DARBY BOINGS MEETS

Chrys and the Mums

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Gateway Greening
PRE-TEST

1. Garden vegetables are full of vitamins.
   □ True □ False

2. You can eat the roots of some veggies.
   □ True □ False

3. Spiders pollinate plants.
   □ True □ False

4. A garden can grow in a recycled container.
   □ True □ False

5. Gardening and being outside are not good for you.
   □ True □ False

We’ll find out the answers at the end of our adventure!
After buying the fruits and veggies at the farmers’ market, Darby had more energy and was back to his bouncing self. But the plant he bought wasn’t doing as well.

Oh no! My plant is looking a little droopy.

I wonder if Chrys’ mum can help.

How long have gardens been around?

It all began 10,000 years ago...

Way back, teosinte to maize to corn now.

I will grow the plant that is bigger!

Hi, Chrys! My plant isn’t doing well. Can you help?

Hi, Darby! Good to see you. Let’s see what we can do!

Chrys taught Darby about how to help his plant and also answered all of his questions about gardening, health and nutrition.

Darby was amazed at the history of gardening and how so many things have changed over the thousands of years of gardening and farming.

Yum!
Nutrition from the Garden

Fruits come in many shapes and sizes and grow on trees, bushes, stems and even vines! They are good for you when you crave a sweet snack.

Grains include wheat, oatmeal, rice, and many others that are used to make things like bread, cakes, cereal and much more.

Dairy like milk and cheese usually comes from cows but can also be made from soybeans.

Veggies are good and good for you. They grow on stalks, stems and underground. It’s important to eat a lot of veggies to grow big and strong.

Many people get protein from meat like chicken, pork and beef, but protein can also be found in plants like soybeans, black beans and others.

WOW! Look at how healthy all of the things from the garden are!
Why Are Plants Healthy?

There are a lot of ways fruits and vegetables help you stay healthy and strong! Fruits and veggies have lots of fiber and are good for all day energy!

Dr. McFettle

Rocco Broccoli

Oranges are full of Vitamin C, Vitamin B and Potassium. You’d better get your belly button that these navel oranges are full of fiber, too!

Captain Navel

Carrotina

I am Vitamin A+! For your skin, teeth, eyes and heart, Carotene helps you stay healthy from head to toe!

Rocco Broccoli

Move over, milk! You aren’t the only thing that provides calcium. Broccoli is full of vitamins C and A. The broccoli family helps prevent cancer, too!

Parts of Plants We Eat

Leaves
We eat the leaves from plants like lettuce

Fruit
We eat the fruit from plants like strawberries

Stems
We eat the stems from plants like asparagus

Seeds
We eat the seeds from plants like peas

Roots
We eat the roots from plants like carrots

Chrys took Darcy out to the garden to talk to Button Mum. He was an expert on plants and vegetables and the parts that you eat to make you healthy and strong!

Plants are so cool because we eat different parts of them to get the vitamins and minerals we need.
The plant gets its food from sunlight in a process known as "photosynthesis."

With a little T.L.P.C., tender loving plant care, your seed will grow!

Plants have "cycles," like day and night, they grow, blossom, then drop seeds to grow again!

And with sunlight...

The seed starts to grow.

With water...

The plant makes seeds that go in the ground and grow into new plants!

Bugs and birds help the plants to "pollinate," letting them reproduce.

The plants grow fruits, veggies, flowers and more!

Gardens need water, light and T.L.P.C. to grow and thrive!

Hey, I'm buzzy combz! It's great to pollinate!

Hey, I'm amazed. I had no idea that plants went through cycles like that.

How Does a Garden Grow?
Flowers are so cool! They smell nice, have many colors, and attract birds, butterflies and bees, like my friend Buzzie Combz! He’s the coolest bee around!

My official name is Danaus Plexippus, but my royal subjects call me Queen Dana. We monarch butterflies pollinate many plants when we migrate over hundreds of miles. We also eat a plant called milkweed when we are young!

I am gentlemantis! I eat garden pests, but I can also catch and eat mosquitoes that are pests for people!

I’m stiltz, the spider. I can be dangerous when I bite, but I help in gardens because I eat bugs that harm plants.

I’m Miss Lady, but I’m not actually a bug! I’m a beetle, and I help garden plants by eating pests that are harmful.

Visit MonarchWatch.com to find out more about monarch butterflies!

I’m wiggle! Worms do a lot to help gardens by digging holes that help air and water reach roots!

I’m stump! Worms also turn things like leaves into nutrients for plants, and we do it just by eating!
**Where Does Your Garden Grow?**

**Water Garden**
- Water gardens grow in pools or ponds.
- Many different types of plants can be grown in gardens.
- Gardens also come in many shapes and sizes!
- Container gardens are when plants are grown in pots, bins, barrels and more.
- Native gardens are grown in the way plants would be found in nature.

