

# Medbury School STEAM/Literacy Inquiry



## Introduction

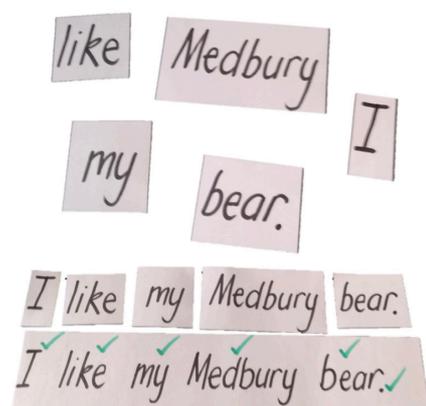
### Engaging Young Writers Through STEAM, Science, Technology, Engineering, Art and Mathematical Experiences

Recognising that starting school is a special time for their boys, Medbury School presents New Entrants with a cuddly toy, Medbury Bear.

Understanding the connection boys have between



Medbury and their bear, Teacher, Dahl Robertson set about implementing a STEAM initiative involving the Medbury Bear that went on to be integrated across the Literacy Programme.



^ A jumbled up sentence



^ The clay bears are unique and special to each boy

## Faces sparkle with enthusiasm

**Motivated by seeing young boys' faces sparkle with enthusiasm for school, a STEAM, Literacy Programme was implemented into a Year 1 class at Medbury School.**

Intent at first on developing the boys fine motor skills, an Arts plan was devised - drawing and sculpting a Medbury Bear. Support and practise led to each boy making their own polymer clay Medbury Bear.

Baked and hardened, the polymer clay bears ventured across the road to the College of Engineering, School of Mechanical Engineering at the University of Canterbury. All lined up in a Print Lab; the bears were scanned. With their own STL file, the bears returned to the classroom. Photos and video footage of the process were shared with the boys.

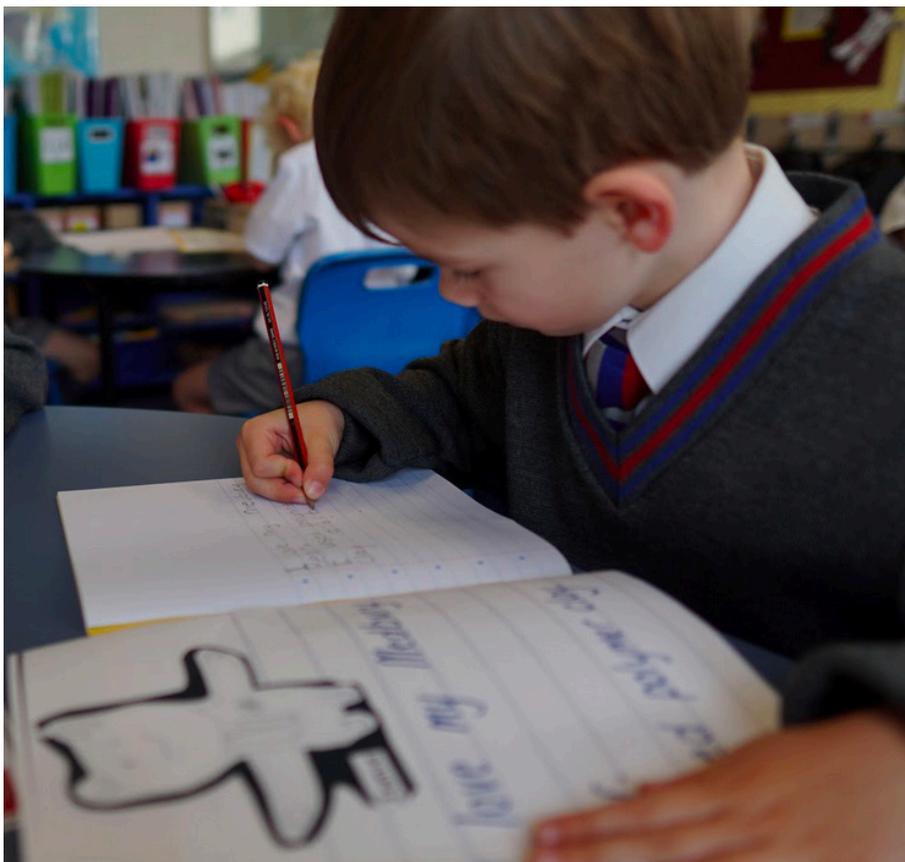
**In the classroom the bears inspired writing.** The jumbled up sentence activity requires the boys to construct a meaningful sentence from the five words on the board.

Working through several jumbled up sentences, the boys realised success when they suggested a word that had a capital letter as the first word in the sentence.

