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# Organic Composting – How Great!

(Kids Organic Composting Manual)





Da-daah!

I'm going to grow vegetables in my garden!

Growing Vegetables

Fertiliser

We'll be able to save money too

In a couple of months we'll have some delicious vegetables!

Wow!

After a month

Eh... they don't look healthy

You're right....

Looking forward to having them!

What's wrong

Whish! Whish!

Whoosh!

A few days later....

Droop!

Oh, there must be something wrong with the soil

Woah! Who is this stranger!

Bo bo bo...

## To the Reader of This Book

This book tells you how to make and use compost. Making compost brings many great benefits

**Saving waste collection and transportation fees**

Every year, Kitakyushu City, Japan spends about 10,000 yen per person on waste management fees

**Fun experiments**

Things you don't need can be used to grow vegetables

**Changing organic waste into a valuable resource**

We can learn about the soil and its microorganisms

**Enjoy our eco life**

You'll understand Biology, Chemistry and Living Things

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The essence of the soil

You called?

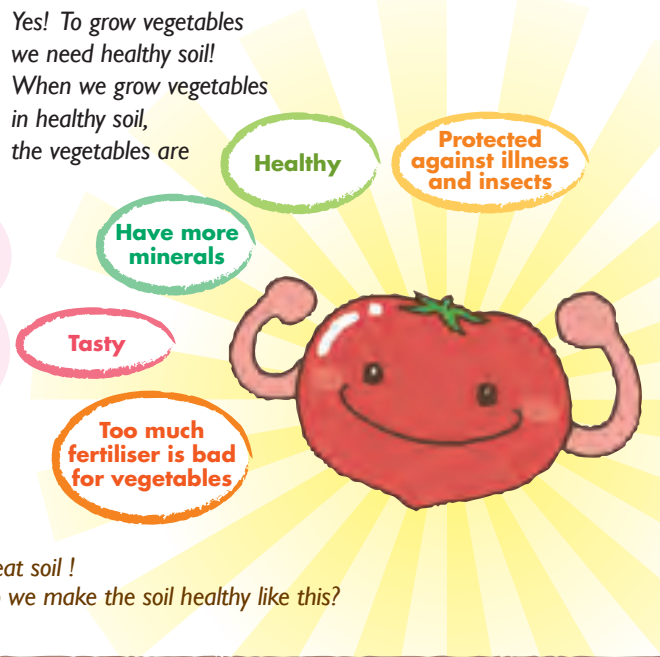


# Soil Friendly for Microorganisms

It's the essence of the soil!



What a great soil!  
But how do we make the soil healthy like this?



The secret is compost!



## So chemical fertilisers are no good?

Chemical fertilisers can help growing plants in the short term. However, they are not natural and damage the balance of the soil in the long term.



Using too much fertiliser does not help make good quality soil!

Compost is a natural way of making plants stronger

# Whaaaat's Compost?



Organic waste and stuff like fallen leaves from the natural environment can enrich plants and improve the soil

If you mix this into the soil, you'll make the soil healthy!

It's called compost



The soil becomes more soft

Makes it good for microorganisms



Nourishing Plants and animals

It's natural so it's safe!



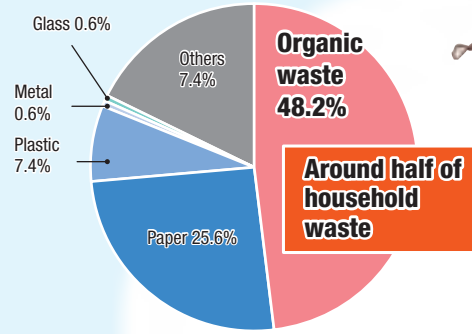
You can make compost from organic waste at home!

Eh? Really?



**Lets think about what's going on**

# Reducing Waste at Home



Kitakyushu City : 2011



Waste makes a bad smell



Annually, Kitakyushu city spends about 10,000 yen per person on waste collection and transportation.

**So organic waste is good for both the environment and your wallet!**



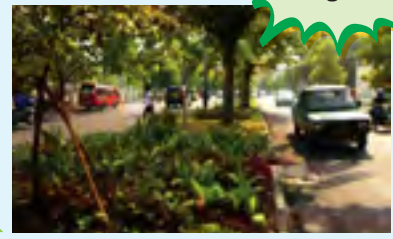
Southeast Asian cities have started using composting – let's have a look at how they got on

It's become really clean and green

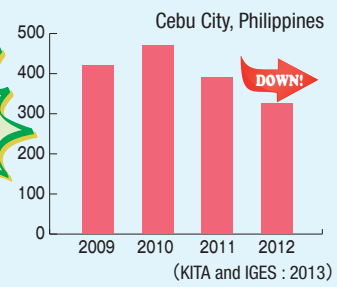
Waste all over the streets



Starting to make compost



**Waste reduced by 30%!**



It has helped to change the mind-set of the people



University students making compost in class rooms (St. Teresa University, Cebu City)



People start to work together, building community bonds (Cebu City)



All these changes happened with the technical assistance of Kitakyushu's people



They're having street meetings (Surabaya City)





# Let's Try Making Compost!!

## Step 1 What You Need

### Containers

★Use an aerated container



### Fermented liquid

★Sugar

★Water

★Fermented foods

Yoghurt, Miso, Sake, Natto, Yeast, Kimchi etc



The More Fermented Foods The Better!

