SOILS, BLACK GOLD
UNDER OUR FEET

In a market garden farm in the West of France, people can come after work to pick their own vegetables. Look ! The harvesting is in full swing.

Vegetables are really beautiful, aren't they? !

It's partly thanks to black gold, do you know what it is ?

I'm talking about soil organic matter, or O.M. for short.

It's not very far from us.

Dig

Dig

It's an essential component of the soil.

It's here ! ... Right under our feet.

Swip!

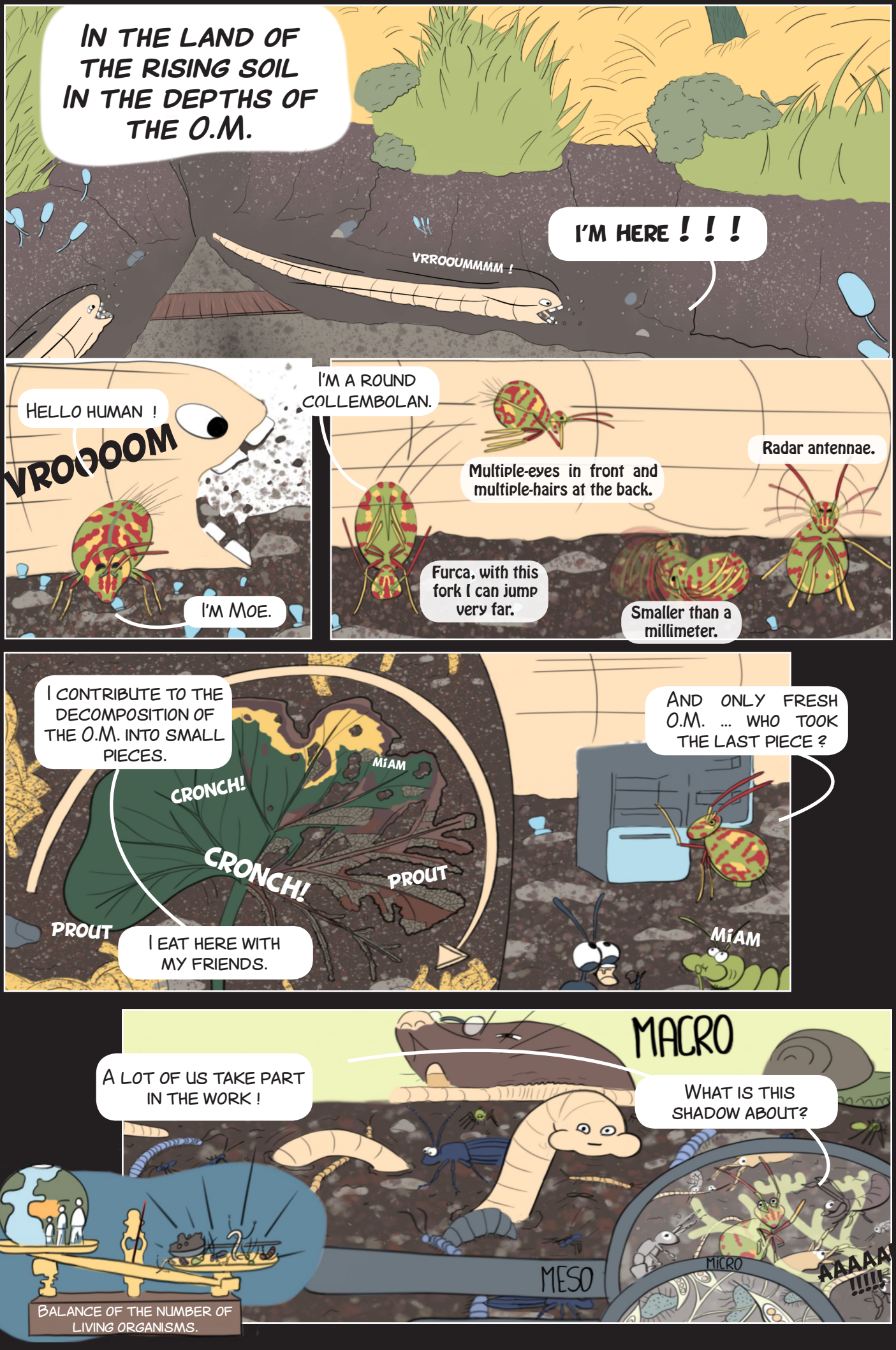
It brings fertility to soils by sticking its particles together and forming soil particles of different sizes.

