

# Not so fantastic plastic



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# Plastic is everywhere!

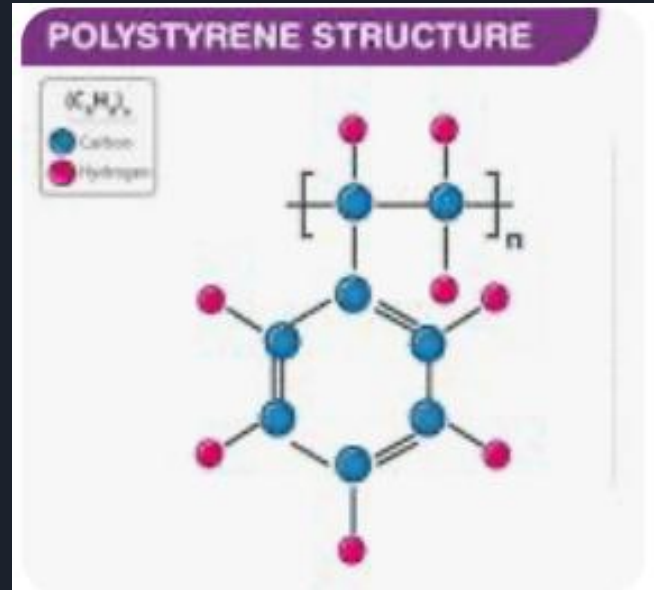
Did you know in between 1 and 2 million tons of plastic are disposed into the ocean every year





# Plastic is everywhere!

Did you know polystyrene plastic makes up 10% of all plastic waste in our world.



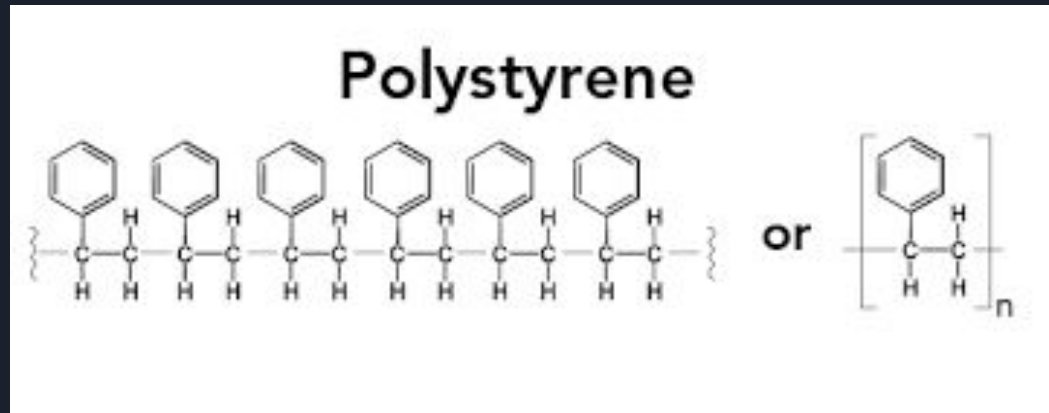
# Plastic is everywhere!

Polystyrene is a really big problem for our world and we must have a solution for it to be recycled.



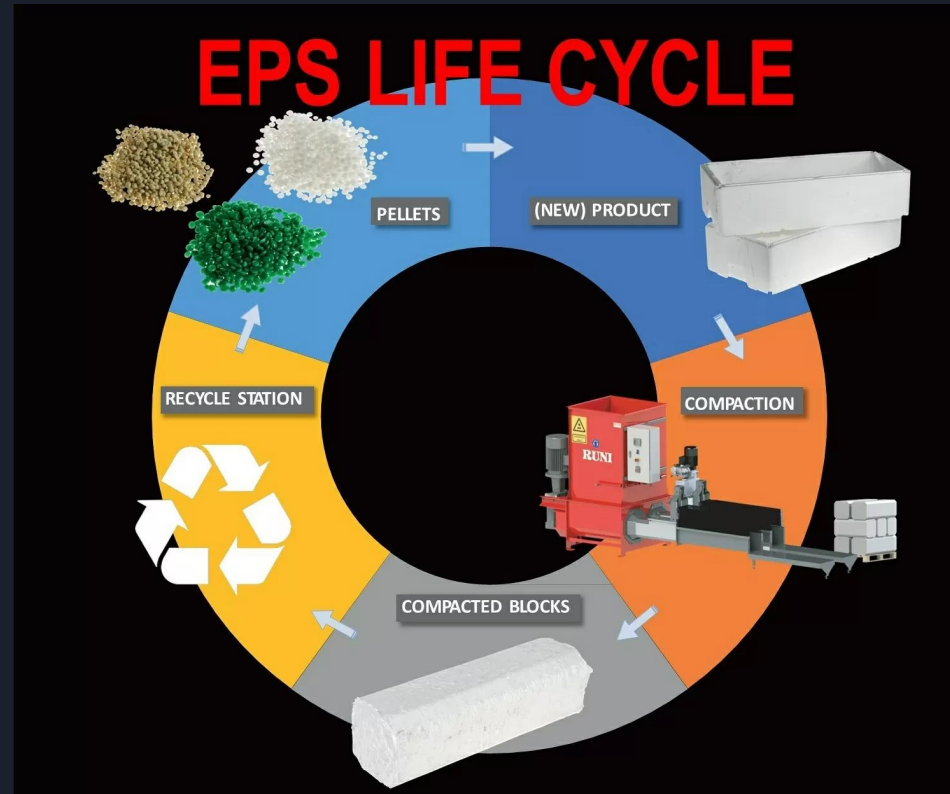
# What is polystyrene?

