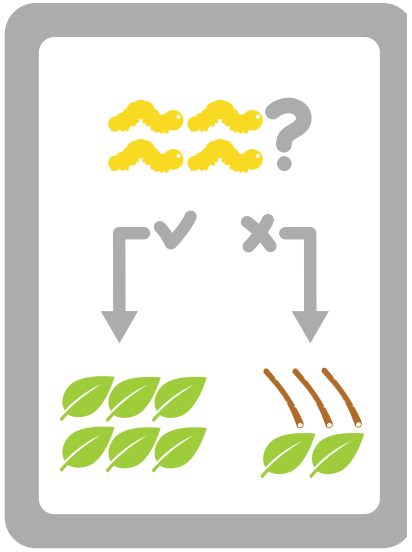
"If there are at least four caterpillars*, draw six leaves. Otherwise draw three twigs and two leaves."

*Other conventions such as checking the exact number and/or reacting to each set of the specified number of objects are legit, if players set so and act consistently.

Quantities represented by picturing the objects

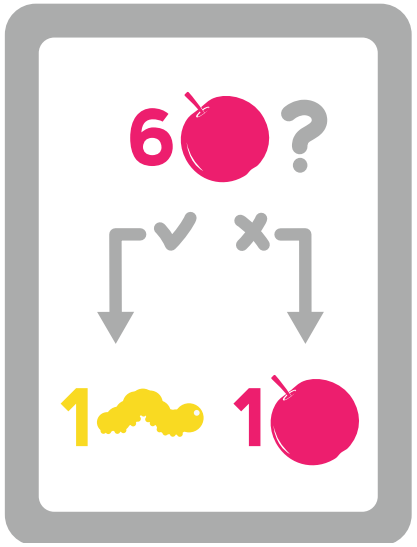


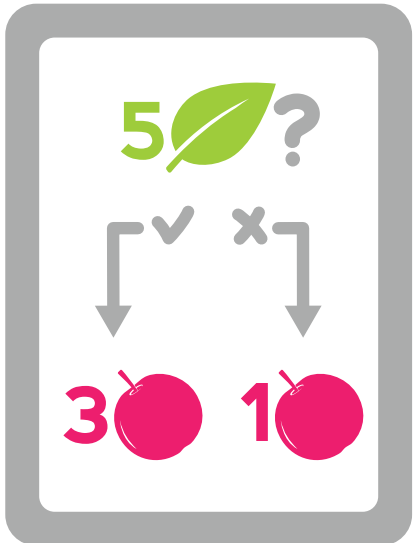


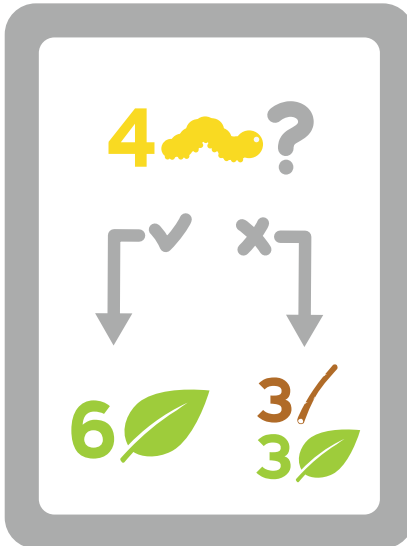


Quantities represented by numbers

To be used instead or together with the variant above, with children who can recognize numbers or when intending to introduce this representation.



