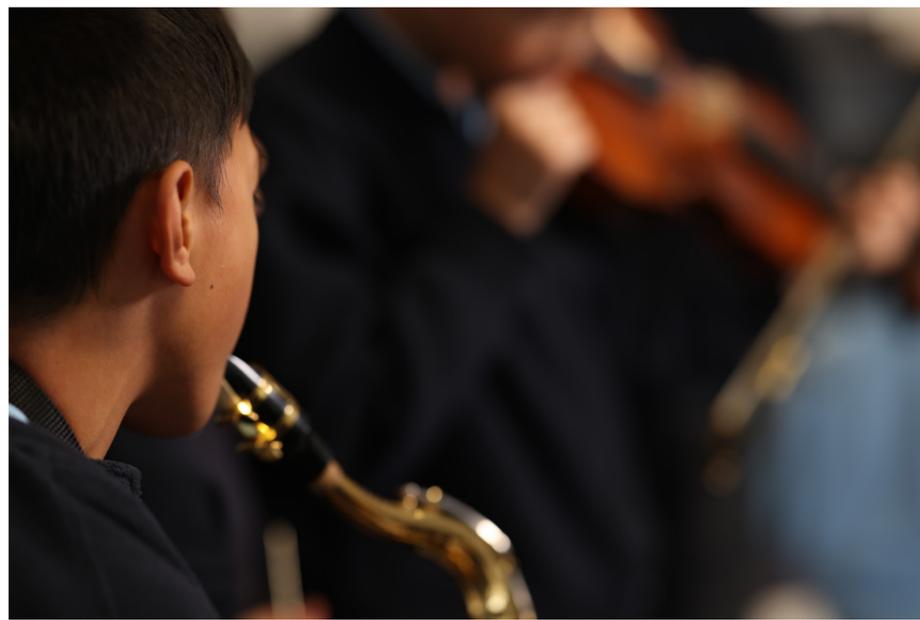
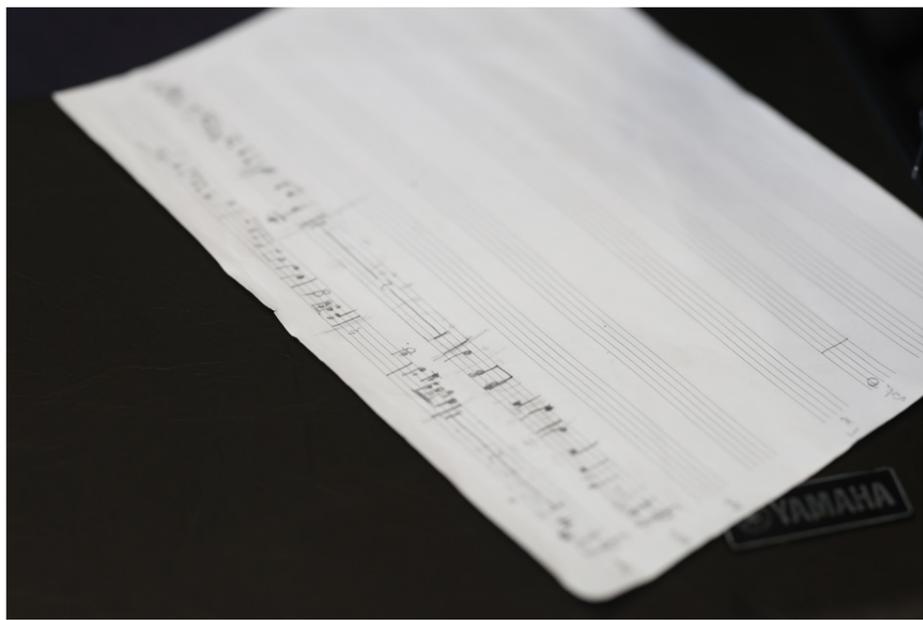


