

**45 min**  
Science  
Workshop



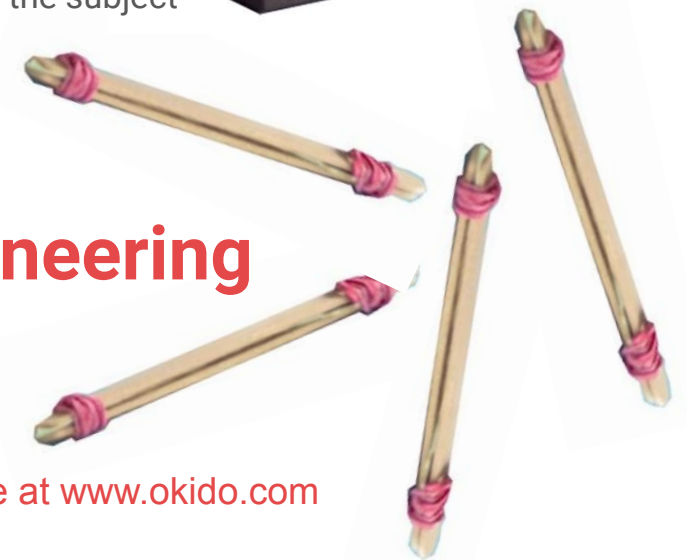
**Ages**  
**3-8**

# Learn-Through-Play Workshop

This OKIDO downloadable workshop is designed for families and can be easily delivered in the home by YOU. It is designed in collaboration with the British Science Association and follows learning to facilitate Early Years and KS1 development using easy-to-find objects from around the home.

This 45 minute learn-through-play workshop includes:

- Watch an episode of Messy goes to OKIDO together
- Discuss the science with easy-to-follow pointers around the subject
- Complete a make-and-do science activity
- Reinforce the learning with a fun, follow-up worksheet



Theme - **Technology and engineering**  
Subject - **Music**

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### Watch and learn together

Together with your child, watch this 10-minute episode of Messy goes to OKIDO - 'Messy Music'.

[Link to Messy Music episode](#)

Messy is good at making noise but wonders how it is that you make music. So off he goes to OKIDO to see if he can get some help.

When he arrives in OKIDO Messy, Zoe and Felix have to go to Orchestra to practice playing their instruments so that they can perform in the OKIDO Grand Concert.

In this episode, the gang learn about different types of **instruments** - a tool for producing a musical sound - and that different instruments make different sounds. Messy plays the drums, Zoe the ukulele and Felix the recorder. Musical sounds are made by creating different **sound waves** - which are the different sounds that air makes when travelling through air - through blowing and strumming on strings or banging on drums.

### Talk about the science

Right after watching, ask your child some questions about what they've seen:

- Where do they go to practice their musical instruments?
- What different instruments do Messy, Zoe and Felix each play?

Now talk to your child about what they've learned about music:

- How do you make the sound from a recorder?
- How do you make the sound from a ukulele or guitar?
- What happens when you blow harder into a recorder, does it get louder or quieter?

*If your child asks a question that you don't know the answer to - just investigate together to find out!*

Don't worry - all the information you need to know is explained in the episode : )



New words: Instrument, sound waves



### Now make some musical instruments

You will need a selection of junk but just pick and choose from what you have available.

- For the harmonica:
  - Lolly sticks, paper, elastic bands
- For the drum:
  - A pot or tin that is closed at one end, scissors, balloon, elastic band, tissue paper, stick
- For the guitar:
  - Box, elastic bands, pencils
- For the rainstick:
  - Tube, rice, lids or paper and tape to close

First, talk about all the different instruments that your child may already know. Try and describe them all together. When you start making, it's great to start with the harmonica and have your child try to secure the elastic bands at each end. This type of 'lashing' is very difficult for small children but is a great **life skill** that could help them build a raft to escape from a desert island in the future!!!

- There are clear instructions on the following page to help you make a small selection of instruments, so have a go and see how many you can make.

### Experimenting and data collecting

- Try to make each instrument.
- Can you think of any other instruments you could make to add to the band? See if your child has any great ideas... they will : )

For older children it's a great idea to start a design book. Let them think about and draw the sort of instruments they'd like to try to make and keep a record of them all in one place.

How about trying to rig your child up as a one man band?

- Something on the inside of the knees to act as symbols.
- Something under one foot to tap.
- Some takeaway lids on the side of the ribs and inner elbows to tap together.

Encourage your child to practice playing with control - both quietly and loudly.

**These instruments are pure junk! Talk to your child about how each element can be reused when they no longer want to play with them, or dismantled and put into the recycling.**

# Make your own musical instruments

Let's make a harmonica!



