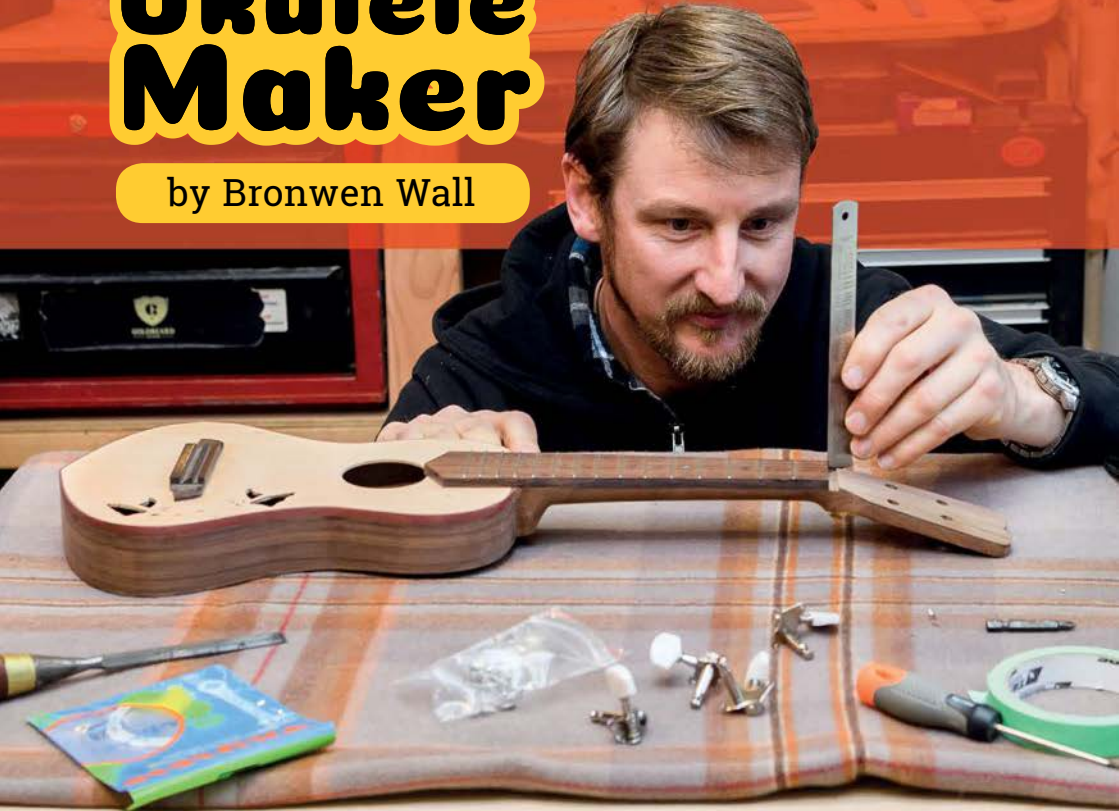


The Ukulele Maker

by Bronwen Wall



Dave Gilberd loves making things. When he was a boy, he spent a lot of time building toy planes and boats out of wood. He's been making things ever since. Now Dave works full-time building beautiful ukuleles and guitars.

When Dave was at high school, he learnt to play the ukulele. He enjoyed playing it so much that he decided he would like to make a ukulele himself. Dave went to see a luthier (a person who makes stringed instruments, such as violins, guitars, and ukuleles). The luthier taught Dave how to make a ukulele.

Dave's first ukulele didn't look very good, but it sounded OK. What's more, Dave really enjoyed making it, so he made another ... and another. Now, Dave is a luthier himself.