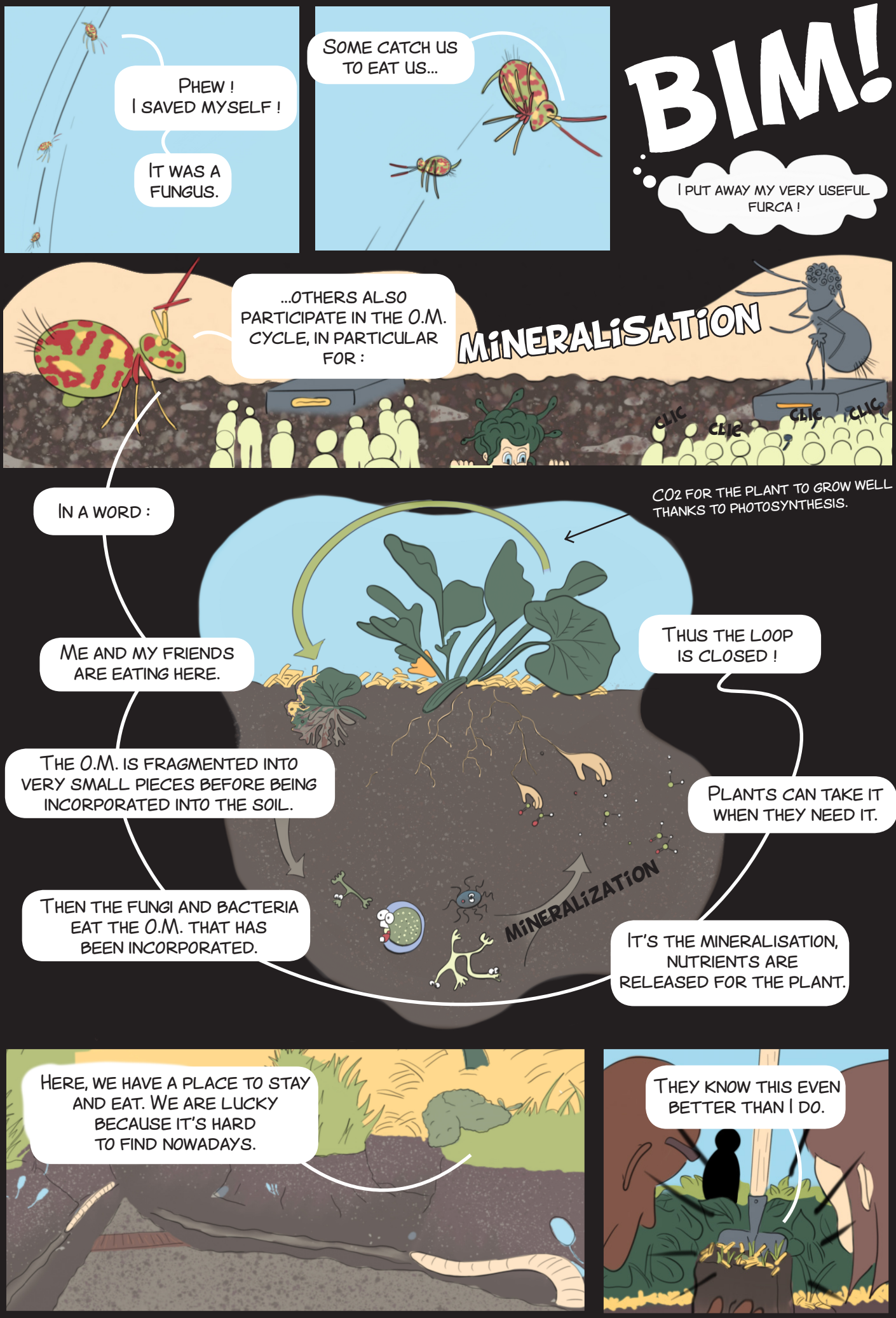
Hey ! Who turned on the light ?