1 Place the piece of paper on top of one of the lolly sticks.



2 Put the second lolly stick on top of the paper, like a paper and lolly stick sandwich!



3 Put one of the elastic bands around one end, making sure it is in between the two sticks.



4 Wrap the elastic band around the sticks.



5 Do the same with the other elastic band on the other end.



6 Your harmonica is now ready to play. Put your lips in the middle and blow!

You can make musical instruments using all sorts of junk : )

Let's make a ukulele or guitar and a rainstick!

Make a guitar with a box using different elastic bands.

Make a rainstick with a tube filled with rice or dried beans. Decorate it with colourful stickers and tape.



Make some other instruments and create your own recycled orchestra!

Let's make a drum!

Drum stick



1 Roll some tissue paper around a chopstick



2 Fix it with an elastic band

Drum



1 Cut a balloon like this



2 Cover a jar with the balloon



3 Fix it with an elastic band

Why not get a family band together!

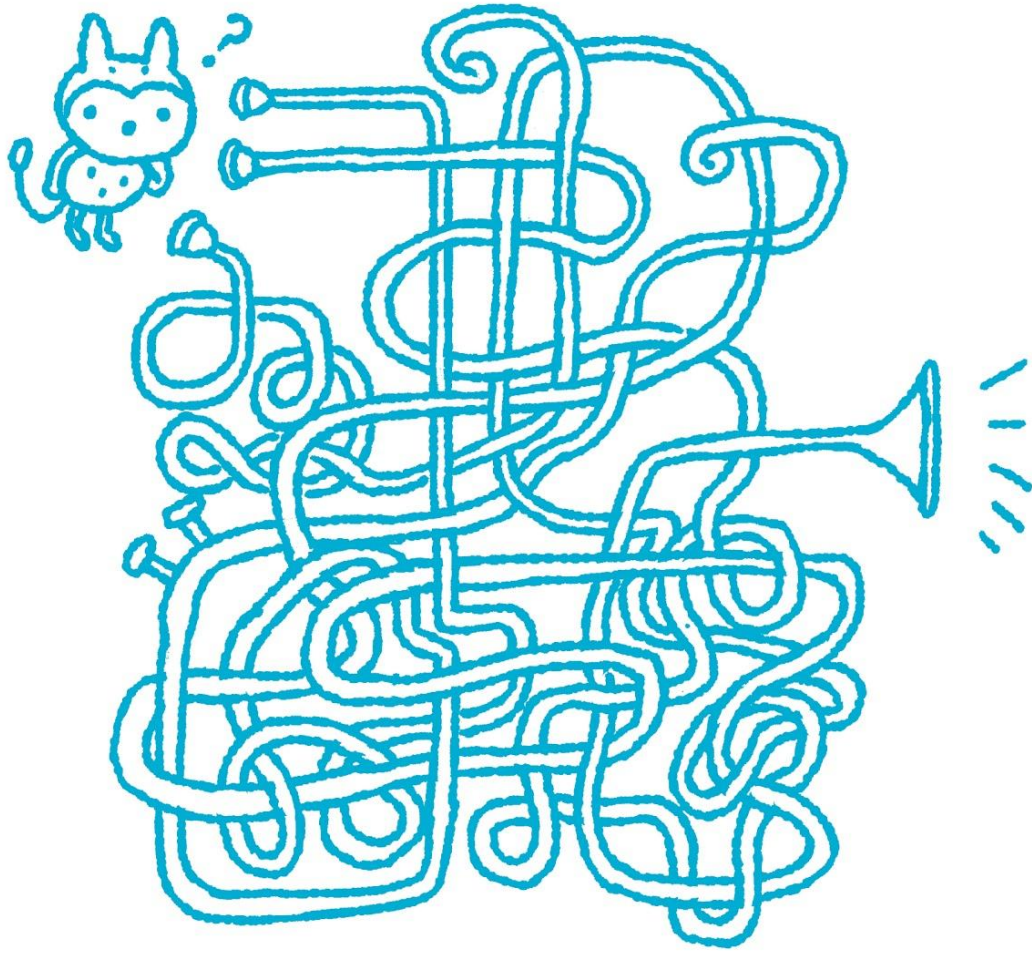


When you hit a drum, the drum vibrates. This vibration travels to your ears and makes the sound. The bigger the vibration, the louder the sound is!