Put sugar, water and fermented foods into the container and mix together.



Move all of the contents of the vinyl bag to the box  
Mix it once a day  
Do this for a week!



## Step 2 Growing the Micro-organisms

★Rotten Leaves Soil (15 litres)

★Rice (2 cups)

Fill up a vinyl bag



Fermented liquid

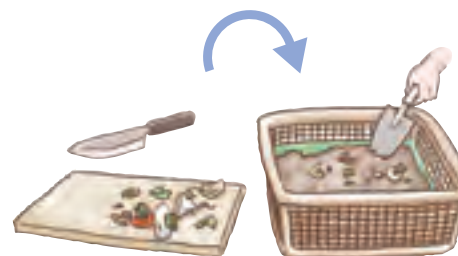
Rice and rotten leaves soil

Squeeze into a ball shape, it's ok if there is water left in

Once preparations are finished, we can make the compost!

## Step 3 Putting the organic waste into the box

Cut the organic waste into small pieces, put into the container and mix well



Mix it well once a day!

Make sure insects cannot get in



### POINT

1. Separate the water well
2. Cut the organic waste into small pieces
3. Mix it well so the air can get in

If you let the air in then the bad micro-organisms go out and the good micro-organisms come in

Put the cover over the basket



## Step 4 Maturing the compost

Take compost out and keep it for maturing



By filling up half the box with compost and waiting 2 to 3 weeks, it can be used for flowers and vegetables

Finished!

※In addition, if you keep the warm compost inside the plastic bag for several months, it will mature removing any unpleasant odours. Using it this way, vegetables and flowers can grow up healthily.

Wow!



# Let's See What is Going On Inside the Compost !!

In the compost there are lots of microorganisms

The microorganisms in the yoghurt and the natto help make the compost

Tasty!

The microorganisms are working!

During this time, heat is emitted

If the compost gets hot then the micro-organisms can eat the organic waste

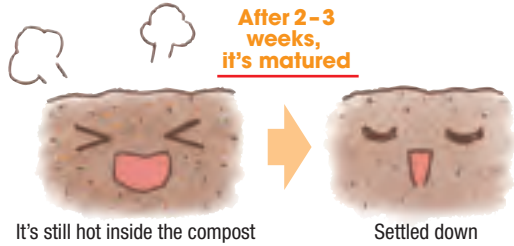
The living organisms need regular watering to grow

Something smells...



# Let's Try to Use Compost!!

## Compost is mixed with the soil



It takes 2-3 weeks for the compost to mature and be ready for planting.



Spread the compost on the whole area of a field, and plough it to a depth of about 10 cm

※ This method has the effect of improving the topsoil as well as softening the entire field

## When applying the compost in the planting area

Cover the soil with the compost after planting crops (Mulching)



Cut a 10cm deep circular furrow around the tree (ahead of its root tips) and put the compost in.



Approx. 10cm deep

※ The decomposition of the compost gets stimulated which gradually brings about the effect.

