

## Sorting and classifying with nature

Sorting and classifying items is often a natural interest of children and is also a great way of children discovering relationships and attributes of different items.

Try this simple sorting activity with natural resources to give children lots of practice and exploration to support their developing mathematical minds!

### Learning aims

- Develop noticing skills and notice detailed features of objects in the environment
- Comment and ask questions about the properties of different materials
- Develop prediction and problem-solving skills
- Use a range of mathematical and descriptive language
- Develop an understanding of mathematical concepts e.g. more/less.



### Resources

- Access to outdoors
- Containers for collecting natural materials
- A space or area for children to sort items into groups – this could be on sheets of paper or into separate containers.

## Activity Outline

- Ask the children to go into the garden or outdoor area and collect a range of natural items such as pine cones, twigs, leaves and stones
- Find a place where children can empty all of their items out in front of them and ask children if they can put what they have found into groups of things that are the same
- Engage children in meaningful conversation as they sort and classify, finding out their reasoning behind why they are grouping things together - perhaps by colour, shape, size or properties such as being smooth or pointy
- Comment and provide rich descriptive language as you problem-solve with the children - are there any items that don't fit into any category, why?
- Once children have sorted their items into groups, talk about what they notice about the groups - which has the most? Which has the least? How do they know? Perhaps they can visually predict which has more from experience or perhaps they think one group has more because the items in that groups are larger and take up more space. Don't correct children, encourage them to test out their theories by lining them up or counting them to see which group does actually have more
- Encourage children to compare their groups of items with other children's and comment on what they notice about their friend's collection

## Extending the activity

Provide a range of different shaped and sized containers and pose additional problems to solve such as: 'I wonder if we can fit all of the stones we have found into this egg cup?' or, 'if we line up all of the stones I wonder how far they would go?'

Note children's response to your challenge, listen to their conversations and discuss with them the reasoning behind their predictions. Don't forget to always let children carry out the task so they can prove or disprove their theory.

Let children create something with their found items. Do they include pattern, size and order into their creations?