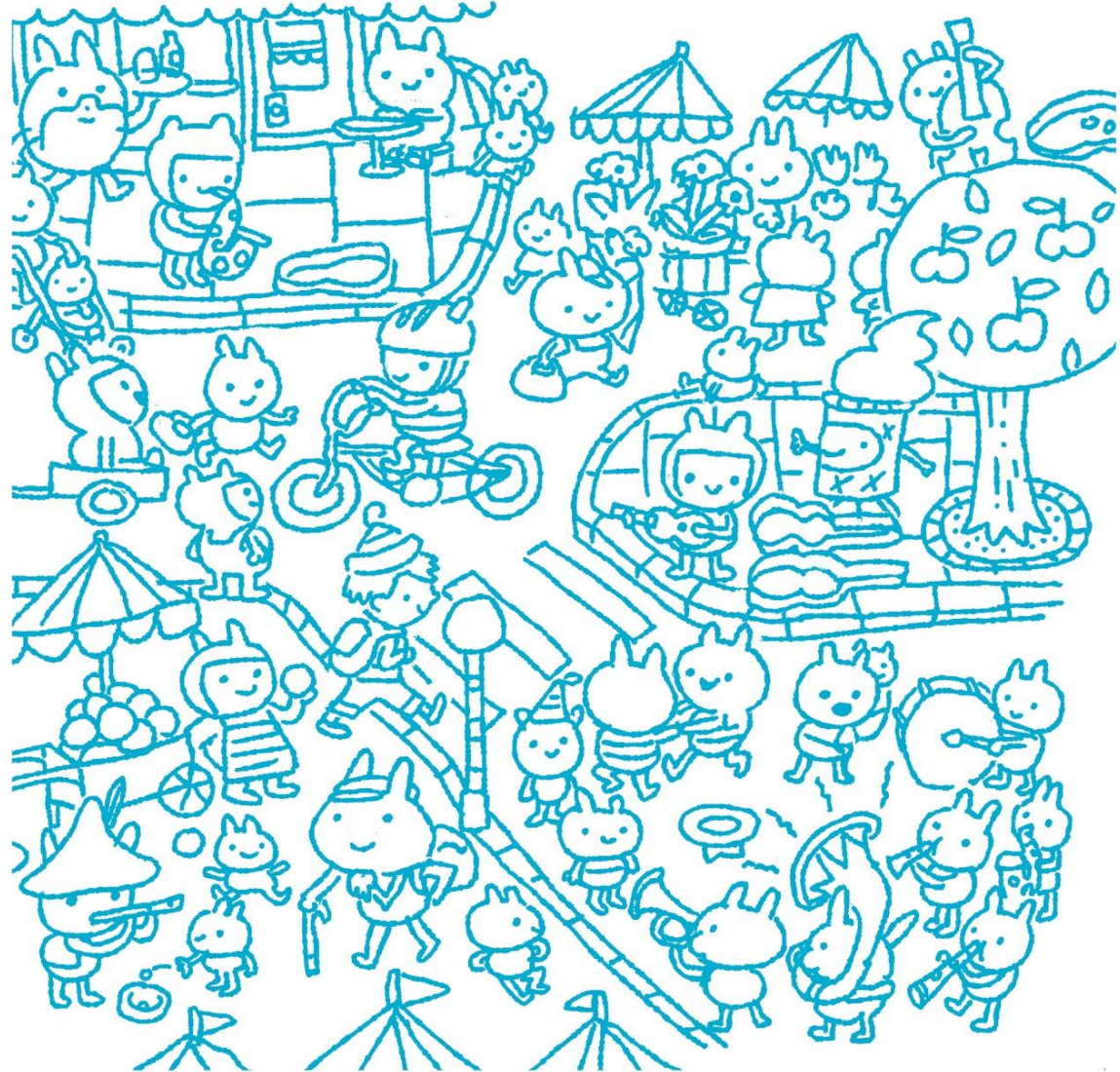
### Trumpet maze!

Which mouthpiece should Messy blow into to make a sound with this complicated trumpet?



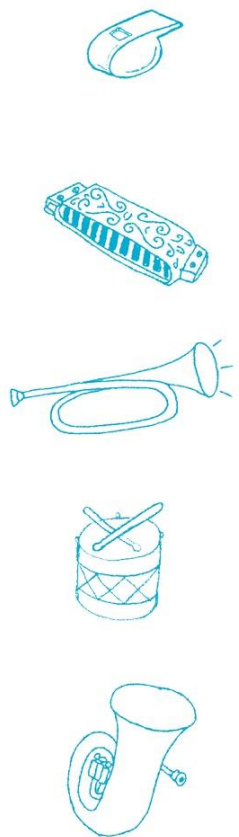
### Spot the buskers!

How many musicians are playing in Okido market today?



### The shape of sound waves...

Trace the sound waves coming from the following instruments.



### Missing notes!

Can you draw back the missing notes from this xylophone?  
Clue: they fit in order of size.