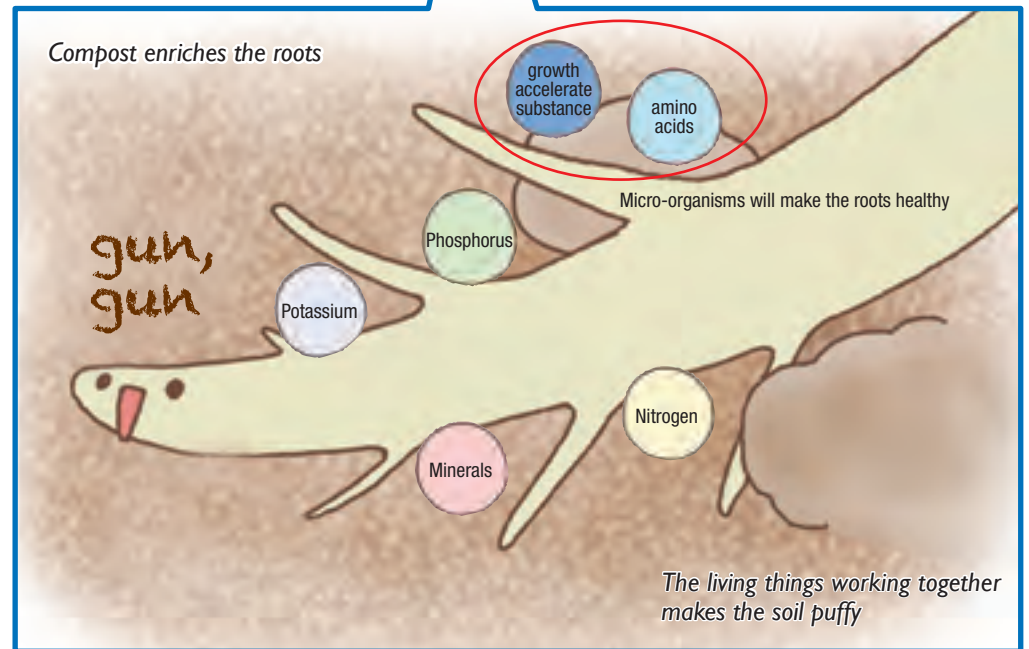
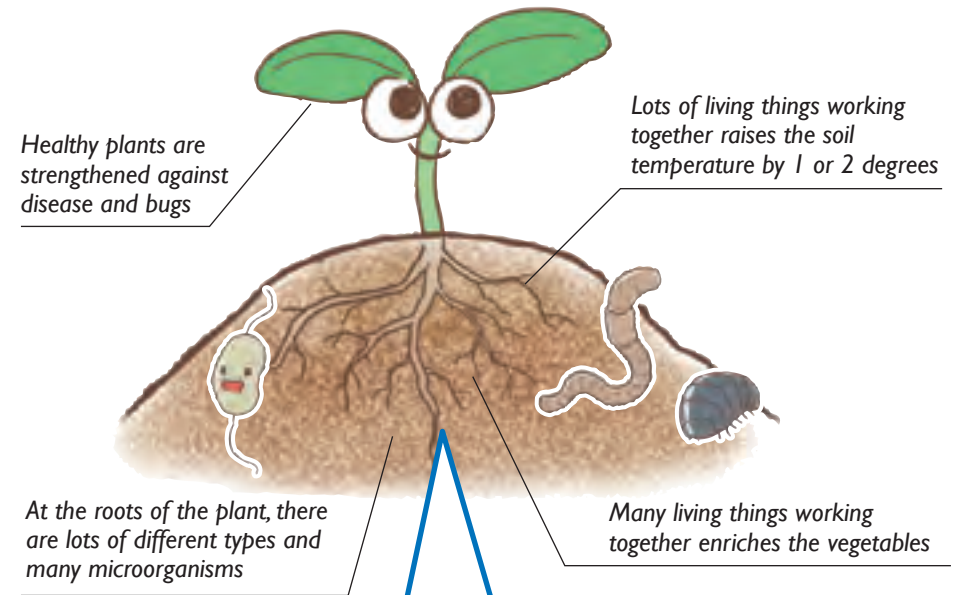
## Main Vegetables Planting Calendar

	April	May	June	July	August	September	October	November	December	January	February	March
Tomato												
Cucumber												
Anil												
Broccoli												
Potato												

Legend: ■ Planting ■ Growing ■ Harvesting

"Growing Healthy Vegetables through Recycling, Making Food Healthier" by NPO Daiicho to inochi no Kai (2011)

## How the Compost helps the Plants Grow



# So, Let's Harvest!!

Healthy soil makes for healthy plants!

So delicious ♥



**Lots of nutrition!**

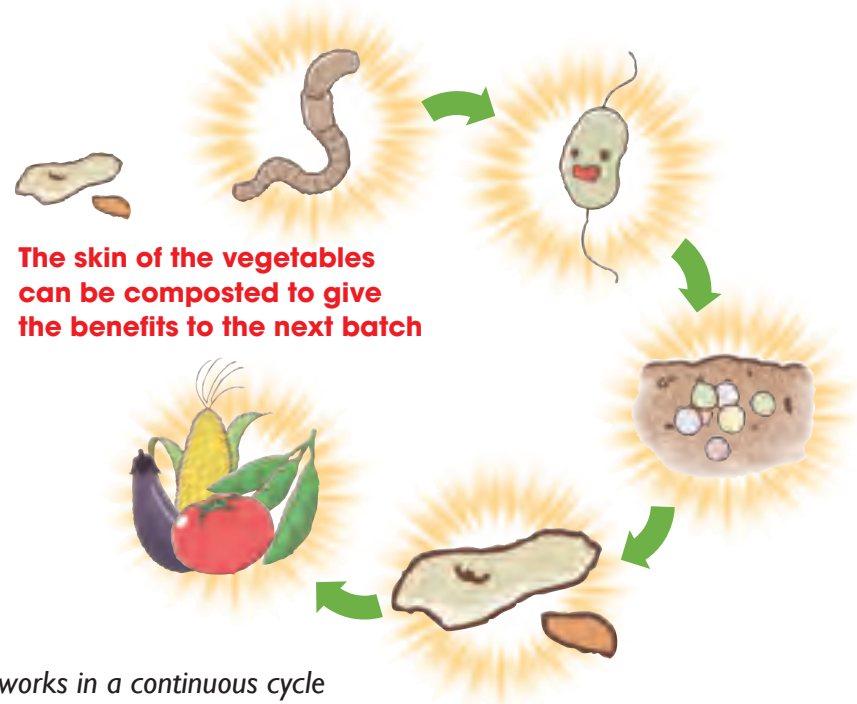
Vitamins, minerals etc

**Strong against bugs!**

Harmful bugs won't come close!

What are the benefits of eating healthy vegetables grown in compost

**The vegetables can always keep the benefits they receive and we can get the power from the vegetables**



If you eat a lot of vegetables grown in compost soil, you can get the power

Thanks! Thank you

See you later!

