

Carpentry: It's the process not the product



The words 'woodworking' in early childhood would have many educators cringing as they imagine children running wild with hammers and saws and having to deal with sore little fingers. The reality of a well-planned carpentry area is in fact quite the opposite. Just like any other area children can be encouraged to respect the carpentry area and learn how to use the tools carefully and appropriately.

Carpentry offers a rich learning experience for young children. It gives them opportunity to explore what they are interested in whilst encouraging numerous learning and development skills, many of which are encompassed in Te Whāriki.

Carpentry supports:

- Developing self-esteem and build confidence. By having the responsibility of using real tools and accomplishing a task they may have found challenging to begin with, and by being proud of their creations.
- Developing physically. Hand eye coordination, fine motor skills (holding nails, twisting in screws), gross motor skills (hammering, sawing) and muscle development are all improved as they learn to use the different tools correctly.
- Investigating science and mathematical concepts such as shapes, measuring, size, balance, length and force.
- Developing communication and language skills through working with others, sharing and co-operating. Learning the names of the different tools. Expressing their ideas, frustrations and successes.
- Expressing their creativity and engage their imagination by allowing them to design and build their own creations, come up with new ideas, problem solve and role play.

Carpentry area in your centre?

To get started you will need to invest in some good quality tools that are fit for the job. Inappropriate tools will make the tasks more difficult and lead to frustration so choosing the right size and type of tools is essential. Don't be tempted to use plastic play tools as these are not designed for real carpentry.

If introducing carpentry to younger children start them off with materials such as pumice, golf tees and a rubber mallet. Let them hone their skills with these before moving on to the real tools and harder wood. With practice comes necessary co-ordination and understanding to work safely. So long as you teach the children how to use the tools correctly and have clear safety rules you will find that they tend to have a much greater respect for real tools compared to their plastic counter parts.

Introducing children to carpentry:

When introducing children to carpentry start off with the basics. Show them how to hold a hammer in the middle of the handle rather than up close to the head and show them which end to hit with. Explain the importance of keeping their eyes on the spot they are hitting and how important it is not to distract other children who are woodworking. Pounding nails into a big block of wood or the end of a log is a great way to learn the initial skill of hammering because they don't have to worry about the wood moving about.

When introducing the saw start off by showing the children how sharp the teeth are. You can let them gently feel the teeth and imagine how much it would hurt if they cut themselves. Make a rule that when sawing, the piece of wood must be held firmly in the vice and the hand that is not holding the saw must stay behind their back well out of the way. Getting the cut started is the trickiest part. It is easiest to start off with a few little back strokes to create the initial groove. Explain that it is important to keep the saw in a straight line otherwise it can jam. To help with this you could draw a straight line on the piece of wood for them to follow. Once the cut is started they can use the traditional back and forward motion to cut through. It is important to have 1:1 supervision with children who are sawing and to maintain a wide "no go zone" so that other children don't get in the way of the end of the saw.

Tools

Hammers: 8oz ones are an ideal weight for children. Look for hammers with a short handle, good grip and full size hitting surface. Stubby hammers are also a good option for little hands.

Saws: Choose proper adult hand saws designed for cutting timber. Saws come in a range of different sizes. Ones with a blade length of around 350mm tend to be a good size for the children to manage.

Nails: Avoid getting nails that are too big or too small. If they are too big then the children won't have the power necessary to be able to hammer the nail into the wood and they will cause the timber to split. Nails that are too long will go right through the timber and into the work bench. On the flip side, nails that are too small will bend easily and be too fiddly for the children to hold safely. A variety of types and sizes creates extra challenges and keeps things interesting. A good tip to save little (and big) fingers from getting squashed is to use combs, clothes pegs or pliers to hold the nails at a safe distance.

Screws: Make sure they are suitable for woodworking (some screws are designed for metal and concrete rather than wood so check the packet for what they are designed for). Have a variety of lengths available that match your screw driver heads (Phillips and flatheads are most common).

Screwdrivers: A selection of different sized screwdrivers with both flat heads and cross (Phillips) heads. Again, stubby screwdrivers are great for little hands to manipulate and are readily available from hardware stores.

Hand drill: A couple of good metal hand drills are a great addition. Have a good stock of replacement drill bits in a variety of sizes as these can break easily. Use the drill to make small pilot holes in the wood to help get nails and screws started and to prevent the wood from splitting.

Other Hardware: To bring even more interest to the carpentry area you can introduce nuts, bolts, washers, screw hooks etc. You can then add spanners, wrenches and larger drill bits to the tool box for using with them. Assorted hardware also makes for great decoration.

Bench Vice: As children do not have enough strength to hold on to a piece of wood firmly enough to saw with the other hand a vice should always be used to hold the wood steady. Also consider getting some G clamps which can be moved about the table and are a good option when working with larger pieces of timber.

Safety gear: Child size safety glasses and ear muffs.

Why not also add: Measuring tapes or rulers, sandpaper in different grades, PVA glue, hot glue guns, plyers, builders level, builders aprons, hard hats, pencils and paper for them to plan out their designs. A large magnet can also be fun to pick up stray nails with.

Our toanga

Tell the children stories about Tāne Mahuta and Papatūānuku. Sharing the importance of our forests and looking after our land. Peter Gossage and written and illustrated some great books to help with the story telling.

You can extend carpentry into the real world by investigating the wood itself. Where does it come from? How does it grow? Look at different types of trees and the different parts of the tree. What are some things around us that are made of wood? Does wood float or sink? How about burning some wood or even planting a tree?

About the author:

Lisa McGlashan is a strong advocate for carpentry in the preschool years. Noticing that teachers often struggled to source a constant supply of suitable craft wood she founded Preschool Carpentry Wood Supplies – a small business that focuses on supplying wood, nails and hardware to early childhood centres throughout the North Island. Lisa also has a Facebook page dedicated to carpentry with young ones where she shares valuable ideas, enjoys being able to offer advice to educators and loves seeing pictures of your kids latest wood creations.

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Here are some basic essentials. Consider involving the children in the rule making process too.

Safety Rules: The essentials

- Have a maximum number of children working in the carpentry area at one time. This will be dictated by the size of your work bench and the required student/teacher ratio.
- Everyone in the carpentry area must wear shoes.
- Safety glasses to be worn at all times.
- Every tool has its own special purpose and should only be used for that purpose.
- No tools should be lifted above head height
- When sawing, timber must be held securely in a vice.
- Walk only when holding tools.
- All tools must stay in the carpentry area.