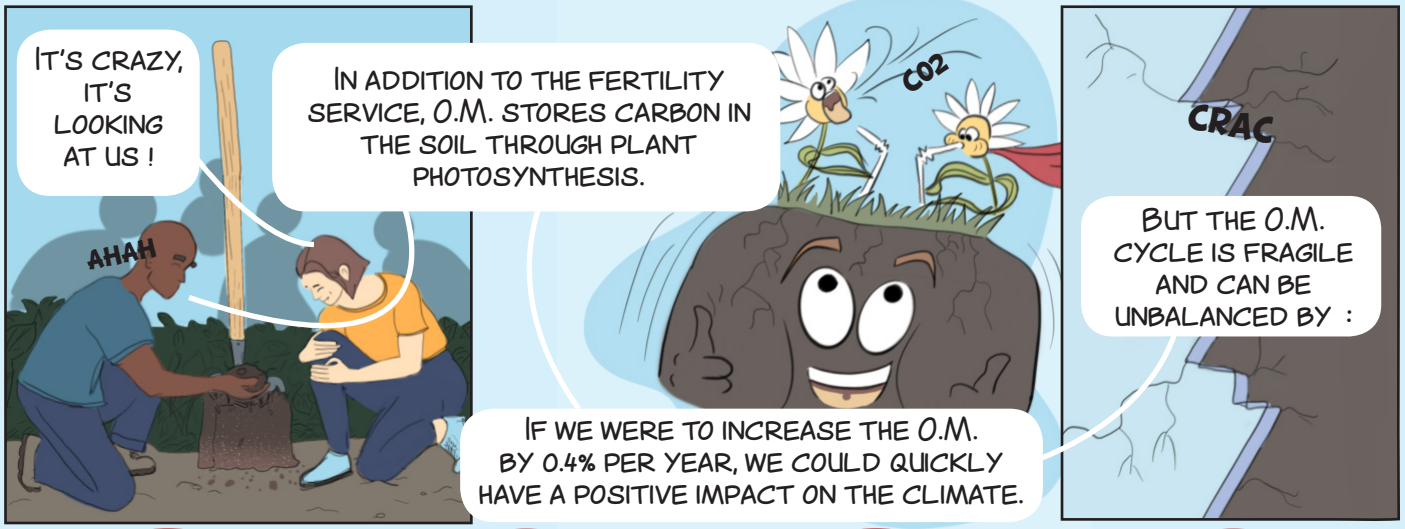
They are called aggregates.

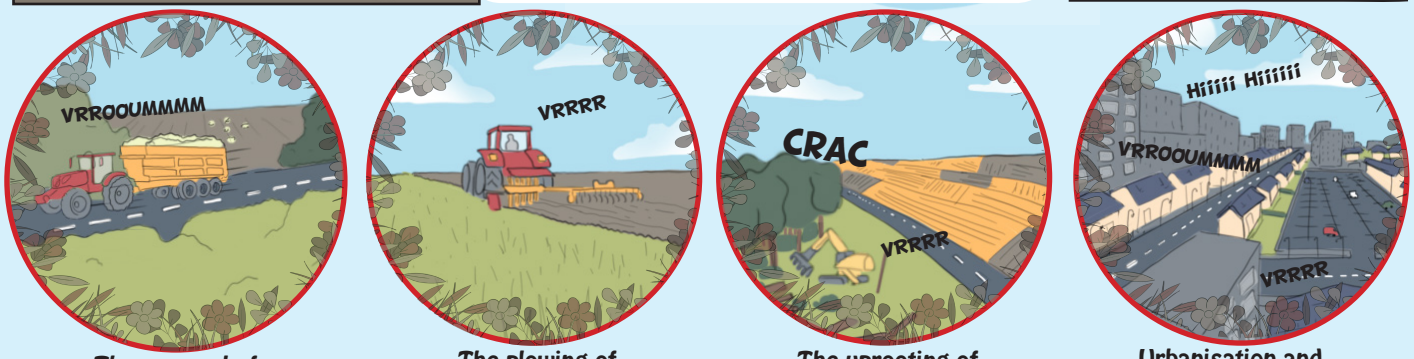
They retain water, are real pantries for plants and help structure the soil.

Take a look ! You can see that ? It's moving !!