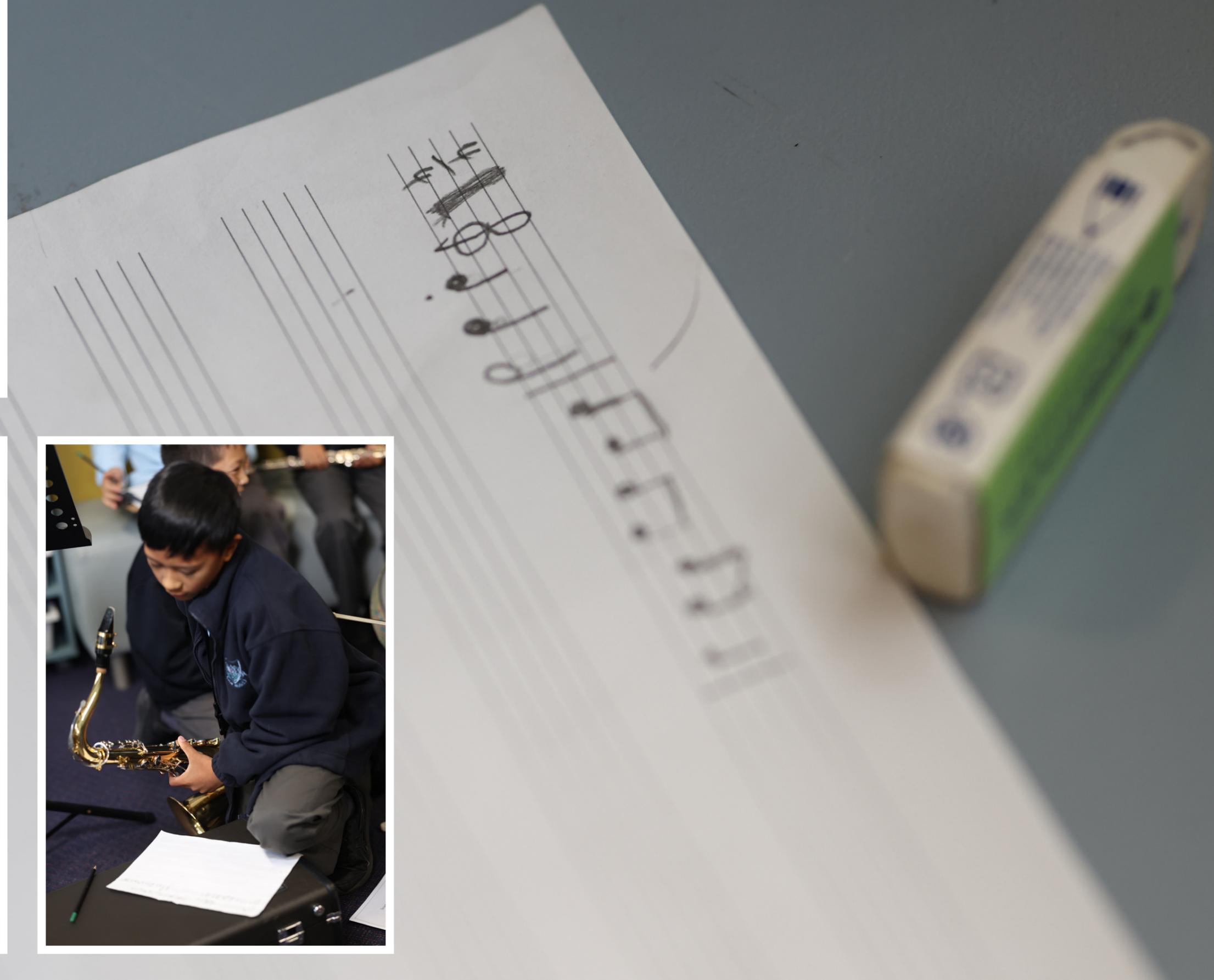
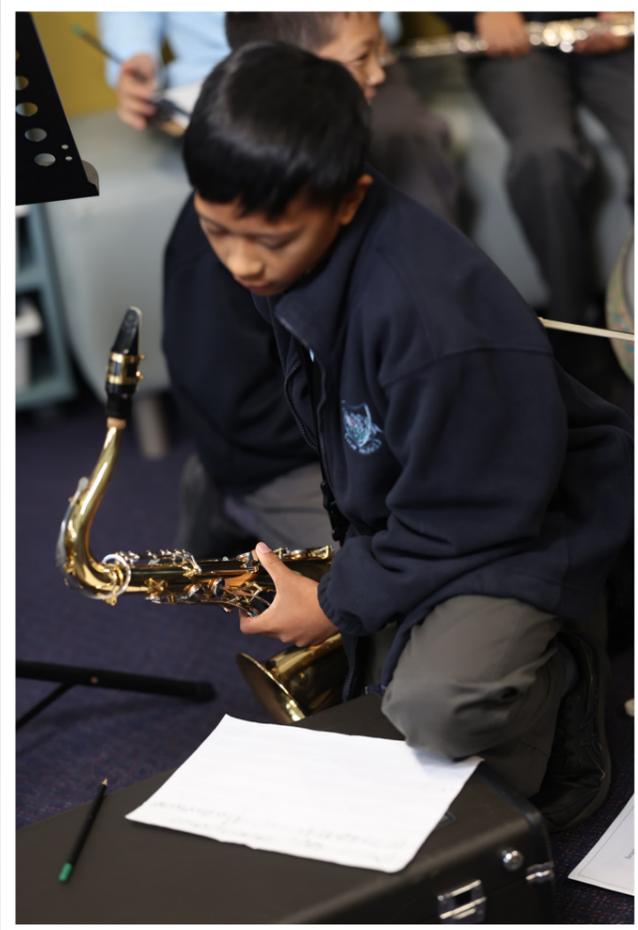