**Hugelkultur**
- Hugelkultur is when plants are grown on piles of rotting wood.

**Community Garden**
- Community gardens are grown by groups of people like friends, family and neighbors.

**Gardening by the Numbers**

- **PUSHING A WHEELBARROW** uses 27 calories every ten minutes!
- **WEEDING** uses 150 - 157 calories per hour!
- **PLANTING A GARDEN** uses 135 - 177 calories per hour!
- **DIGGING WITH A SHOVEL** uses 150 - 197 calories per hour!

**Flexibility**, **Joints**, **Heart**, **Bones**
Darby’s head was buzzing with all of the good things about gardens, plants, vitamins, and how healthy gardening makes you—inside and out!

Wow! I feel like I know so much about gardening now! I think I want to get my friends to make a community garden, where I will plant my basil.

So Darby and his friends decided to plant a community garden and get it “growing”!

**Use a trowel to dig in small places like to plant seeds.**
**Use mulch to help plants grow and to keep soil moist.**
**Use shears to trim plants and clip weeds.**
**Wear garden gloves to keep your hands safe.**
**Use a shovel to dig out plants or make larger holes.**

**Scrap**

**Collect**

**Process**

**Growing plant**

**Food**

Composting

Trash is trash, right? Wrong! Certain types of trash, like food scraps, can be turned into soil through a process called “composting.” Once you eat food, collect the scraps and put them into a pile or a special bin. All of the “ingredients” in the bin will heat up and break down into soil full of nutrients to help new plants grow into food that can be composted again!
From Farm to Table

First, plants are grown on farms in large fields.

Second, the harvested plants are stored until they're ready to go to market!

Darby thought about growing the Community Garden while he was eating his veggies from the Farmers' Market. As he chomped on his tasty carrot, he was amazed at all of the hard work it took to get it from the farm into his belly...

ForK in the Road Farms

Third, fruits and veggies are taken to the store.

Second, the harvested plants are stored until they're ready to go to market!

Basil is an herb. It's used a lot in cooking many types of pasta. Darby named his wallabasil!

Road to Nutrition!

Lastly, the fruits and veggies are bought and cooked or eaten raw!

Don't forget to use: T.L.P.C.!

Tender Loving Plant Care

From the farm to his plate, Darby's carrot had been given tender loving plant care every step along the way! Darby knew that T.L.P.C. would help his plant grow up to be in their community garden.
Get Going on Your Garden Growing!

**Water**
Your growing plant will need enough water, but not too much.

**Container Gardens**
Can come in any shape and size!

**Walla Basil**

**Drain Water**
Make sure there is a container under your garden pot to catch any extra water that drains from your plant.

**Pat Dirt**
When you plant your seed, pat the dirt down over it.

**How would you paint or decorate your pot?**

**Clean**
After handling your plant, make sure to wash your hands or use an antibacterial hand cleaner.

**Afterwards, you can transplant your plant in a community garden!**
My Garden Journal

Draw a picture of your plant each day and write what you notice changing. Did you name your plant? Write that, too!

Day 1

Write your plant's name here!

Day 3

What's "growing on" with your plant?

Day 5

What's "growing on" with your plant?

Day 7

What did you name your plant?

Day 9

What's "growing on" with your plant?

Day 11

What's "growing on" with your plant?

Day 13

What's "growing on" with your plant?

Day 15

What's "growing on" with your plant?
**Word Find**

Find the words in the list and circle them.

- WHDIO HLEGUS PLANTS GGILGO
- BLDUGOWLADFI UGLDUGAGLDUL
- GILAIETALDL SIDLGJEODUGH
- SLGUDHRLDUX XCSUNLIGHTLW

**Words**
- SOIL
- PLANTS
- WATER
- SUNLIGHT
- BUGS

**Spot the Differences**

Find seven differences and circle them.

- Find the differences between the two images.

**Connect the Dots**

Connect the dots then color button mum.

- Connect the dots and color the character.
Color the Container Garden

Plants come in many shapes, sizes and colors. Color the plants below and decorate them with stripes, dots or just different colors!

Now answer the following questions to find out what you’ve learned about gardening and plants!

Post Test

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   - True  - False

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FROM HUGELKULTUR TO CONTAINER GARDENS, SEEDS WILL REALLY GROW. I KNOW WHAT PLANT PARTS GROW ABOVE THE DIRT AND WHICH GROW DOWN BELOW.

BUZZY COMBZ AND HIS BUG POSSE TAUGHT ME ALL THE PARTS OF A FLOWER. THEY NEED LOTS OF DIRT, AND LIGHT, SOME POLLEN AND A WATER SHOWER!

WE EAT SO MANY PARTS OF PLANTS—THEIR LEAVES, THEIR STEMS AND SEEDS. THEY GIVE US THE VITAMINS AND MINERALS THAT EVERYBODY NEEDS!

WHERE WOULD CORN AND ORANGES BE WITHOUT A “MAIZE” OR NAVAL? THEIR GROWING HISTORY GOT THEM FROM THE FARM ONTO MY TABLE!

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KEEP THE PLANET HEALTHY! THIS BOOK WAS PRINTED ON RECYCLED PAPER!

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