In the land of the rising soil in the depths of the O.M.
VRROOUMMMM !
I'M HERE ! ! !
Hello human !
VROOOOM
I'm Moe.
I'm a round collembolan.
Multiple-eyes in front and multiple-hairs at the back.
Radar antennae.
Furca, with this fork I can jump very far.
Smaller than a millimeter.
I contribute to the decomposition of the O.M. into small pieces.
CRONCH!
CRONCH!
MIAM
PROUT
PROUT
I eat here with my friends.
And only fresh O.M. ... who took the last piece ?
MIAM
A lot of us take part in the work !
MACRO
What is this shadow about?
MESO
MICRO
AAAAA !!!!!
Balance of the number of living organisms.


PHEW ! I SAVED MYSELF !
IT WAS A FUNGUS.
SOME CATCH US TO EAT US...
BIM!
I PUT AWAY MY VERY USEFUL FURCA !
...OTHERS ALSO PARTICIPATE IN THE O.M. CYCLE, IN PARTICULAR FOR :
MINERALISATION
CLIC
CLIC
CLIC
CLIC
IN A WORD :
CO2 FOR THE PLANT TO GROW WELL THANKS TO PHOTOSYNTHESIS.
ME AND MY FRIENDS ARE EATING HERE.
THUS THE LOOP IS CLOSED !
THE O.M. IS FRAGMENTED INTO VERY SMALL PIECES BEFORE BEING INCORPORATED INTO THE SOIL.
PLANTS CAN TAKE IT WHEN THEY NEED IT.
THEN THE FUNGI AND BACTERIA EAT THE O.M. THAT HAS BEEN INCORPORATED.
MINERALIZATION
IT'S THE MINERALISATION, NUTRIENTS ARE RELEASED FOR THE PLANT.
HERE, WE HAVE A PLACE TO STAY AND EAT. WE ARE LUCKY BECAUSE IT'S HARD TO FIND NOWADAYS.
THEY KNOW THIS EVEN BETTER THAN I DO.

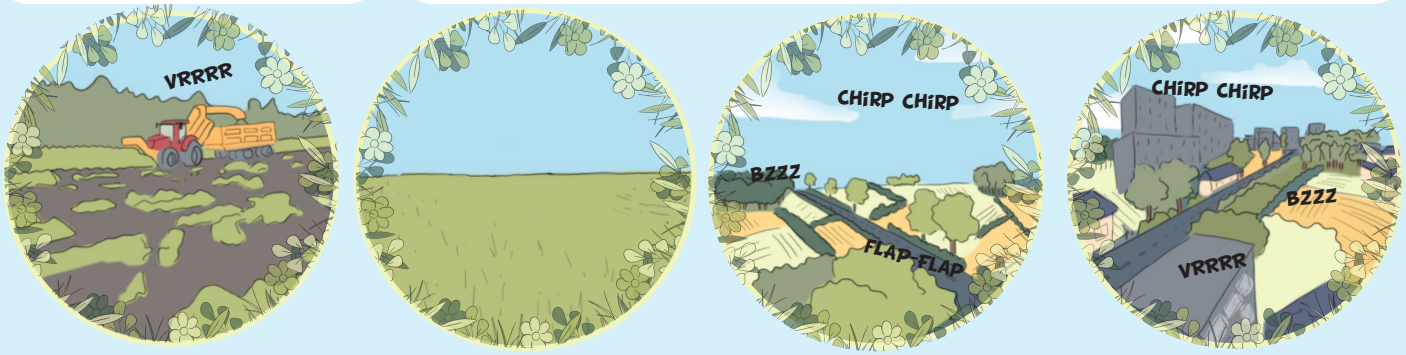




The removal of crop residues | The plowing of meadows | The uprooting of hedges | Urbanisation and covering soil

This is what we see a lot on TV.