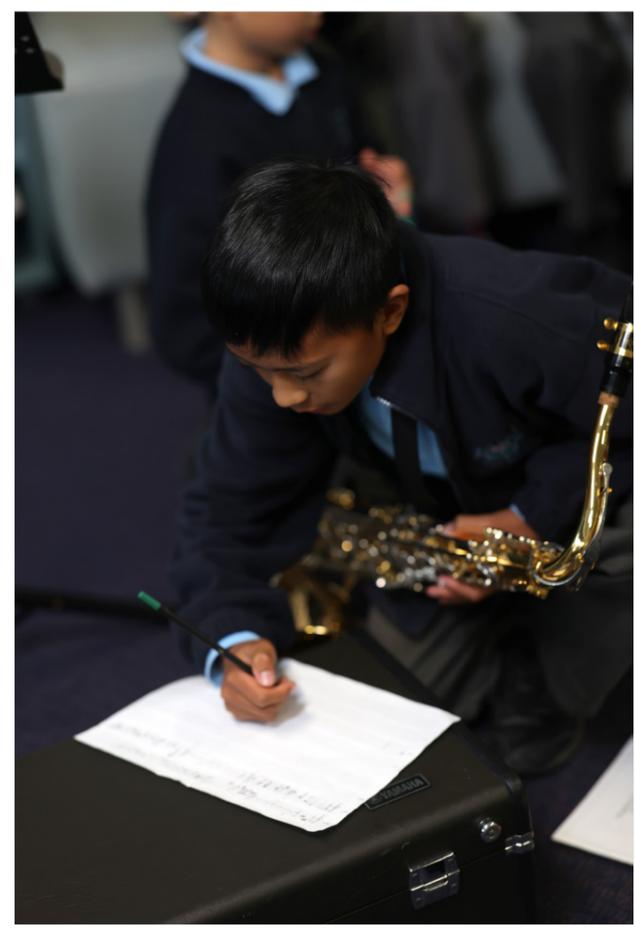


