

# LABBEASY

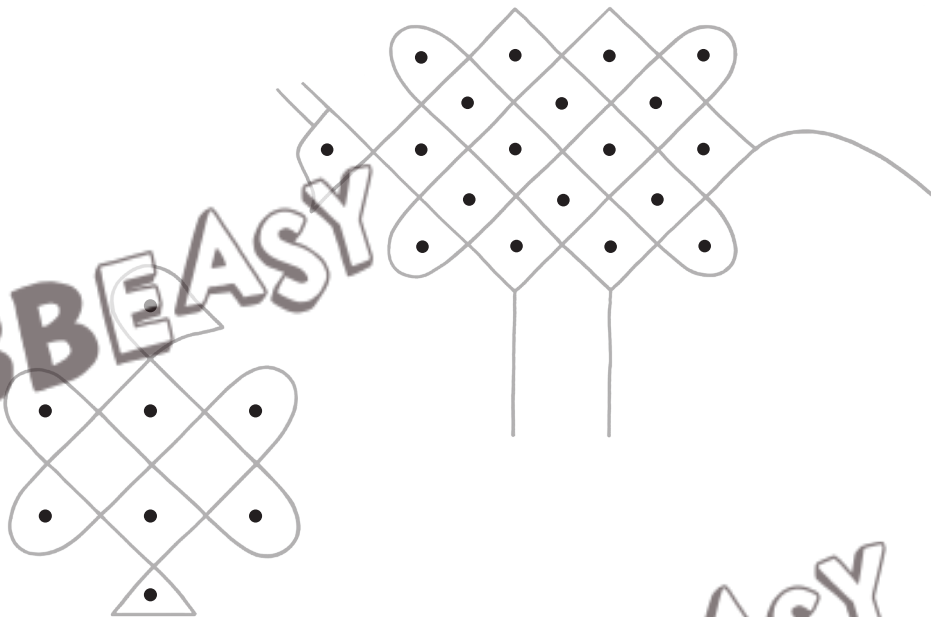
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## Sona Sand Drawings from Africa

12 Sona sand drawings in the style of African  
storytellers to trace & draw

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## Sona Sand Drawings from Africa

|                             |             |
|-----------------------------|-------------|
| About Sona .....            | Page 3      |
| How to make it .....        | Page 4      |
| Bird .....                  | Pages 5-8   |
| Antelope hooves .....       | Pages 9-12  |
| Scorpion .....              | Pages 13-16 |
| Antelope .....              | Pages 17-20 |
| Lion cub .....              | Pages 21-24 |
| Lioness .....               | Pages 25-28 |
| Lioness with two cubs ..... | Pages 29-32 |
| Flying ducks .....          | Pages 33-36 |
| Bull head .....             | Pages 37-40 |
| Spider in a web .....       | Pages 41-44 |
| Leopard .....               | Pages 45-48 |
| Eagle with a turtle .....   | Pages 49-52 |

### PRINT SETTINGS

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Only print out the pages you need.

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## INTRODUCTION

# Sona Sand Drawings from Africa

## Ethnomathematical Sand Designs from African History

The Chokwe are an ethnic group from southern Central Africa, now Angola, the Democratic Republic of Congo and Zambia.

The Chokwe are known for their geometric sand drawings, called Sona (Sona is the plural, Lusona is the singular). Sona are illustrations of ancient stories drawn in sand to aid storytelling and thus passed down from generation to generation. These sand drawings usually reference proverbs, fables, games or portray animals.



Within the Chokwe culture, boys learn the stories and their Sona from an early age. As they get older, the level of difficulty of the drawings also grows. Older men who know many stories, fables and riddles and who can draw especially complicated illustrations are called 'akwa kuta sona' (those who can draw).

## Mathematics Without Formulas

Upon closer inspection, a Lusona is not just a collection of points and lines, but real mathematics with highly complex systematic principles.

One could say: Sona drawings are mathematics without formulas, but hardly any storyteller would even remotely be thinking of any mathematical formulas, algorithms or fractals. What we're dealing with here is a different kind of mathematics- namely, ethnomathematics. This is when we understand mathematical ideas without using classic mathematics.

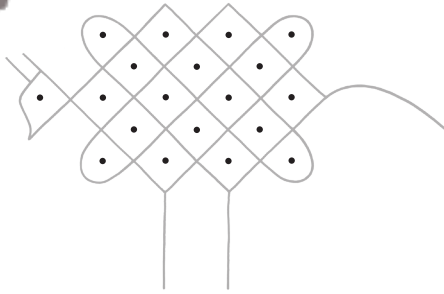
Drawing a Lusona is fascinating and fun- if you know how. From the infinite number of possibilities, we have chosen Sona that depict animals. As a substitute to the oral tradition from generation to generation, we have created Sona worksheets from which children can learn to draw Sona in a way that's fun and practice them again and again (preferably until they can draw them from memory- just like children in Africa). Drawing Sona promotes concentration and trains memory and hand-eye coordination.