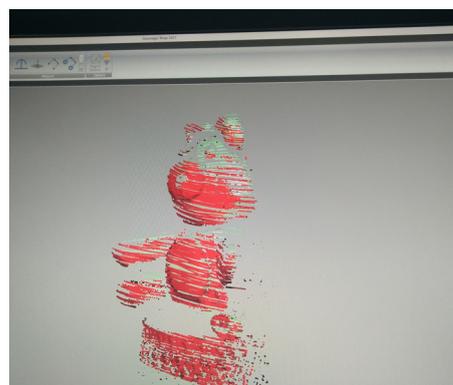
With the words relating to something that was special to the boys, they remained engaged and eager to unjumble the sentences.

Knowing the importance of teaching 'Concepts About Print' established by Marie Clay, jumbled up sentences are a good activity for building the boys' sentence structure knowledge.

The clear objective and the playfulness of the activity helps the boys to remain on task. The progression through to writing a sentence by themselves was seamless.



^ A Kreon Scanner was used for scanning the polymer clay bears.



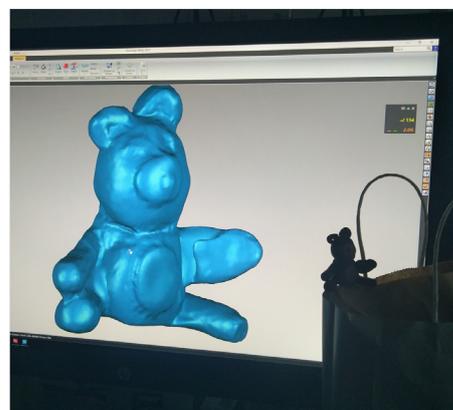
^ A scanned bear starts to appear on screen.

## Growing in confidence

**As their confidence grew, the boys were ready to write their own sentences.**

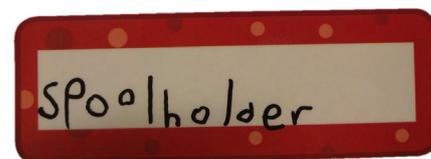
A well practised Guided Writing approach assists the boys. From the book "I've Got Something to Say" by Gail Loane (2010),

Loane encourages teachers to give writers access to the writing model. Circulated, scaled down photocopies allow the boys to view the model with ease and serve as a guide as the boys take to writing.

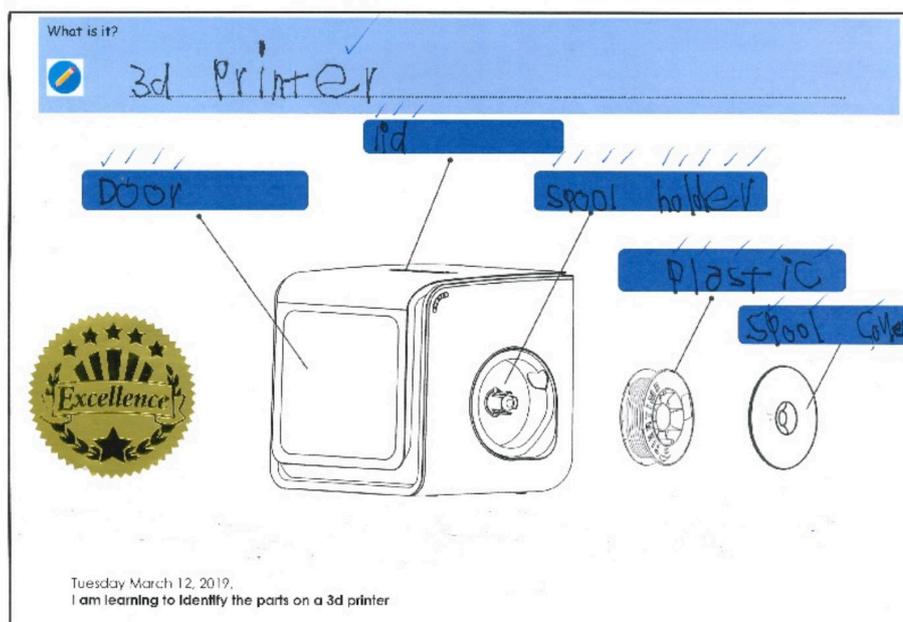


^ The images are converted into STL files

< The boys identify and label the parts of the 3D Printer. Using their best handwriting skills the boys work to implement their phonological awareness to create the labels.



