

# POLLEN RELAY RACE!



**LEVEL: 2ND-3RD**

**CAN BE ADAPTED FOR ALL GRADE LEVELS K-5**

## GEORGIA STANDARDS CONNECTION:

- LS2A: INTERDEPENDENT RELATIONSHIPS IN ECOSYSTEMS
  - ANIMALS CAN MOVE AROUND, BUT PLANTS CANNOT, AND THEY OFTEN DEPEND ON ANIMALS FOR POLLINATION OR TO MOVE THEIR SEEDS AROUND.

## OBJECTIVES:

- STUDENTS WILL DISCOVER THE ROLE OF POLLINATORS
- STUDENTS WILL LEARN THE DIFFERENT TYPES OF POLLINATORS
- STUDENTS WILL ROLE PLAY THE ACT OF POLLINATION

## SUBJECT MATTER:

- ENVIRONMENTAL SCIENCE
- ECOLOGY

## SUMMARY OF TASKS/ACTION:

- STEP 1: GATHER AND PREP ALL MATERIALS: FLOWER CUT OUTS AND POLLEN EXAMPLES
- STEP 2: READ THROUGH LESSON AND DISCUSS THE ROLES OF POLLINATORS WITH YOUR STUDENT
- STEP 3: RUN THROUGH THE ACTIVITY STEPS WITH YOUR STUDENTS. YOU CAN GET OUTSIDE OR STAY INSIDE BY HIDING FLOWERS AROUND THE HOUSE!
- STEP 4: AFTER YOU ARE FINISHED PLAYING. REVIEW AND DISCUSS THE ROLE OF POLLINATORS

## MATERIALS:

- PAPER CUT OUT FLOWERS
- ART SUPPLIES FOR DECORATION- MARKERS, CRAYONS, STICKERS, ETC
- POM POM BALLS OR ANY OTHER SMALL YELLOW BALLS TO REPRESENT POLLEN
- CONTAINERS FOR EACH FLOWER- EITHER BUCKETS, BOWLS, ETC.

## REFERENCES:

- [HTTPS://WWW.POLLINATOR.ORG/PO LLINATION](https://www.pollinator.org/pollination)
- [HTTPS://ENTO.PSU.EDU/POLLINATORS/RESOURCES-AND-OUTREACH/WHAT-ARE-POLLINATORS-AND-WHY-DO-WE-NEED-THEM](https://ento.psu.edu/pollinators/resources-and-outreach/what-are-pollinators-and-why-do-we-need-them)

## FOLLOW UP:

- GET OUTSIDE AND VIEW POLLINATORS IN ACTION! COUNT HOW MANY TYPES OF POLLINATORS YOU CAN FIND. OBSERVE POLLEN UP CLOSE (BE CAREFUL IF YOU HAVE ALLERGIES!)



## INTRODUCTION:

- POLLINATORS SERVE A VITAL ROLE IN OUR EVERYDAY LIVES. WITHOUT POLLINATORS, THE PLANTS AROUND US WOULD NOT BE ABLE TO PRODUCE FRUIT. THIS DOESN'T JUST MEAN THE FRUIT THAT WE EAT BUT ALSO THE FRUIT OF THE PLANT! NAME SOME EXAMPLES OF "FRUITS" THAT COME FROM PLANTS.  
\*EXAMPLES: COTTON, COCOA BEANS, ZUCCHINI, MELONS, AND MANY MORE!
- POLLINATORS TAKE THE SMALL, YELLOW POLLEN GRANULES FROM ONE FLOWER AND TAKE IT TO ANOTHER FLOWER TO POLLINATE IT. MOST PLANTS REQUIRE POLLINATION TO LIVE OUT THEIR LIFE CYCLE. WHEN PLANTS ARE POLLINATED THEY ARE ABLE TO GROW FRUIT OR SEEDS THAT HELP THEM CREATE MORE PLANTS IN THE FUTURE. IF WE DIDN'T HAVE POLLINATORS, WE WOULD HAVE TO POLLINATE ALL OF THE PLANTS ALL OVER THE WORLD OURSELVES- IT WOULD BE IMPOSSIBLE!
- CHECK OUT THIS VIDEO ON HOW TO PROTECT OUR POLLINATORS FROM UGA EXTENSION [HTTPS://YOUTU.BE/CYRRKZ0L0LG](https://youtu.be/cyrrkz0l0lg)