## HOW TO MAKE IT

# Sona Sand Drawings from Africa

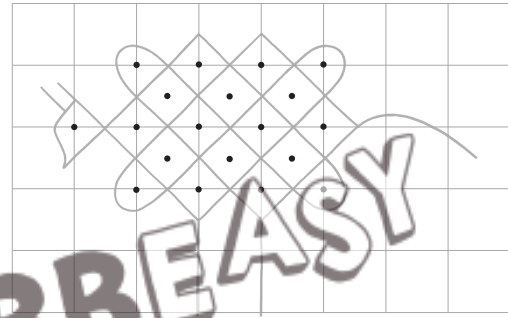
There are four worksheets for each Lusona:

### WORKSHEET 1



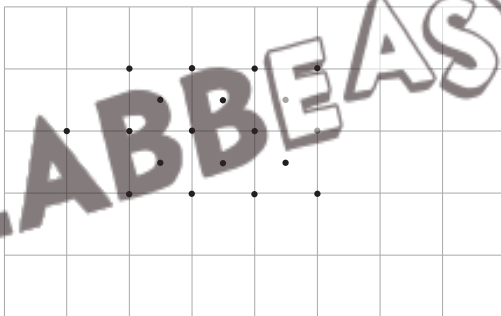
This worksheet is intended for tracing. So repeated tracing doesn't become too boring, you can trace the lines with crayons using the eight colors of the rainbow. You can also trace with your index finger, as if drawing in the sand.

### WORKSHEET 2



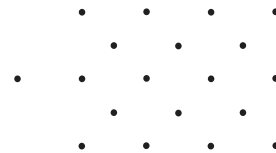
This worksheet is also intended for tracing. The grid is there for guidance and to prepare you for worksheet 3.

### WORKSHEET 3



Trace the Lusona using this worksheet without lifting the pencil. The dots and the grid are there for guidance.

### WORKSHEET 4

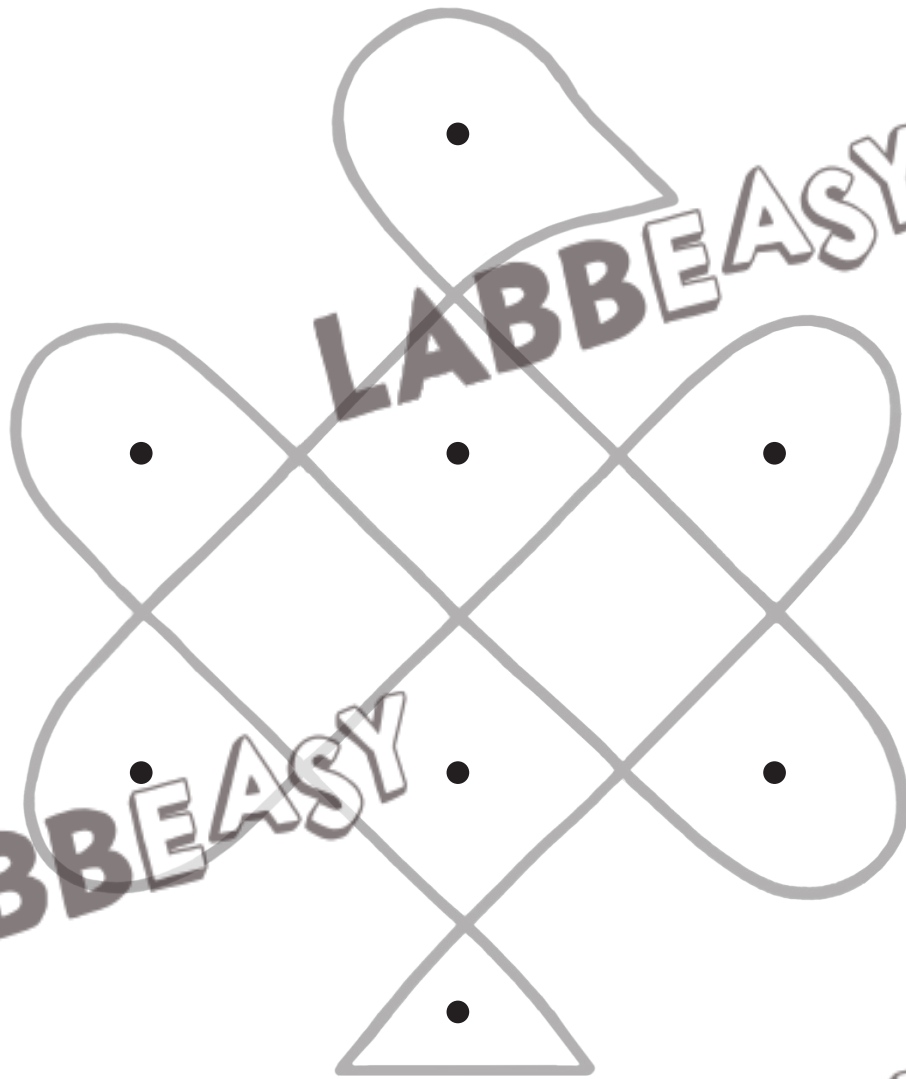


Once you can correctly draw a Lusona, you can draw it from memory or use this worksheet to draw around the dots and hang up your art work.

### TIP

It's best to always start drawing the line in the same place. You can color your Sona once finished, which looks especially nice.

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