

Story: [Ten Terrible Dinosaurs](#)

Author: Paul Stickland

Illustrator: Paul Stickland

Teacher: [Carla Stanley](#)

Setting of the class/school: An independent Christian college (pre-school to Year 12) in Queensland, Australia

Age group: 4-5 years old

Number of children in the class: 24

Learning intention: To help children understand that when counting backwards, they are diminishing the value, or total amount – not just saying number names in a rote-learned order.

Key mathematical vocabularies: less, away, total, how many, altogether, backwards, counting.

Resources needed: A copy of the book, enVisionMath Learning Bridge (an animation programme), sticky dinosaur manipulatives, laminated Tens-Frames, iPads/laptops, worksheet, and Unifix cubes

Synopsis by the publisher

This lively counting book is based on the characters from *Dinosaur Roar!*, a picture book that is now recognised as a modern classic. The rhyming text encourages children to join in, helping them to learn their numbers as they count down from 10 to 1, ending with a wonderful loud ROAR!

Starter / Teaching input (10 mins):

I started the lesson by reading *Ten Terrible Dinosaurs* to the children. We paused reading on each page to point to and count each dinosaur illustrated (reinforcing one-to-one correspondence). Key questioning at this stage were: “What is happening to the dinosaurs?” and “What is different on this page to the last?”. Children’s responses noted: “They are going away”, “There are only [8] now”, “There are less”, etc. At the end of the story, we had a simple discussion reiterated the questions and answers discussed throughout reading.

I then led the class in some whole-brain style teaching by having them ‘turn their mirrors on’ (repeat after me). The vocabulary/phrase called and repeated was as follows: “When we count forwards in one, we are adding one extra each time, and when we count backwards in one, we are taking one away each time”. We then moved to engage with an animation programme (enVisionMath Visual Learning Bridge) on the Smart Board. This programme is based around counting backwards, and was used as an additional way to assist children in understanding that counting backwards decreases a value, though images of people, toys and so on.

Main activity (25 mins):

The children were subsequently directed to work in mixed-ability groups at the following four stations. Each child visited each station for approximately 5 minutes, rotating to each in turn:

1. Acting out the story with dinosaur toys – *Teacher-led* (see Figure 1)
Using the illustrations on each page, children acted out the movements of each dinosaur – counting back from ten each time to ensure they had the correct amount of toys represented.
2. Sticky dinosaurs in Ten Frames - *Teacher aide-led* (see Figure 2)
Children picked up numeral cards at random and represented this value in a Tens Frame. Key vocabulary required: more, less, take away, how many?
3. Counting laptop game – *Individual activity* (see Figure 3)
Children worked individually to complete the counting game on laptop (number recognition, counting forwards and backwards).
4. Worksheet - *Partner activity*
Children worked with a partner to complete an A3 laminated worksheet which helped them to consolidate their understanding of a decrease in value when counting backwards.

Plenary (5 mins):

To review what the children have learned, I asked them to come back to the mat with their Maths Toolkits. At this point, I asked the children to count forwards from 0-10 using Unifix cubes to show each value as it was counted. I then asked the children to count backwards from 10-0, again showing each value using Unifix cubes.



Reflection:

Whilst I am very happy with this lesson and the outcomes and understanding it produced: if I were to deliver the lesson again, there are a few things I would change. Firstly, I would incorporate the acting out of the story (using toys) into the initial reading time. I feel that this would assist in engagement and understanding of the concept at an even earlier stage in the lesson. Secondly, whilst working in rotational groups, I would facilitate the Tens Frames group and pass the Re-Tell group on to my Teacher Aide. The reasoning for this is simply fluidity in the use of teaching terms. As it is me who has been teaching how to use and read Tens Frames in the lead up to this lesson, I feel that students may have been able to investigate further had I taught this group as I would have used language that they had been exposed to prior and been able to reflect on past lessons to assist understanding and connections.

Figures:



Figure 1: Acting out story with dinosaur toys



Figure 2: Dinosaur Ten Frames

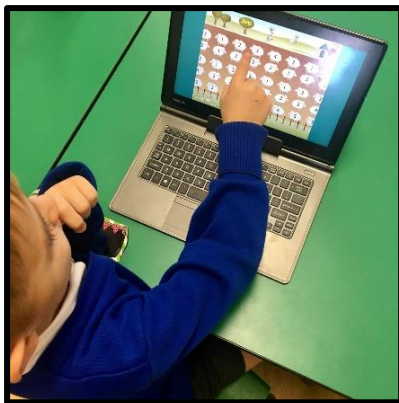


Figure 3: Digital sheep counting game (0-10 forwards and backwards)