A ukulele and some of the guitars Dave has made

Making a ukulele

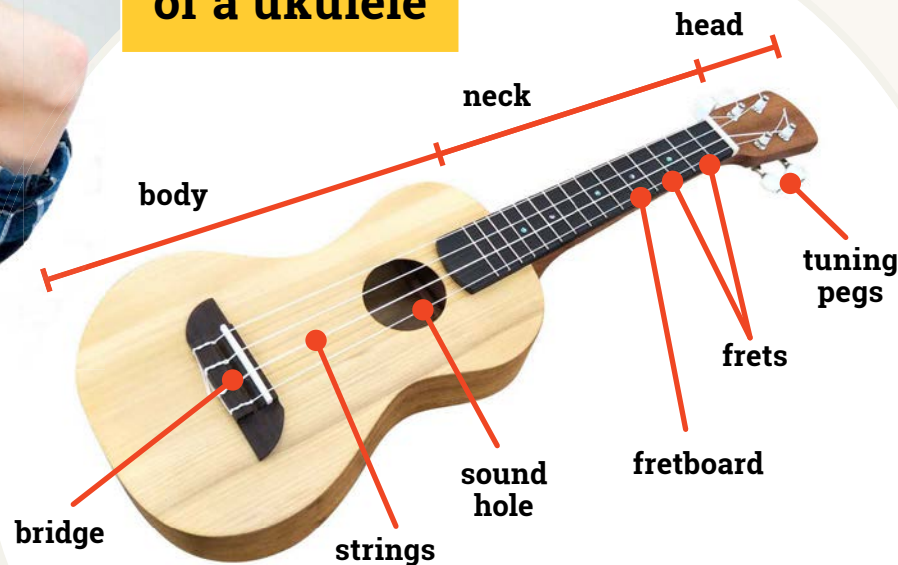
The first thing Dave does when he makes a ukulele is to draw a plan. The plan shows the size and shape of all the pieces he will need to make and how all the pieces will fit together.



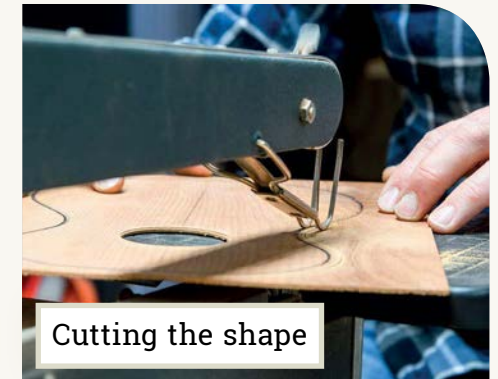
Then Dave chooses the wood for the ukulele. The wood needs to look and sound beautiful and be strong but flexible (easy to bend). Dave taps the wood to hear if it makes a nice sound.



The parts of a ukulele



Dave draws the shape of the ukulele body on one of the pieces of wood, then he cuts a hole in it. This is the "sound hole". It makes the sound of a ukulele louder. Then Dave cuts out the shape.



Next, Dave cuts out the other pieces of wood and sands each piece to make it smooth.

Then he takes the strips of wood for the sides of the ukulele and wets them. He uses a hot iron to bend the wet wood into the right shape.

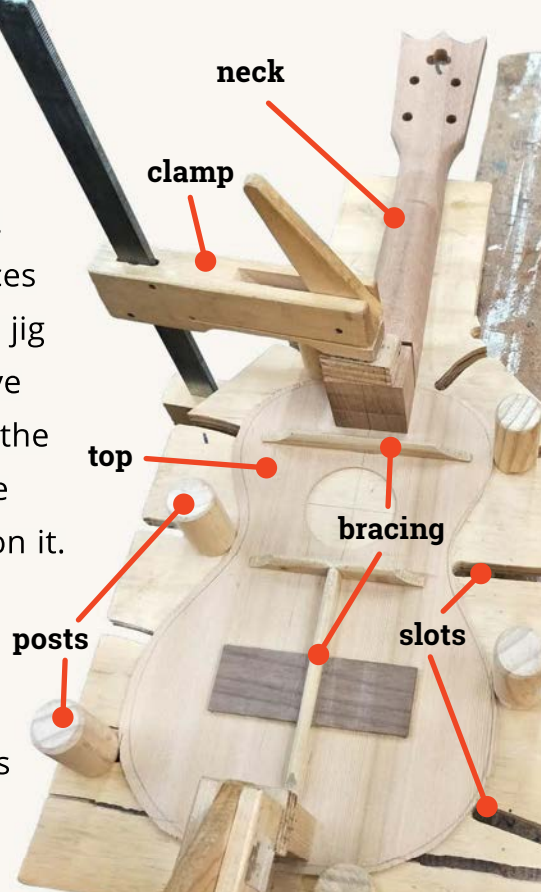


Now it's time to start putting the ukulele together. Carefully, Dave puts the pieces into a frame called a jig. The jig has little posts that help Dave make sure the pieces are in the right place and that keep the ukulele still while he works on it. The jig also has slots for ties to go through.