## MATERIAL PREP:

- TODAY YOU ARE GOING TO SEE WHAT IT REALLY FEELS LIKE TO *BE* A POLLINATOR! THIS ACTIVITY REQUIRES SOME OPEN SPACE SO FIND AN AREA THAT IS SUITABLE FOR POLLINATION.
- [CREATE THE FLOWERS](#) USING THE FLOWER DESIGN ATTACHED- OR MAKE YOUR OWN- DECORATE AND CUT OUT YOUR POLLINATOR FLOWERS.
- [SET UP THE RELAY RACE](#) GATHER YOUR BUCKETS/CONTAINERS TO CATCH YOUR POLLEN. EITHER PUT THE FLOWERS ON THE OUTSIDE OF THE CONTAINER OR ON TOP BUT LEAVE ROOM FOR THE "POLLEN" TO BE PUT IN AND TAKEN OUT OF THE BUCKET. ESTABLISH A "FLIGHT PLAN" FOR YOUR POLLINATORS TO FOLLOW.
  - PLACE YOUR FLOWER BUCKETS ALL AROUND THE SPACE YOU WILL BE USING. THIS IS A GREAT TIME TO GET OUTSIDE!
  - SPREAD YOUR "POLLEN" - ANY YELLOW OBJECT WILL DO (POM POM BALLS, SMALL BAGS OF YELLOW PAPER CRUMBLED UP)-AROUND IN VARIOUS FLOWER BUCKETS. MAKE SURE EVERY BUCKET HAS AT LEAST 1 POLLEN GRAIN IN IT.

## ACTIVITY:

- EXPLAIN YOU ARE NOW POLLINATORS. YOUR MISSION IS TO FOLLOW THE FLIGHT PATTERN TO EACH FLOWER BUCKET AND EITHER PICK UP AND/OR DROP OFF THE POLLEN THAT THEY FIND AT EACH FLOWER. THEY MUST VISIT AND POLLINATE ALL FLOWERS BEFORE THEY ARE DONE. IF YOU HAVE MULTIPLE STUDENTS, SET THIS UP INTO A RELAY RACE! YOU CAN TIME THE STUDENTS TO SEE WHO CAN (CORRECTLY) POLLINATE EACH FLOWER THE FASTEST. BE SURE TO TELL IN WHAT ORDER THEY MUST POLLINATE THE FLOWERS. ESTABLISH AN AREA AS THE START AND FINISH.
- RULES WHEN YOU SAY GO THE STUDENTS MUST GO TO THE FIRST FLOWER, PICK UP POLLEN AND RUN TO THE 2ND FLOWER. THEY WILL THEN DROP THE OLD POLLEN FROM FLOWER 1 AND PICK UP THE NEW POLLEN. THIS WILL CONTINUE UNTIL THEY REACH THE END WHEN THEY WILL BRING THE FINAL POLLEN GRAINS BACK TO FLOWER #1 AS ITS POLLEN WAS TAKEN BUT IT WAS NOT POLLINATED YET. THEY ARE FINISHED WHEN THEY RETURN TO THE FINISH LINE.
- EITHER THE FASTEST POLLINATOR OR TEAM WINS!



## **ADD ONS:**

THIS LESSON CAN BE ADAPTED IN A MULTITUDE OF WAYS. IT CAN BE USED IN A CLASSROOM OF 20+ STUDENTS AS A RELAY RACE WHERE STUDENTS ARE IN TEAMS. TEAM MEMBERS ARE STATIONED AT EACH FLOWER AND THEY ACCEPT THE NEW POLLEN, PLACE IN THEIR FLOWER AND THEN TAKE THEIR POLLEN TO THE NEXT STATION-- ONWARD TO FINISH TO THE LAST FLOWER.

IN SMALLER GROUPS, THIS CAN BE ADAPTED TO A TIMED RACE WHERE THE POLLEN BUCKETS ARE RESET IN BETWEEN THE STUDENT'S RACES. OR IF YOU HAVE ENOUGH MATERIALS THE STUDENTS CAN RACE SIMULTANEOUSLY WITH THEIR OWN SET OF FLOWER BUCKETS AND POLLEN GRAINS TO COLLECT.

OTHER ADDITIONAL VARIATIONS INCLUDE:

- YOUR STUDENTS CAN DECORATE AND CREATE THEIR OWN POLLINATOR COSTUMES (WINGS, ANTENNAS, ETC) AS WELL.
- ENCOURAGE THE STUDENTS TO ACT OUT THEIR POLLINATOR BY BUZZING LIKE A BEE OR LET THE STUDENTS PICK THE POLLINATOR THEY WANT TO BE AND CREATE THEIR OWN STORY FOR THE RELAY RACE.

## **EXTRA:**

THE [GEORGIA ASSOCIATION OF CONSERVATION DISTRICTS \(GACD\)](http://www.gacd.us) PARTNERS WITH LOCAL SOIL AND WATER CONSERVATION DISTRICTS TO PROVIDE EDUCATION ON KEEPING OUR POLLINATORS HEALTHY AND PROTECTED.

FOR MORE INFORMATION ON GACD AND TO FIND YOUR GEORGIA CONSERVATION DISTRICT PLEASE VISIT: [WWW.GACD.US](http://www.gacd.us)

FOR MORE LESSON PLANS VISIT: [WWW.GACD.US/LESSONPLANS](http://www.gacd.us/lessonplans)

## **FLOWER CUT OUTS:**

USE THE FLOWER STENCILS ON THE FOLLOWING PAGES TO CUT OUT AND DECORATE YOUR OWN FLOWERS OR DRAW AND COLOR YOUR OWN! GET CREATIVE!





