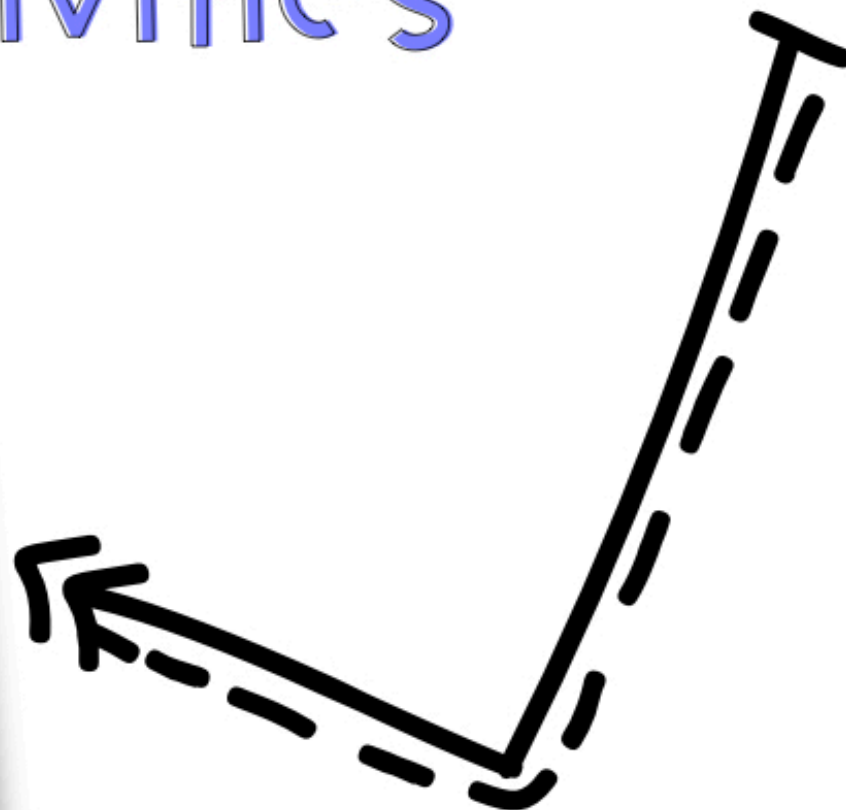


10 SCIENCE EXPERIMENTS & ACTIVITIES

Science Investigations

Plants and Flowers

1. How does a plant use water?
2. What do plants need to grow?
3. How does a potato plant grow?
4. Do bugs use plants for shelter?
5. How fast does a bean plant grow?
6. How does a carrot plant grow?
7. Are there different kinds of leaves?
8. Do flowers need stems?
9. Which liquid makes a plant grow the most?
10. Art Project: Vegetable Stamps



***EACH EXPERIMENT AND
ACTIVITY INCLUDES A DETAILED
STUDENT SCIENCE JOURNAL!
**SEE EXAMPLES ON THE
FOLLOWING PAGES****

7 PARENT LETTER OPTIONS

Dear Families,

We are going to begin our Science Unit "Plants and Flowers". In this unit, we will be investigating plants and flowers with the help of many science projects and activities.

In order to be the most successful, we need to collect the items listed on the following page(s).

Anything you can donate would be greatly appreciated.

Please send any donations to school with your child by _____

Thank you for your donation!

Sincerely,

Dear Families,
For need to

Dear Families,

As we continue our Science Unit "Plants and Flowers", we need to collect the items listed on the following page(s).

Anything you can donate would be greatly appreciated.

Please send any of the following items with your child to school by _____

Thank you for your donation!

Sincerely,

Dear Families,
We are
and Flowers
plants and
science pr
in order
to collect

Please send any of the following items with your child to school by _____

Thank you for your donation!

Sincerely,

Dear Families,

We are going to begin our Science Unit "Plants and Flowers". In this unit, we will be investigating plants and flowers with the help of many science investigations and activities. Each investigation will be hands-on and students will be documenting their findings in their science notebooks.