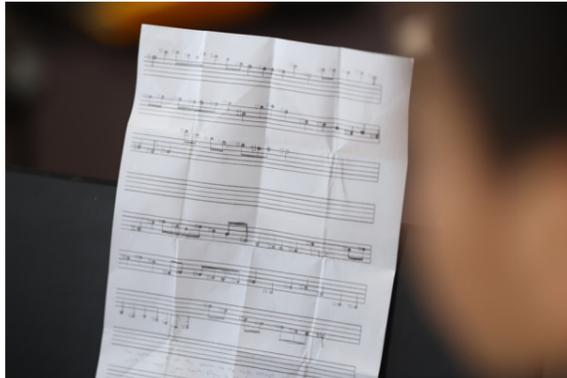
YEAR FIVE  
**OPPORTUNITY CLASS**  
WAITARA PUBLIC SCHOOL







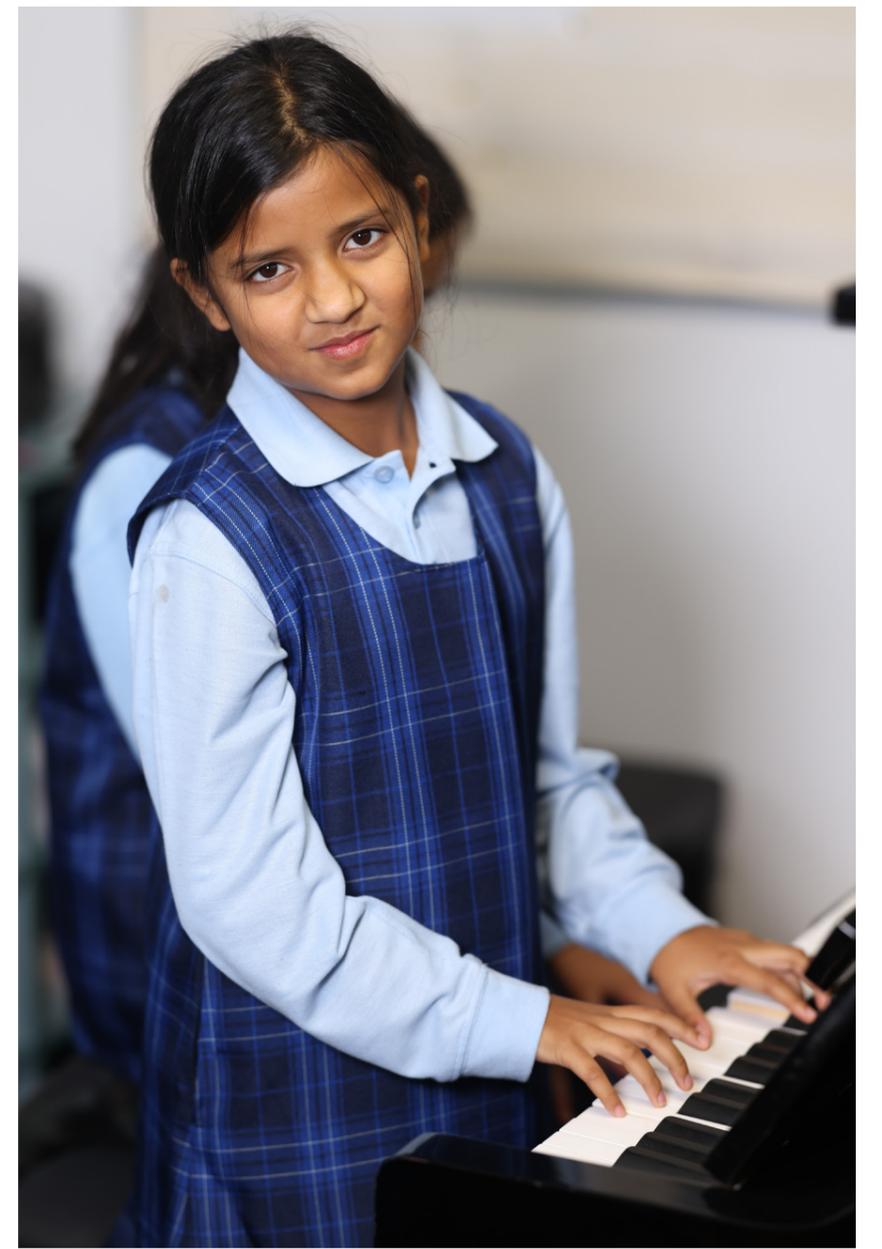


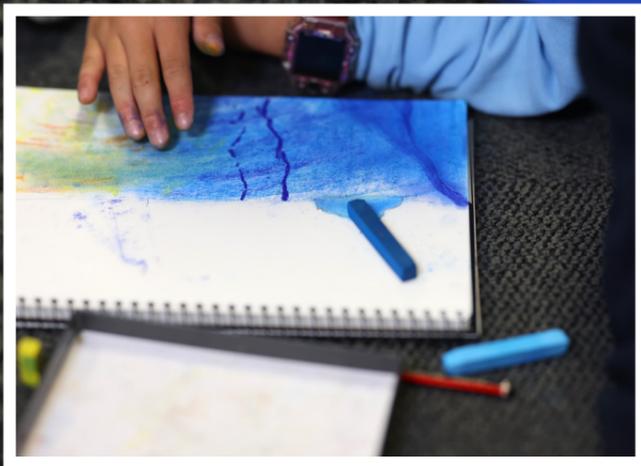
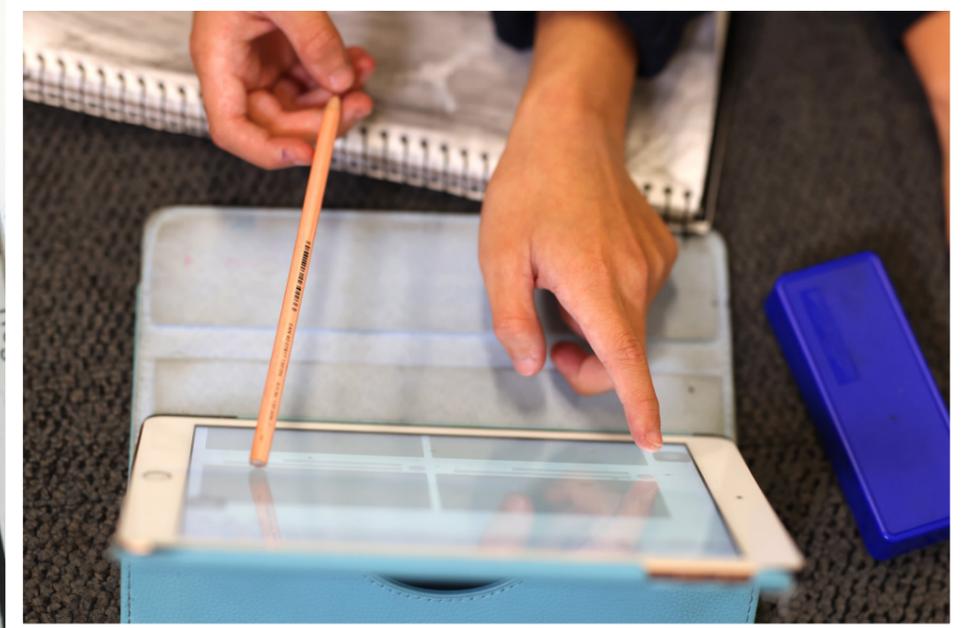


