

ZAST TEACHER TRAINING BOOKLET

SCIENCE –KINDERGARTEN 1



(Teacher-MadeMaterials+Montessori Materials Guide)

OVERALL GOALS

By the end of KG1, children should be able to:

- *Observe and talk about their surroundings*
 - *Identify living and non-living things*
 - *Understand basic plant and animal concepts*
 - *Recognize simple weather conditions*
 - *Develop curiosity and questioning skills*
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TEACHING APPROACH

Observe Explore $\rightarrow\rightarrow\rightarrow$ Discuss Explain

- *Start with real-life observation*
 - *Let children explore materials*
 - *Encourage discussion*
 - *Explain in simple language*
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MATERIAL TYPES

1. Montessori Materials

- *Classified cards (living/non-living, animals, plants)*
- *Puzzle maps / simple science puzzles*
- *Nature trays*

2. Teacher-Made Materials

- *Picture cards*
- *Real objects (leaves, stones, toys)*
- *Sorting trays*
- *Weather chart*
- *Experiment kits (basic)*



STAGE 1: LIVING & NON-LIVING



Objective

Understand the difference between living and non-living



Montessori Material Classified Cards

Teacher Guidance

- *Show pictures of living and non-living things*
- *Discuss simple differences (grow, move, need food)*
- *Let children sort cards independently*



Teacher-Made Material

Sorting Tray

How to Use

- *Provide mixed objects/pictures*
- *Child sorts into living and non-living groups*

Activities

- *Classroom object sorting*
 - *Picture grouping*
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Teacher Notes

- *Use real examples from classroom*
 - *Keep explanations simple*
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STAGE 2: PLANTS

Objective

Understand plant parts and needs

Montessori Material

Nature Tray

Teacher Guidance

- *Show real plant parts (leaf, stem) •*
 - Let children touch and observe*
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Teacher-Made Material

Plant Growing Jar

How to Use

- *Place seed in transparent jar •*
 - Observe daily changes*
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Activities

- *Water plants*

- *Draw plant parts* •
- Match parts to pictures*
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Teacher Notes

- *Encourage daily observation*
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STAGE 3: ANIMALS

Objective

Identify types of animals

Montessori Material

Animal Classified Cards

Teacher-Made Material

Animal Picture Cards

Activities

- *Domestic vs wild sorting* •
 - Animal sound matching* •
 - Movement imitation*
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Teacher Notes

- *Keep learning playful*
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STAGE 4: WEATHER

Objective

Recognize daily weather

 **Montessori Material**

Weather Cards

 **Teacher-Made Material**

Weather Chart

Activities

• *Daily weather discussion* •

Place correct symbol

 **Teacher Notes**

• *Make it a daily routine*



STAGE 5: HUMAN BODY

 **Objective**

Identify basic body parts

 **Montessori Material**

Body Puzzle

 **Teacher-Made Material**

Body Part Flashcards

Activities

• *Point and name* •

Action games

Teacher Notes

•Use movement-based teaching

STAGE 6: FIVE SENSES

Objective

Understand senses through experience

Teacher-Made Activities

*• Touch and guess •
Smell test • Sound
recognition*

Teacher Notes

•Use real objects for each sense

STAGE 7: SIMPLE EXPERIMENTS

Objective

Develop curiosity and thinking

Teacher-Made Material

Experiment Tray

Activities

*• Sink or float •
Ice melting •
Color mixing*

Teacher Notes

•Ask questions: What happened? Why?

CLASSROOM IMPLEMENTATION

Daily Flow

1. Introduction 2.

Demonstration 3.

Child Practice 4.

Discussion

Classroom Setup

• Materials on low shelves •

*Organized trays • Easy
access for children*

ASSESSMENT

*• Can sort correctly • Can
answer simple questions •
Shows curiosity • Participates
actively*

COMMON MISTAKES

*• Too much explanation •
No hands-on learning •
Ignoring child questions*

FINAL NOTE

*• Encourage exploration • Use real-life
materials • Make learning active and
engaging
Children learn science by observing, touching, and exploring.*