How does a plant use water?
What do plants need to grow?
How does a potato plant grow?
Do bugs use plants for shelter?
How fast does a bean plant grow?
How does a carrot plant grow?
Are there different kinds of leaves?
Do flowers need stems?
Which liquid makes a plant grow the most?
Art Project: Vegetable Stamps

Please continue to ask your child about how these investigations are going at school.

Thank you for your support!

Sincerely,

Anything you can donate would be greatly appreciated.

Please send these items with your child to school by _____

Thank you for your donation!

Sincerely,

Please send any of the following items with your child to school by _____

Thank you for your donation!

Sincerely,

SUPPLY LISTS

-EASY WAY TO GATHER SUPPLIES
-EASY WAY TO SEND HOME TO PARENTS FOR DONATIONS

Art Project:

Vegetable Prints

Supplies we need:

- Carrots
- Potatoes
- Radishes
- Celery Stalks
- Sweet Potatoes
- Red Cabbage

Investigation:

Do flowers need stems?

Supplies we need:

Investigation:
Are there different kinds of leaves?

Supplies we need:

- Assorted Fresh Leaves
- Assorted Crayons
- Liquid Glue
- Blank Paper

Investigation:
How do carrot plants

Supplies we need:

Investigation:

Do bugs use plants for shelter?

Supplies we need:

- Magnifying Glasses
- Small Shovels
- Buckets or Small Bags
- Paint Brushes
- Shallow (Clear) Dish

Investigation:

What do plants need to grow?

Supplies we need:

- Seeds (any type of bean works great)
- A Sunny Windowsill
- Potting Soil
- Dark Cupboard

Investigation:

Which liquid does a plant grow best in?

Supplies we need:

- Potting Soil
- Clear Plastic Cups
- Dried Beans
- Water
- Milk
- Juice
- Pop/Soda
- A Sunny Windowsill

Investigation:

How fast does a bean plant grow?

Supplies we need:

- Paper Towels (or cotton balls)
- Water
- Dried Beans
- Clear Plastic Bag (or container)
- A Sunny Windowsill

Investigation:

How does a potato grow?

Supplies we need:

- Sweet Potatoes
- Water
- Toothpicks
- Several Glass Jars
- A Sunny Windowsill

Investigation:

How does a plant use water?

Supplies we need:

- Water
- Scissors
- Food Coloring
- Fresh Flowers (use light colored or white flowers)
- Celery Stalks

DETAILED TEACHER INSTRUCTIONS

Please read this AND the materials pages carefully before beginning any experiment! These instructions will prepare you for all of the experiments in this packet.

Teacher Instructions

Experiment 1: How does a plant use water?

1. Fill cups with water.
2. Add a few drops of food coloring.
3. Cut the end of the flower stem or celery stalk (to ensure the water will be absorbed).
4. Put the flower or celery stalk in water and wait one day.
5. Help students document results in their science journals.

Experiment 2: What do plants need to grow?

1. Take the two flower pots and fill them with soil. Leave about an inch of space at the top.
2. Make a hole in the center of the soil with your thumb in both pots.
3. Drop 3 seeds in the hole in each pot and then cover the hole with soil.
4. Water one of the flower pots with some water and place it in a warm sunny spot.
5. Do not water plant 2nd flower pot and place it in a cool dark cupboard.
6. Help students document the results over time in their science journals.

4. Help students carefully spread out their sample in an appropriate workspace and use paintbrushes to delicately look for living things. Help students identify and describe what they find.

Experiment 5: How fast does a bean plant grow?

1. Help students put the cotton balls or rolled up paper towels inside container.
2. Place several beans about half way down the side of the container so that you can see them.

How do carrot plants grow?

1. You may need to place the container in a sunny window so the beans grow towards the sunlight and leave for a few days.
2. Document the changes you see as time goes by. You may want to keep adding water every other day to make sure they are getting enough water to grow.

How do carrot plants grow?

1. Place cotton balls to the dish/plate.
2. Add a small amount of water to cotton balls.
3. Place the carrot top into the wet cotton balls.
4. Place in a sunny window.
5. Observe the growth over time. (Add water to keep it moist.)
6. Note the shape of the carrot you can see above the ground.