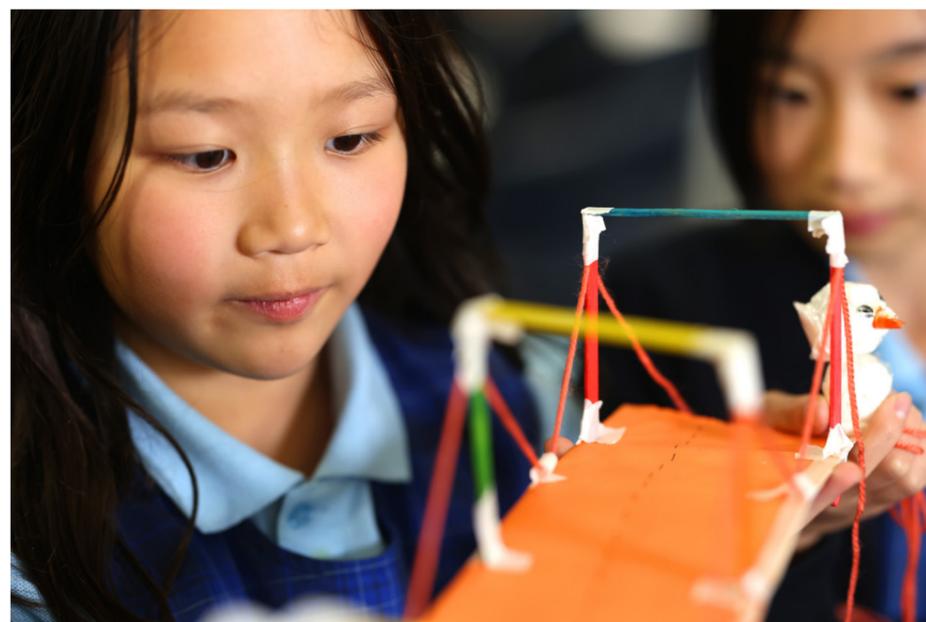
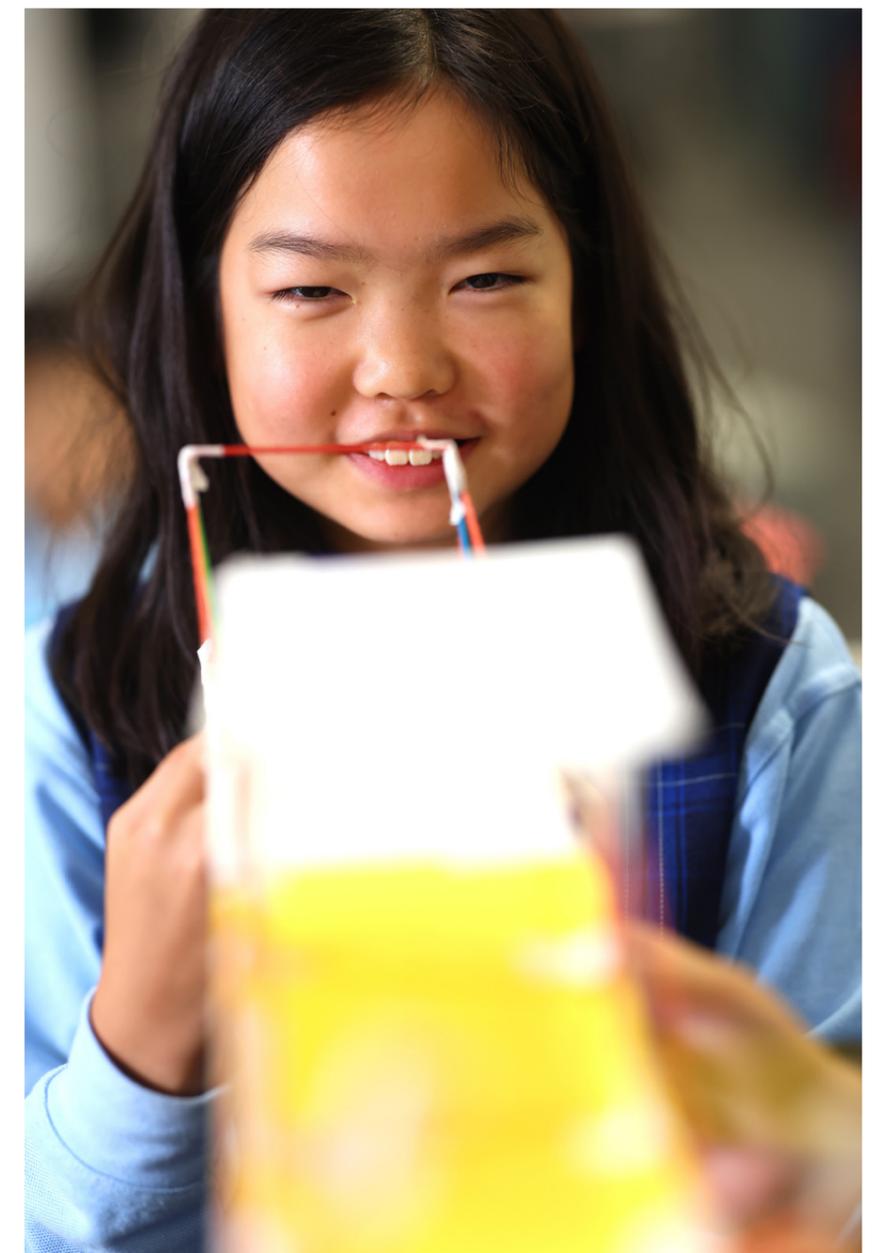