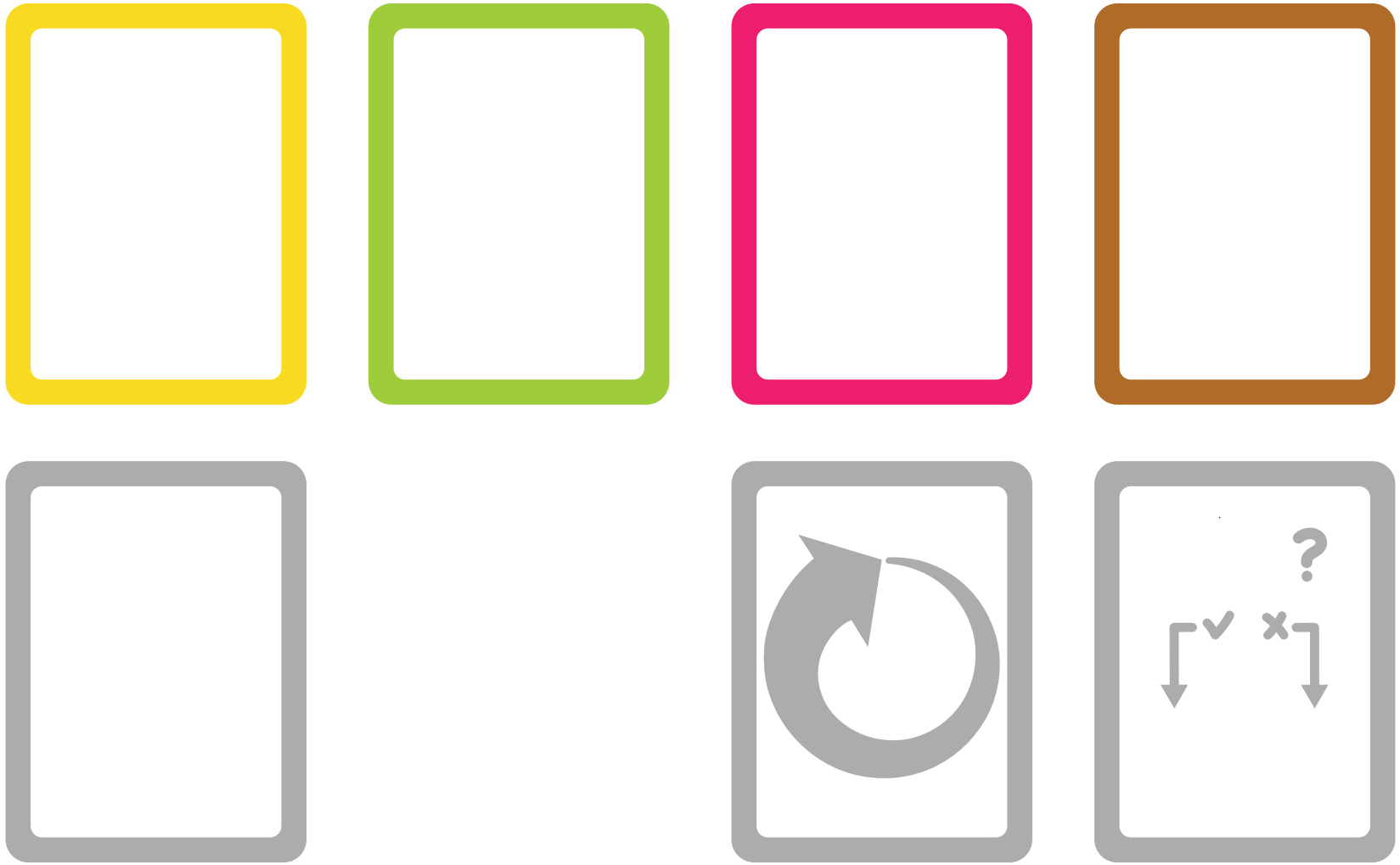


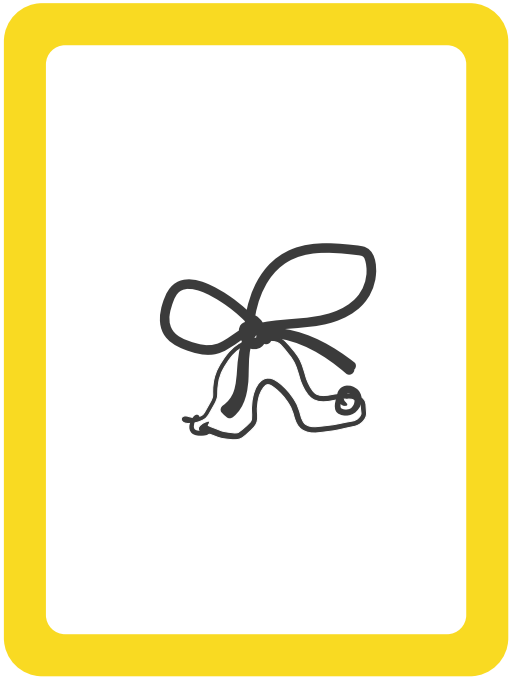


CUSTOMISATION
AND DYNAMIC DEFINITION OF INSTRUCTIONS

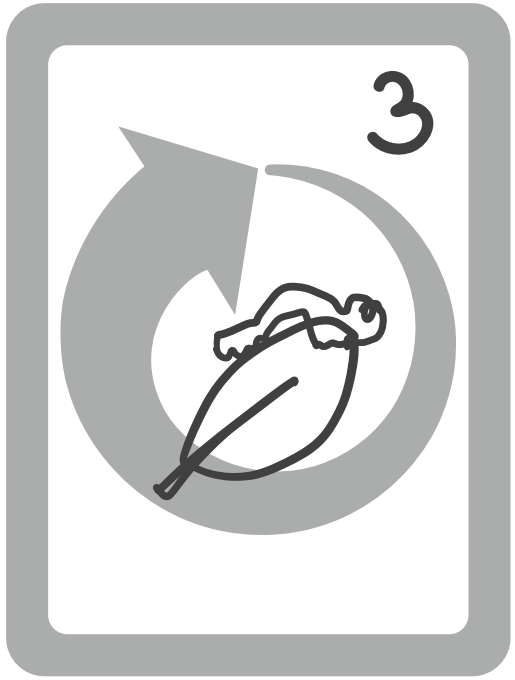
The deck includes empty cards that children or teachers can craft to serve their creativity.

Both the moment when the cards are created and whether they should be reused is up to the participants: e.g., a few empty cards might be shuffled together with the rest of the deck, so that a person who will get one is entitled to define what shall be done – and then that card might be reshuffled back into the deck so that someone else will eventually get it too.

