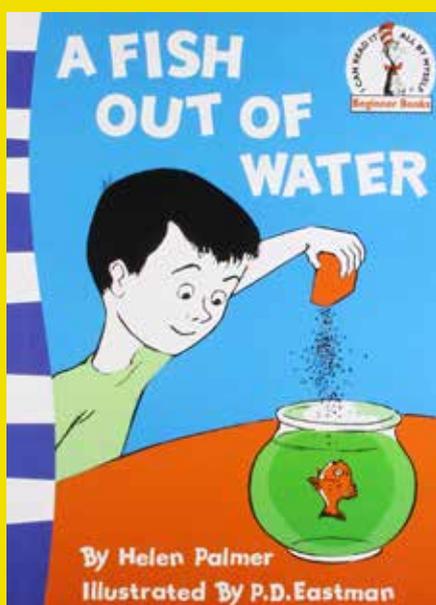


INVESTIGATIONS

James Russo, Monash University

CHILDREN'S LITERATURE INSPIRED INVESTIGATION: FISH OUT OF WATER

Read *Fish out of Water*, by Helen Palmer, illustrated by P.D. Eastman (Dr Seuss publishing) and tackle the investigation (Year 3 and up).



CURRICULUM LINKS

Patterns and algebra

Explore and describe number patterns resulting from multiplication, in this case repeated doubling.

Using units of measurement

Measuring and comparing objects using metric units of length and tell time to the minute and investigate relationships between units of time.

Number and place value

Represent/explore numbers to 10,000 and beyond.

HOW BIG IS THE FISH?

At the beginning of the story, the little fish, Otto, was only 5cm long.

But by the end of the story, Otto was so big he was just over the length of a 50m Olympic size swimming pool!

If his length doubled every ten minutes, how long did it take Otto to grow to this size?

ENABLING PROMPTS

1. Create a table to help you keep track of the size of Otto. Name the first column Time, and the second column Length. Remember that as you work through the problem, the units change from cm to metres to kilometres (for the extending prompt).
2. How long did it take Otto to reach 40cm? How long did it take Otto to reach 160cm?

EXTENDING PROMPT

If Mr Carp hadn't dived into the pool and saved the day, Otto would have kept on growing and growing.

How long would it have taken Otto to grow so big, he wouldn't fit into Albert Park Lake? The Yarra River? The Pacific Ocean? How long until he would have outgrown the earth? How long until Otto was so long, he would have stretched all the way to the moon? What about the sun? Pluto? Alpha Centauri? The known universe?

(Hint: Encourage students to create a spreadsheet to keep track of their calculations).

SHARE YOUR EXPERIENCE

How did students in your class approach the above investigation? Share your class's experience with the *Prime Number* editorial team (james.russo@monash.edu), with the opportunity to have it published in *Prime Number* as a resource to share with other teachers and students. If possible, try and include photographs of work samples and as well as of students engaging in the task.