

Disclaimer: Activities with children must always be risk assessed, including for allergies or choking. Children must always have adequate supervision. Resources and materials must always be appropriate for children's age and stage of development.

Activity: Sorting and classifying natural materials

Develop early maths skills by sorting and classifying natural materials found outdoors.

Learning aims

- Look for similarities and differences in natural materials
- Use and develop mathematical language
- Problem solve and make decisions.



Resources

- A variety of natural materials such as leaves, sticks, stones, pinecones, and flowers
- Containers for sorting, such as bowls, hoops or chalk to draw circles on the ground
- Optional - labels or pictures representing different categories (e.g. shape, size, colour, type).

Activity outline

1. Arrange a variety of natural materials (stones, leaves, sticks, flowers) and some containers for sorting. Look at them together and identify similarities and differences in the individual materials
2. Decide on some categories together such as:
 - By Shape: Round stones, long sticks, flat leaves
 - By Size: Big stones, small stones, large leaves, tiny leaves
 - By Colour: Green leaves, brown sticks, white flowers
 - By Type: Stones, leaves, sticks, flowers
3. Encourage children to take turns placing their items into the appropriate categories
4. Invite the children to explore their outdoor environment to see if they can find anything else to add to the categories. As the children sort the objects, ask questions to reinforce their understanding such as, "Which basket should we put this small stick into?" or "Can you find a leaf that matches this one?"
5. Discuss the sorted materials, highlighting the differences and similarities. Ask questions such as, "How many big stones did we find?" or "Which category has the most items?" Offer plenty of praise and encouragement to build confidence and enthusiasm for maths
6. Be flexible and ready to adapt the activity based on the children's interests and engagement levels.

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Extension ideas:

- Encourage the children to re-sort the objects in a different way, such as creating patterns or grouping by another characteristic. What difference does this make to the sets?

NDNA products to support you with this activity:

- Top tips: [Outdoor Maths Opportunities](#)
- Online course: [Mini Maths Explorers - Outdoors Challenge](#).