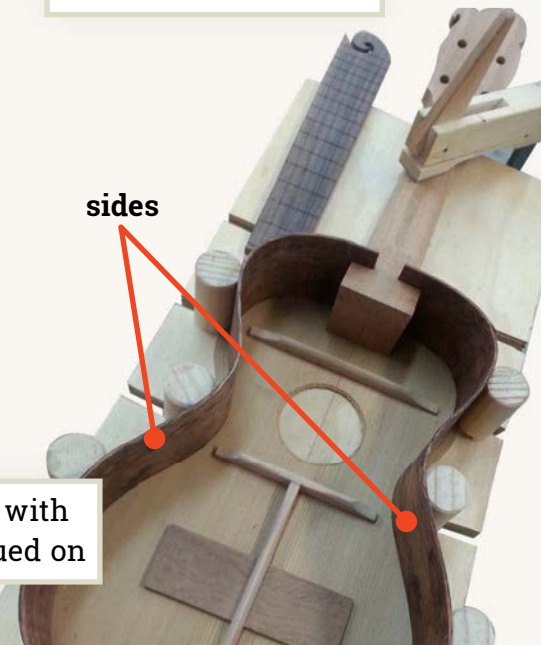
Dave adds each piece in a particular order. He puts the top down first. Then he glues bracing to the inside of the top. The bracing will make the ukulele stronger.

Next, Dave glues the neck to the top. He uses a clamp to hold the pieces in the right place. Then he waits for the glue to dry.

Next, he glues the sides in place, and ... waits for the glue to dry.



The ukulele in the jig



The ukulele with the sides glued on



Using the ties to hold the back in place

Then, he glues on the back, puts ties through the slots to hold it in place, and ... waits for the glue to dry.



Hammering in a fret

He uses a hammer to put the frets (small pieces of metal) into their slots along the fretboard. (The frets show where to press the strings to play each note.)



Gluing on the fretboard

Finally, Dave glues on the fretboard and the bridge, and ... waits for the glue to dry.



Gluing on the bridge

It takes about a week to make a ukulele. A lot of that time is spent waiting for glue to dry!

Once everything *is* dry, Dave sands the ukulele to smooth away any rough edges. Then he paints it with a clear oil to help keep it strong.

Then he screws the tuning pegs into place.



Sanding



Oiling



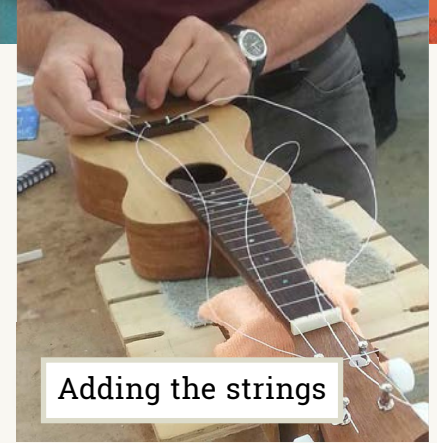
Adding tuning pegs



There's still something missing, though. Can you guess what it is?



It's the strings! Dave uses nylon strings on his ukulele. He threads each string through a hole in the bridge and ties a knot in one end to stop the string slipping right through. Then he ties each string to a tuning peg at the head of the ukulele. Now all Dave has to do is tune the ukulele so each string makes the right note. He twists each peg to pull the strings tight to change their sound.



Adding the strings



Tuning

Now the new ukulele is ready to play.



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The Ministry of Education and Lift Education would like to thank Dave Gilbert for his help with “The Ukulele Maker”.

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Published 2019 by the Ministry of Education,
PO Box 1666, Wellington 6140, New Zealand.
www.education.govt.nz

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Enquiries should be made to the publisher.

ISBN 978 1 77669 646 8 (online)

Publishing Services: Lift Education E Tū
Editor: David Chadwick
Designer: Simon Waterfield
Series Consultant: Kay Hancock
Consulting Editors: Hōne Apanui and Emeli Sione



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10



JUNIOR JOURNAL 58

Curriculum learning areas

English
The Arts – Music
Technology

Reading year level

Year 3

Keywords

Dave Gilbert, guitar, Hawai'i, instrument, jumping flea, luthier, making things, music, occupation, planning, process, stringed instrument, technology, ukulele