**COMPOSING MUSIC  
IN STANDARD  
NOTATION  
INSPIRED BY THE  
PICTURES ON THE  
LEFT**









**WE RESEARCHED  
BRIDGE DESIGN  
& ENGINEERING  
& BUILT A MODEL  
BRIDGE**







**YEAR 6 OC STUDENTS  
USING THE TRUNDLE  
WHEEL, A MEASURING  
DEVICE USED FOR  
MEASURING LONG  
DISTANCES OR DISTANCES  
THAT ARE NOT IN A  
STRAIGHT LINE.**



## FEEDING THE GOLD FISH. NOT TOO MUCH!



**UP2 Sand Timers**

Kali has a 3-minute sand timer. If all the sand is at the bottom and she flips the timer over, the sand runs through to the other side at a steady rate and takes exactly 3 minutes to finish.

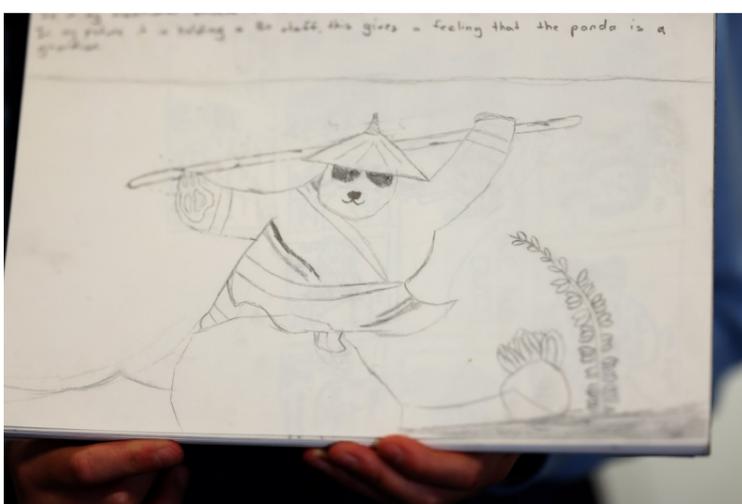
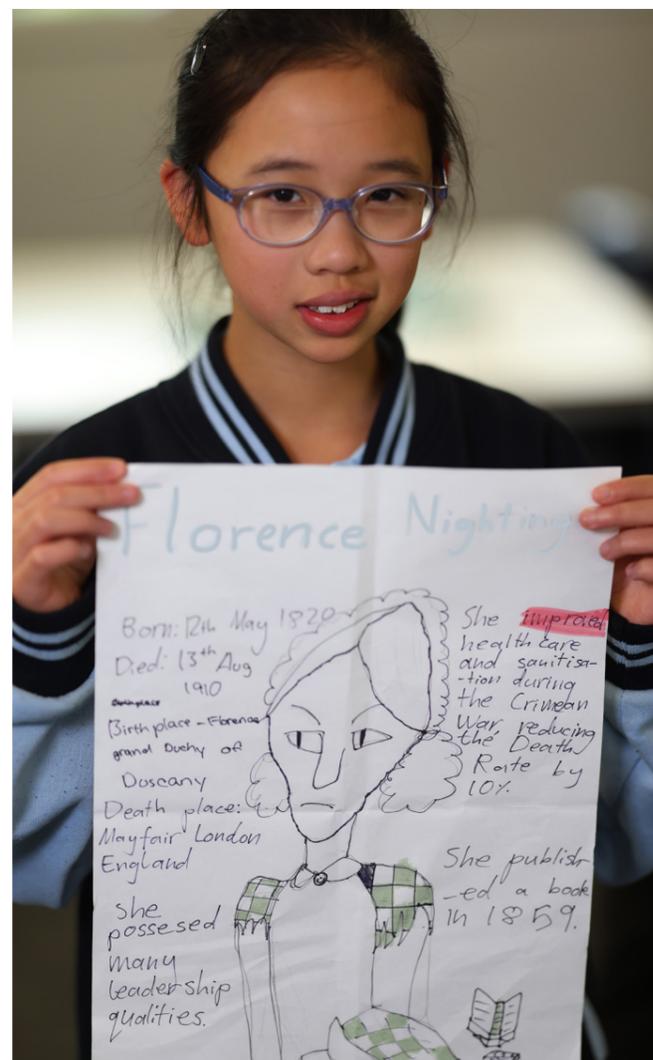
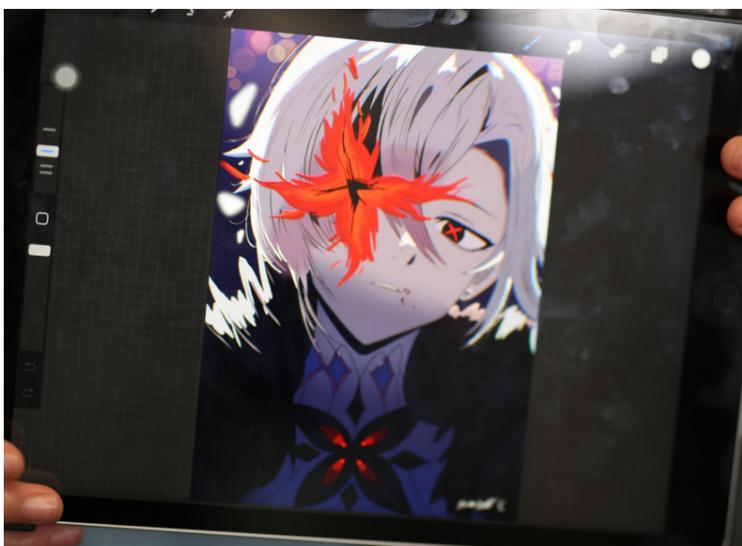
Kali also has a 5-minute sand timer.