Polystyrene is a plastic. It is made up of small units called styrene. Many styrene molecules make polystyrene.



# How is polystyrene recycled now?

Polystyrene is recyclable. but because it is lightweight, bulky, and difficult to clean it is expensive to recycle.



The alternative option is with mealworms



NOT ACTUALLY  
WORMS!!!

# How can mealworms recycle polystyrene?

It has been discovered that mealworms have bacteria in their gut which can break down polystyrene to styrene.



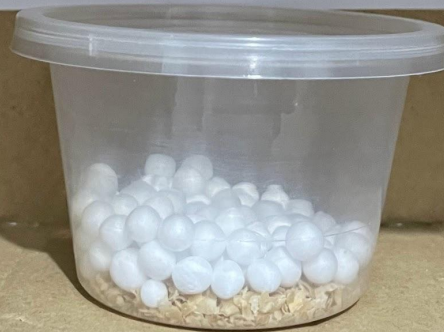
If we could replicate and mass produce how mealworms digest polystyrene it would mean that 10% of the worlds plastic problems would be almost gone.



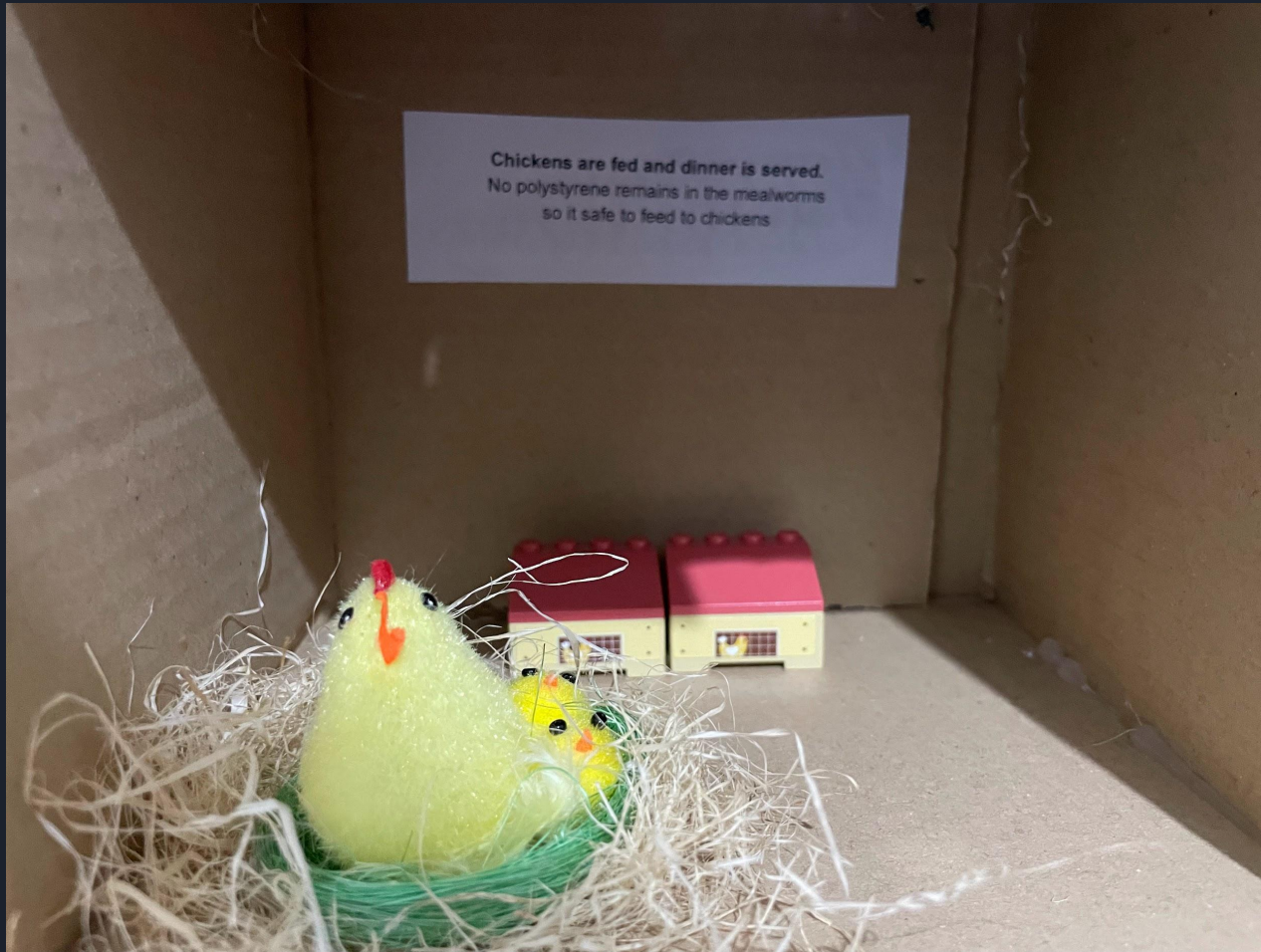
# My Model - Step 1 Breaking down polystyrene

## Digesting Polystyrene

**Step 1:** Mealworms eat the polystyrene with their food.  
Due to their microbiome they can degrade polystyrene into styrene molecules.



# Worms are fed to the chickens





# My Model - Step 2 waste processing



# My Model - Step 3 Recycling





# Future recycling

If we could break polystyrene down into its styrene components on a large scale, this can then be recycled to make many new materials.

