outdoors: STEM

Body and soul

It may seem gruesome at first, but dissection teaches children in an unforgettable and meaningful way about the circle of life. By *Julie Mountain* and *Felicity Robinson*

natomy is the word we use to describe the structure and organisation of the features of living organisms,

whether animal or vegetable. While it is not strictly included in any UK early years curriculum, children do learn about 'my body' and we encourage them to learn the names of not just human body parts but also those of plants - flower, stem, leaf and so on. Exploring anatomy in more detail has many advantages for very young children, not least that we know that knowledge is power: research suggests people of any age who know how their bodies work are less anxious when they become injured, or need medical intervention and make better health



Tools: Magnifying tools are essential for everyday provision (in our opinion!) but come into their own when examining animals, bones and plant structures. Alongside magnifying glasses, invest in A4 plastic magnifiers, jewellers' loupes for very close-up work, and bug boxes with magnifying lids. Also, cameras or tablets for recording specimens.

in the moment

On a walk around the garden or the neighbourhood, look for birds and mammals and compare body parts. Use



small-world animals to compare and name body parts.

- In autumn and winter, seek leaf skeletons the soft tissue rots away before the veins do, leaving a ghostly impression of the leaf.
- If you come across dried-out animal carcasses, skulls or chrysalises, keep them. Store smaller items in airtight containers in the dark so you build a collection of interesting objects. In May and June, look out for dragonfly cocoons by rivers or ponds.

quick wins

An easy way to start is with buying whole fish, such as a mackerel (which has beautiful skin) from a local shop and dissecting it. This is most certainly an adult-led demonstration, but cutting up a fish to show children its insides will be visceral, and smelly, fun. If you have a local fishmonger, ask them to come in and

do this for you, starting off by encouraging

observations about the fish's skin, eyes, body parts and what it feels like. Once it has been opened up, children should be offered the opportunity to touch the flesh and skeleton; save the skeleton and clean it as above, so it can be examined again later.

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- Collect feathers. Let children play with them, sort them, feel them and create with them. Print a picture of a bird with its wings outstretched so that children see each feather has a specialised job. Snail shells are good too – try to find different shapes, sizes and colours.
- Use chunky chalk to draw around each child on the hard surfaces outdoors, then invite them to draw their features onto their faces and label their limbs.
- Turn the home corner into a doctor's or vet's surgery. Include a stethoscope, human/animal body charts and books, toy animals, 'realistic' dolls, safety goggles, plastic gloves and 'instruments'.

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planning ahead – burying and exhuming an animal

Inspired by Sue Humphries, the founding head of the Coombes School, who describes how she taught pre-schoolers and infants about the circle of life using roadkill (see right), I



started to collect dead animals myself, to bury with my early years and school groups.

- The ground rule is that the animal must not have visible injuries. This is not about upsetting children, it's about helping them deal with a situation they will encounter one day. Look for animals that have died naturally, such as frogs, beetles, birds and mice.
- If you aren't able to examine the animal immediately, double wrap it in plastic food bags and freeze it. Once it's defrosted, wear plastic gloves to handle the animal.
- Gather children in a quiet place and lay the animal out so it can be observed. Talk about how you found it and invite children to comment on what they can see.
- What kind of life did this animal have? Where did it live? Did it have a family? If you are a faith school or setting, you might also like to talk about what happens to an animal's (or human's) life force when it dies. Perhaps offer children the chance to express their thoughts about the animal before you bury it.
- Dig a hole at least 40cm deep (otherwise it might be exhumed by a fox) and wrap the animal in a natural fibre such as cotton. Place it in the hole, cover it with some metal or plastic mesh and then refill the hole; mark the spot.
- If you decide to unearth the animal, allow enough time to be sure all that is left is bones. This will be four months for a mouse; for a pigeon or hedgehog, allow a year.
- Clean the bones by placing them in warm water and biological washing liquid – this will remove dirt and germs. You might also like to soak them in bleach water for a short time.
- Once clean, children may handle the bones; remind them of the animal you buried, using photos if you took some, and discuss what's happened to the body since it was buried. Look at pictures of the animal's complete skeleton, and try to match up the jumble of bones you have with the image. The body has become food for tiny creatures and has rotted into the soil, adding nutrients and enabling the animals and bacteria in the soil to thrive. These tiny creatures are eaten by larger mammals and birds – the circle of life.
- → If you are interested in offering any of these ethical, safe and meaningful experiences in your setting, please get in touch with us via Nursery World; we are happy to share the more detailed practicalities.





resources

Sue Humphries' book The Coombes Approach (Continuum Books). A respectful and reflective process of examining and talking about an animal was central to helping children process the meaning of death. Sue says, 'It is sad the animal died, but its burial in the



garden gives us a chance to value it in death. [After burying and later exhuming the animal], profound questions have been raised by children that otherwise might never have been raised.'

- Jake's Bones (www.jakes-bones.com) is an excellent resource for adults and children alike.
- 'Good Practice: Anatomy The 'v' word', Nursery World, January 2022, in which Caroline Vollans makes a strong case for the importance of children knowing correct terminology for all parts of their bodies, with links to resources.

continuous provision

Ensure that children can access stories and non-fiction texts that talk about body parts and functions – My Amazing Body by Pat Thomas and the DK First Human Biology Encyclopaedia are



good starting points. Visual aids such as body-part jigsaw puzzles, posters and miniature human skeleton models will help children connect what they can feel in their bodies (e.g. sternum, tibia) with what is actually in there. This will help them recognise the parts of a bird or mammal.

Craft materials that you already have as part of continuous provision can be utilised for modelling body parts, making animal masks and drawing around parts of the body – or indeed a whole body on lengths of lining paper.
Paper straws and soft clay are great for making skeletons with.

Glossary: Body, skin, bones, anatomy, skeleton, feathers, fur, scales, shell, wings, fins, legs