Name _____ Period _____
Due date _____

COMPOST PROJECT

WHAT IS COMPOST?

Compost is rich, dark soil produced from the breakdown of kitchen scraps and yard waste. Gardeners often call compost "Black Gold" because it is so rich in minerals. Compost creates excellent soil for gardening and landscaping. The decomposition process is fueled by millions of microscopic bacteria and fungi (decomposers) living in your pile. A healthy compost pile has no odor, just a nice earthy smell.

In this project you will contribute to the class compost pile.
Each week you will bring in ONE GREEN and ONE BROWN to add to the pile. You will also make journal entries once a week as you observe changes in the compost pile.

GREENS (50%) Break down fast	**BROWNS (50%)** Break down slow
Fruits Vegetables Grass clippings Coffee grounds Tea bags (no staple) Egg shells (rinsed) Manure (Cow, horse, chicken) Bread Rice Pasta (no sauce or oil) Landscape trimmings	Fall leaves Twigs (broken up) Pine needles Hay Sawdust Paper (no colored inks) Paper towels Napkins Dryer lint Hair (human, dog, cat) Corrugated cardboard

DO NOT ADD		
Meat	Dairy (milk, cheese, yogurt)	Cat or dog poop
Fish	Oils, butter, or grease	Bones

COMPOST JOURNAL (Week #1)

Date _____	Temperature of pile _____
GREEN you brought in N/A	BROWN you brought in N/A
5 other items added to pile	Green (G) or Brown (B)

OBSERVATIONS (Describe each of the following)
This week's weather
Look of the pile and its ingredients
Changes from last week N/A
Insects & animals
Aroma & texture N/A

COMPOST JOURNAL (Week #2)

Date _____	Temperature of pile _____
GREEN you brought in	BROWN you brought in
5 other items added to pile	Green (G) or Brown (B)

OBSERVATIONS (Describe each of the following)
This week's weather
Look of the pile and its ingredients
Changes from last week
Insects & animals
Aroma & texture

COMPOST JOURNAL (Week #3)

Date _____	Temperature of pile _____
GREEN you brought in	**BROWN you brought in**
5 other items added to pile	**Green (G) or Brown (B)**

OBSERVATIONS (Describe each of the following)
This week's weather
Look of the pile and its ingredients
Changes from last week
Insects & animals
Aroma & texture

COMPOST JOURNAL (WEEK #4)

Date _____	Temperature of pile _____
GREEN you brought in	BROWN you brought in
5 other items added to pile	Green (G) or Brown (B)

OBSERVATIONS (Describe each of the following)
This week's weather
Look of the pile and its ingredients
Changes from last week
Insects & animals
Aroma & texture

ANALYSIS & CONCLUSIONS

1. What impressed you the most about composting?

_____

2. Which item did you observe that decomposed QUICKLY? _____

3. Which item did you observe that did NOT decompose? _____

4. On a scale of 1 to 10, how would you rate your composting experience? (circle one)

PLEASE NEVER DO THIS AGAIN! **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** WOW! I CAN'T WAIT TO COMPOST AT HOME!

5. Using the information on the front page, identify each item as:

G (Green) **B** (Brown) **N** (Not to be composted)

TWIGS	_____	CHEESE	_____
MEAT	_____	FRUITS	_____
DOG POOP	_____	GRASS	_____
BREAD	_____	BUTTER	_____
VEGETABLES	_____	NAPKINS	_____
FALL LEAVES	_____	HAIR	_____

6. Which items break down quickly? (circle one) GREENS BROWNS

7. Which items break down slowly? GREENS BROWNS

READING – Read each of the following passages and answer the corresponding questions

Composting Basics

All composting requires three basic ingredients:

- Browns - This includes materials such as dead leaves, branches, and twigs.
- Greens - This includes materials such as grass clippings, vegetable waste, fruit scraps, and coffee grounds.
- Water - Having the right amount of water, greens, and browns is important for compost development.

Your compost pile should have an equal amount of browns to greens. The brown materials provide carbon for your compost, the green materials provide nitrogen, and the water provides moisture to help break down the organic matter.

_____ 8. What do greens provide to the compost pile?

A. Nitrogen B. Carbon C. Moisture

_____ 9. Coffee grounds are considered a

A. Green B. Brown C. Not to be composted

Benefits of Composting

- Enriches soil, helping retain moisture and suppress plant diseases and pests.
- Reduces the need for chemical fertilizers.
- Encourages the production of beneficial bacteria and fungi that break down organic matter to create humus, a rich nutrient-filled material.
- Reduces methane emissions from landfills and lowers your carbon footprint.

Composting Reduces Waste

Organic wastes, such as food waste and yard waste, make up 25 to 50% of what people throw away. While you may not be able to compost all of the organic waste you generate, composting can significantly cut down on your overall trash.

Compost is Great for Plants, Lawns, and Gardens

- Increases organic matter in your soil.
- Helps plants absorb nutrients already in your soil and provides some extra nutrients too.
- Makes clay soils more airy and helps them drain better.
- Makes clay and other soils more friable, which means they'll be easier to crumble and dig in.
- Helps sandy soils retain water that normally runs through.
- Helps balance the pH of your soil.
- Can extend the growing season by moderating soil temperature.
- Can even help control soil erosion!

Composting is Fun!

Okay, maybe "satisfying" is a better term. When you compost, you're much more aware of trash in general, and you're truly completing the recycling loop.

10. Give any 2 benefits of composting:

_____

_____

_____ 11. What is the other name for compost that occurs in nature?

A. Nitrogen B. Carbon C. Humus

_____ 12. What % of garbage is actually compostable food and yard waste?

A. 10 to 20% B. 25 to 50% C. 75 to 100%

13. How does compost help CLAY soil?

_____

14. How does compost help SANDY soil?

_____

Uses of Compost

Mulch

In nature we see plants and trees drop leaves that accumulate at their bases. Every year, a new layer is added while the old layers start to decompose. This is leaf mold, and it is a form of compost. What nature is doing is providing a protective layer over the roots of plants. This layer of vegetative material protects the bare soil during the summer months by reducing soil temperature, suppressing weed growth and reducing soil moisture loss. Our compost can do the same thing in our gardens and landscapes.

_____ 15. How does compost protect the soil?

A. Reduces soil temperature
B. Suppresses weed growth
C. Reduces moisture loss
D. A, B, & C