Experiment 8: Do flowers need stems?

1. Help the students cut the stem off of one of the flowers using scissors.
2. Fill each cup about halfway with water and place one flower in each cup (one flower without a stem and one flower with a stem).
3. After about an hour, check the flowers and help your students write any notes in their journals.

Are there different kinds of leaves?

Have a good area for your students to have a collection of leaves ready for time. Also, this activity is a great discussion about "seasons", "trees", and a great extension check out a book similar to the following:

All about Trees for Kids* By Gail Gibbons
How do Leaves Change Color? By Betsy Maestro
Seasons* By H.A. Rey

Even tie in a book like "The Giving Tree" by Shel Silverstein (if you want to be really creative). For this activity you will need glue and crayons ready to go as well.

Students have picked two leaves to compare/contrast. They will glue these in the designated spots in their science notebooks.

NOT BE ABLE TO GLUE THIS SCIENCE INTO THEIR SPIRAL UNTIL AFTER THE OBSERVATIONS.

5. Crayon Shading: Place the paper ON TOP of the leaf and hold it down while you color on the paper, leaving a really cool imprint of its ridges, edges, etc.

What do plants like to drink best?

Prepare a mixture of soil, seeds, and liquid for each experiment. Water and liquid is "watered" then placed in a sunny spot of sunlight. Repeat this with each week in their science journals.


Leaf Stamps Art

Students will need to prepare several pages in prior pages) by using a stamp. You will need to prepare a workspace for this activity. It is definitely FUN!

For a taste test, this would mean to be cut into bite-size pieces. This would be a great way to engage students!


HOW DOES A PLANT USE WATER?

How does a plant use water?



Name: _____

How does a plant use water?



Name: _____


all I use.



er?



Add a few drops of food coloring.
I chose the color _____



cup with water.

THIS IS HOW MUCH WATER I PUT IN IT.

Step 4: Put the flower or celery stalk in colored water and wait one day.

THE FLOWER/CELERY STALK

	AFTER
--	-------

Put the flower or celery stalk in colored water and wait one day.

end of the flower stem or celery stalk.

I can draw a celery stalk.

--	--


***EACH BOOKLET CAN BE PRINTED, STAPLED, & CUT IN HALF TO MAKE TWO JOURNALS!**

How does a plant use water?

My Hypothesis

I think that _____

Step 1: Fill the cup with water.



THIS IS HOW MUCH WATER I PUT IN IT.

end of the flower stem or celery stalk.

I can draw a flower and label its stem. I can draw a celery stalk.

--	--

CONCLUSION

IAT...

sthis was: right wrong

THE CONCLUSION

IED THAT...

sthis was: right wrong



WHAT DO PLANTS NEED TO GROW?

What do plants need to grow?

Name: _____

What do plants need to grow?

Name: _____



Step 1: Label all the materials we need for this experiment.

Word Bank

- sunlight
- soil
- water
- air



Step 2: Take the two flower pots and fill them with soil. Leave about an inch of space at the top.



POT 1

POT 2

Step 3: Drop three seeds in the hole in each pot and cover the hole with a little soil.

POT 1

POT 2




What do plants need to grow?

My Prediction

Do plants need sunlight to grow? Circle one.

Yes, I think plants need sunlight to grow!

No, I think plants can grow without sunlight.



Step 4: Water one of the flower pots with water and place it in a warm sunny spot.



POT 1

POT 2

Step 5: Water the second flower pot with water and place it in a cool, dark cupboard.

POT 1

POT 2



we observed:

Pot 2

Day 2

Day 7

we observed:

Pot 2

Day 2

Day 7

second flower pot in dark cupboard.

What we learned:

Plants need...

prediction was: right wrong

What we learned:

Plants need...

RESULTS AT 2 WEEKS

POT 1

POT 2

RESULTS AT 2 WEEKS

POT 2

we observed:

Pot 2

Day 10

Day 14