Yes, but sometimes we forget to talk about everything that is already being done to promote the O.M. cycle :



Adding organic materiel and crop residues on site | Permanent soil cover | Landscape diversification and agro-forestry | Stopping urban sprawl and letting soil breath

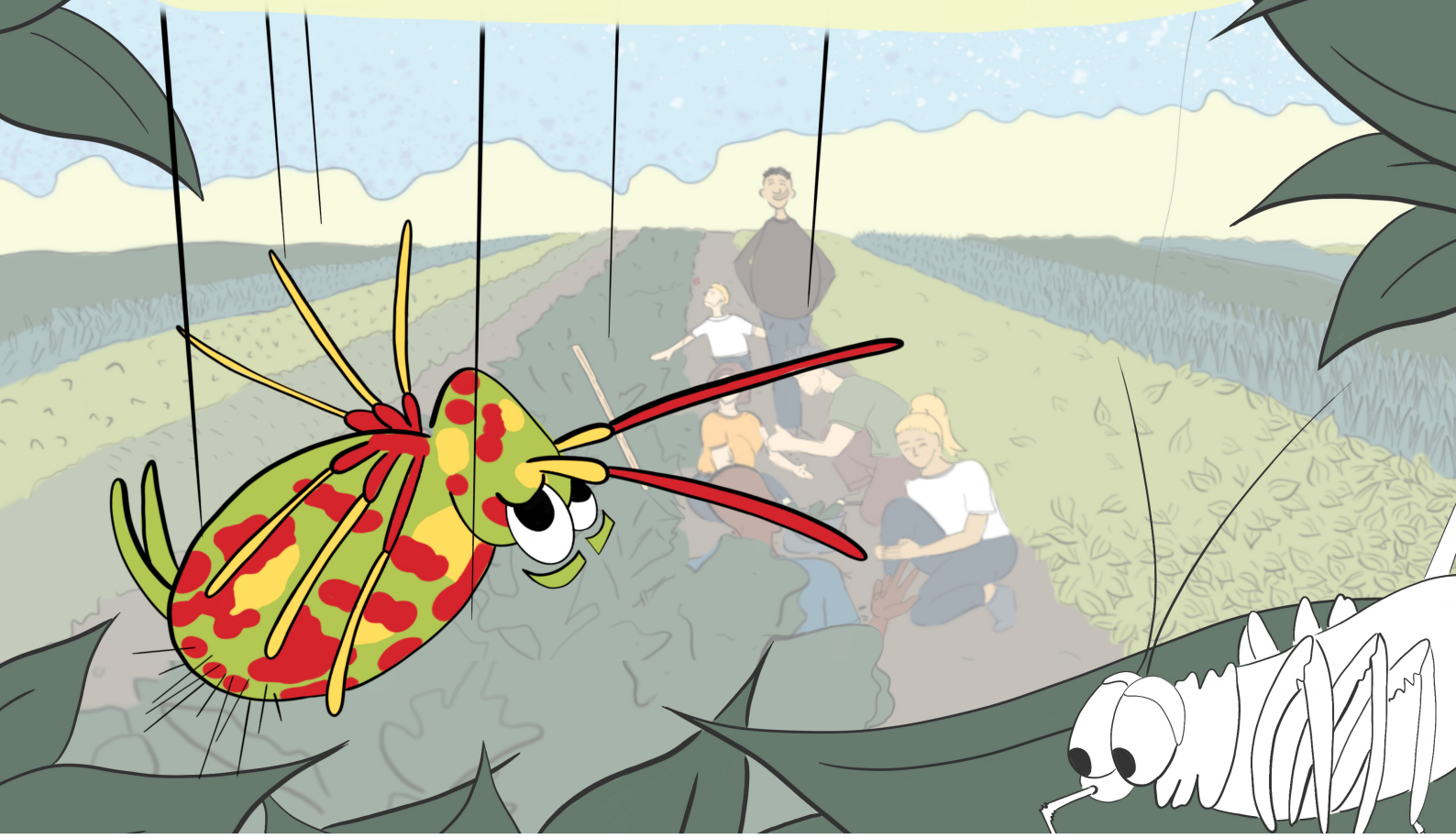
And they continued to discuss and harvest all together, every Wednesday morning.

This comic book is for children and parents !

You'll discover with Moe the Collembolan the recycling of organic matter in the soil of a vegetable farm where, under our feet, the land of the Rising Soil is activated.

Enjoy!

This comic book was created by Loïse Triollet Agricomics, in collaboration with Patrice Cannavo and René Guénon, teacher-researchers at Agrocampus Ouest Angers, as well as Antoine PIERART and Thomas EGLIN, engineers at ADEME, both in France.Thanks to our proofreaders : David Rees, Clément Pierart et Anouk Falloux.



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