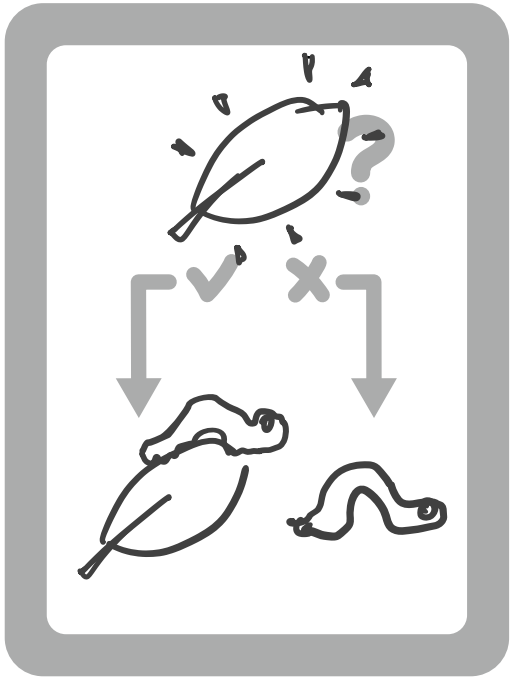




”Draw a caterpillar with a bow”



“Draw a leaf with a caterpillar, three times”



“If there is an empty leaf, draw a caterpillar on it. Otherwise, draw it somewhere else.”

CUSTOMISATION
AND BEYOND

Ultimately, players might design **new worlds** by creating new sets of objects to be sequenced and their respective repetitions and conditions.

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3 2 1 ALGO LITTLE

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