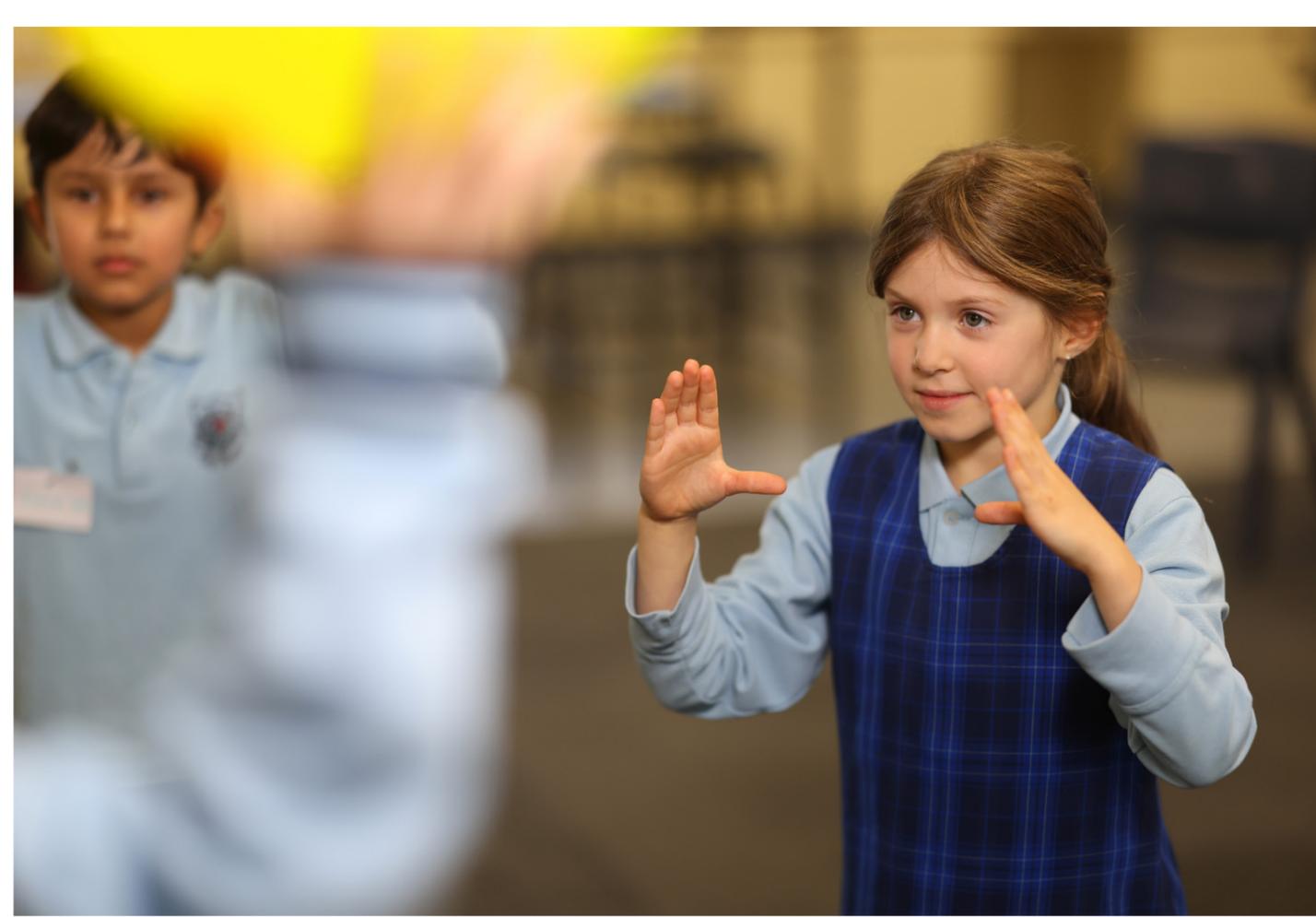
Kali likes to measure certain lengths of time with these sand timers. She starts with the sand at the bottom in both timers and flips one or both timers. Then, the only times she can flip a timer are when it, or the other timer, has finished. She can stop the time measurement only when a timer is finished.

Kali uses a system of arrows to show when the sand timers are flipped and what time is measured. The beginning of each arrow indicates the time at which its timer is flipped. For example, the following diagram shows how she could measure exactly 8 minutes by using the 5-minute timer first followed by the 3-minute timer.

Here is how she could measure exactly 2 minutes:

**a** Show how Kali can use her two timers to measure exactly 22 minutes.  
**b** Show how Kali can use her two timers to measure exactly 3 minutes. In total, how long will this process take?  
**c** Can Kali measure any (positive) whole number of minutes using her two timers? Explain why or why not.  
Sometimes the time taken to measure a certain time period is the same as that time period. Sometimes extra time is used to measure the time period.  
**d** Can Kali measure 7 minutes without taking extra time? Explain why or why not.





**PEER SUPPORT WITH  
STAGE 2.**