

# TOGETHER FOR OUR MOANA - WE'RE SHAPING OUR FUTURE

INTEGRATED MATHS AND LITERACY LEARNINGS

**MATHS - The stats on ocean plastic  
and how big is one million?**



**WATCH THIS 1 MINUTE VIDEO. THEN DO THE MATHS!**

**[VIDEO - STOP PLASTIC!](#)**

## Background

Every year, around **8 million tonnes** of plastic end up in the ocean, harming marine life. An estimated **1 million sea animals** from more than **800 marine species**, including fish, turtles, and seabirds, are affected by plastic pollution, either ingesting (eating) it or getting tangled in it.

### Vocabulary check:

1 tonne = 1000 kg

A small car weighs approximately 1 tonne.



= 1 tonne

There are many large numbers in the paragraph above, but how big are these numbers actually?

### How big is ONE MILLION?

How long would it take one person to count to a million if you counted at a steady pace of one number per second?

Let's work it out:

*We know there are:*

- 60 seconds in a minute
- 60 minutes in an hour
- 24 hours in a day

## Activity

**Let's use this knowledge to work out how long it would take to count to 1 million.**

**How many seconds in an hour?**

1.  $60 \text{ seconds} \times 60 \text{ minutes} = \dots\dots\dots$  seconds per hour

*This is the number you can count to in an hour without stopping.*

**How many seconds in a day?**

2.  $\dots\dots\dots$  seconds in an hour  $\times 24$  hours =  
 $\dots\dots\dots$  seconds per day

*This is the number you can count to in a day without stopping.*

**How many days would it take to count to 1 million?**

3.  $1,000,000 \div \dots\dots\dots$  (the number of seconds in 1 day) =  $\dots\dots\dots$  days

## Activity

This means that if you could count non-stop without sleeping, eating, or taking breaks, it would take you about ..... days to count to a million.

However, in reality, you'd need to take breaks for sleep and food.

If you only counted for, say, 12 hours a day, it would take closer to ..... days to reach a million!!

**So if you counted continuously for 12 hours a day, how long would it take you to count to 8 million?**