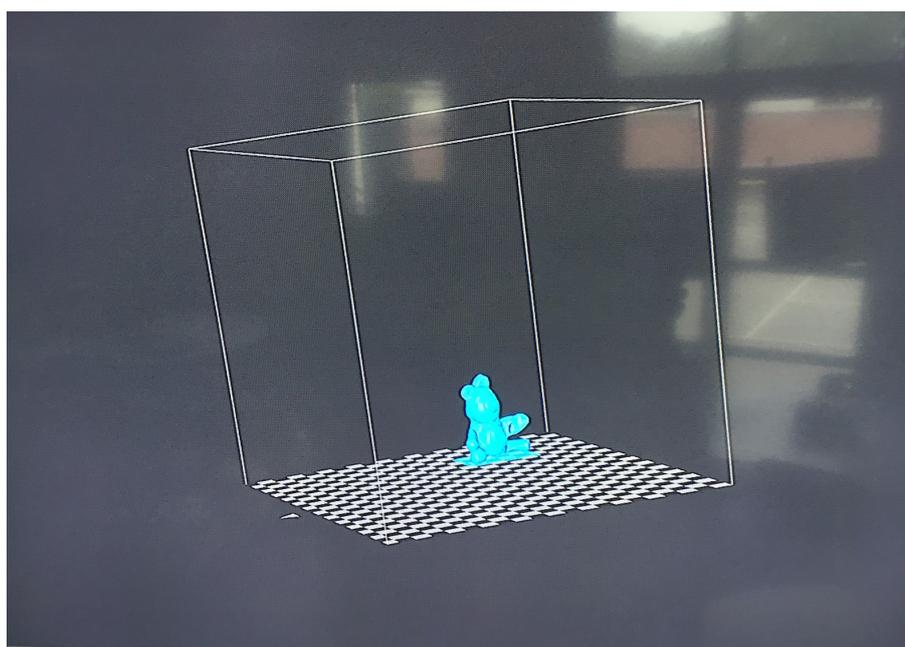
^ Created by boys who were just 3 weeks into starting school. Labelling provides the boys with a purpose beyond their regular handwriting book. Labelling activities are a manageable sized task for young writers.



- ^ Creating a worksheet supports the boys specialised vocabulary and builds their confidence with making marks on a page.



- ^ New to school, the few boys that were reluctant to say goodbye to their parent in the morning became quick to settle and eager to see what the printer is up to.



- ^ Projecting files onto the class television screen prompts discussions and supports the boys with their oral language development.

### The Literacy Coverage

- Imaginative writing - the boys published an adventure involving their bears.
- Descriptive writing - what does your bear look like? An opportunity to expose the boys to adjectives relevant and unique to their bear.
- Procedural writing - this involved the boys writing about the 3D printing process. They went on to edit their writing with the help of a buddy check to ensure that they had correctly sequenced the process.
- Map drawing and labelling of our school - this activity was to ensure the bears knew their way around our school. The boys explored maps that helped them to build their understanding of a map layout - specifically the concept "a bird's eye view".
- Name labels for each bear.
- Labelling the 3D printer.
- Labelling the body parts of their bears.
- The boys have access to their published writing and read their published stories about their bears.
- Reading - self-published writing on offer in the boys' class library allows them to enjoy their writing and the writing of others.
- The boys took it upon themselves to bring in their own picture books about bears



## We are yet to...

Write letters to our bears as they prepare to leave our classroom and move in with the boys and their families.

Some things for the boys to consider will be; is there a pet that their bear needs to know about or toy teddy waiting at home to be their bear's friend?

### References

Clay, M. 2017. Concepts About Print, Second Edition, Heinemann Educational Books, United States.

Loane, G. 2010. I've Got Something To Say, Aries Publishing Limited, New Zealand.

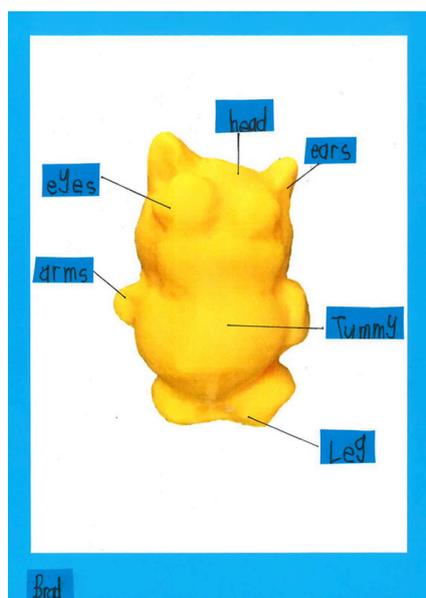
## Leveraging enthusiasm for success

The success of the programme came from leveraging the enthusiasm the boys have for their own cuddly Medbury Bear.

It was through an Art and Technology initiative, that a playful and developmentally appropriate Literacy Programme was crafted.



^ Surprisingly, the boys enjoy sharing their ongoing learning with their bear, "Can my bear sit with me when I read".



^ Labelling our printed bears body parts. By 5 year olds, 11 weeks into starting school.



^ Name labels for our bears. Young writers benefit from endless opportunities to write their own name.

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