BUTTERFLY LIFE CYCLE

LEVEL: K-2ND
ADAPTED FROM A LESSON ON PINTEREST

https://snapguide.com/guides/make-a-model-of-a-butterfly-life-cycle/



GEORGIA LESSON STANDARD:

- S2L1. OBTAIN, EVALUATE, AND COMMUNICATE INFORMATION ABOUT THE LIFE CYCLES OF DIFFERENT LIVING ORGANISMS.
 - ASK QUESTIONS TO DETERMINE THE SEQUENCE OF THE LIFE CYCLE OF COMMON ANIMALS IN YOUR AREA: A MAMMAL SUCH AS A CAT, DOG OR CLASSROOM PET, A BIRD SUCH AS A CHICKEN, AN AMPHIBIAN SUCH AS A FROG, AND AN INSECT SUCH AS A BUTTERFLY.

OBJECTIVES:

 STUDENTS WILL MAKE THEIR OWN DISPLAY OF A BUTTERFLY LIFE CYCLE USING WHAT THEY HAVE AT HOME

SUBJECT MATTER:

- ENVIRONMENTAL SCIENCE
- LIFE CYCLES OF PLANTS AND ANIMALS
- ARTS AND CRAFTS

SUMMARY OF TASKS/ACTION:

- STEP 1: PROVIDE AN OVERVIEW OF POLLINATION AND WHY POLLINATORS ARE IMPORTANT
- STEP 2: DETAIL THE AMAZING LIFE CYCLE OF A BUTTERFLY AND HOW EACH STAGE IS DIFFERENT
- STEP 3: USING THE LESSON GUIDE AND YOUR STUDENT'S CREATIVITY, TRY TO FIND HOUSEHOLD ITEMS THAT YOU CAN USE TO REPRESENT THE DIFFERENT STAGES OF A BUTTERFLY LIFE CYCLE
- <u>STEP 4:</u> CREATE A BUTTERFLY LIFE CYCLE DISPLAY WITH YOUR FINDINGS!
- <u>STEP 5:</u>REVIEW AND DISCUSS THE IMPORTANCE OF POLLINATORS.



MATERIALS:

CRAFT SUPPLIES, COLORING ITEMS, PAPER, SCISSORS AND EXAMPLES FOR EACH LIFE STAGE. SEE ACTIVITY FOR MORE DETAIL:

- EGG: SMALL, ROUND AND EITHER WHITE OR YELLOW IN COLOR
- CATERPILLAR: LONG AND SKINNY, POSSIBLE FURRY OR TEXTURED
- CHRYSALIS: SMOOTH,
- BUTTERFLY: COLORFUL, TWO WINGS

REFERENCES:

- HTTPS://WWW.NATGEOKIDS.COM/Z A/DISCOVER/ANIMALS/INSECTS/BUT TERFLY-LIFE-CYCLE/
- HTTPS://ANSP.ORG/EXHIBITS/ONLIN E-
 - EXHIBITS/BUTTERFLIES/LIFECYCLE/
- <u>HTTPS://YOUTU.BE/CYRRKZOLOLG</u>



INTRODUCTION:

INTRODUCE AND DISCUSS THE FOLLOWING WITH YOUR STUDENTS. PAUSE AFTER EACH QUESTION AND ENGAGE WITH YOUR STUDENT ON WHAT THEY MAY ALREADY KNOW ABOUT POLLINATORS AND BUTTERFLIES.

POLLINATORS ARE ALL AROUND US, BUT DO WE REALLY UNDERSTAND HOW THEY LIVE? WATCH THIS VIDEO CREATED BY UGA EXTENSION:

HTTPS://YOUTU.BE/CYRRKZOLOLG TO OBSERVE POLLINATORS UP CLOSE.

• AS YOU CAN SEE, POLLINATORS ARE EXTREMELY IMPORTANT IN CREATING FOOD AND PRODUCTS THAT WE USE IN OUR EVERYDAY LIVES. TODAY WE WILL BE TAKING A CLOSER LOOK AT ONE SPECIFIC TYPE OF POLLINATOR- THE BUTTERFLY!

LET'S TALK ABOUT BUTTERFLY LIFE CYCLES. DO YOU KNOW HOW A BUTTERFLY IS BORN? HOW THEY GROW? EVER SEEN A CATERPILLAR? HOW DO THEY BECOME BUTTERFLIES? IN THE HUMAN LIFE CYCLE WE ARE BORN AS BABIES AND GROW UP INTO ADULTS, HOWEVER BUTTERFLIES HAVE A VERY DIFFERENT LIFE CYCLE. TODAY WE WILL LEARN HOW BUTTERFLIES UNDERGO A VERY SPECIAL PROCESS CALLED: *METAMORPHOSIS*.

- METAMORPHOSIS IS THE PROCESS IN WHICH SOMETHING IS CHANGES ITS SHAPE AND TRANSFORMS INTO SOMETHING NEW. <u>WATCH METAMORPHOSIS</u> OF A MONARCH IN DETAIL AND DISCUSS THE STEP WITH YOUR STUDENT.
 - BUTTERFLIES ARE BORN FROM LITTLE TINY EGGS. THESE EGGS ARE LAID ON PLANTS AND ARE SO TEENY, TINY YOU CAN HARDLY SEE THEM.
 - FROM THOSE EGGS HATCH A CATERPILLAR. THESE CATERPILLARS EAT AND EAT AND EAT. THEY GROW UNTIL THEY ARE READY TO UNDERGO METAMORPHOSIS.
 - CATERPILLARS HANG UPSIDE DOWN AND FORM A CHRYSALIS. THIS HAS THE SAME GENERAL SHAPE OF A CATERPILLAR BUT IT USUALLY SMOOTH, SHINY AND HAS A OUTER COATING TO PROTECT THE BUTTERFLY THAT IS GROWING INSIDE.



AFTER SOME TIME IN THE CHRYSALIS THE BUTTERFLY WILL EMERGE! THEY
LOOK ENTIRELY DIFFERENT FROM THEIR PREVIOUS LIFE AS A CATERPILLAR
BUT THEY ARE THE SAME CREATURE- JUST TRANSFORMED!

ACTIVITY AND MATERIAL PREP:

LET'S MAKE OUR OWN REPRESENTATION OF A BUTTERFLY LIFE CYCLE. CAN YOU FIND ITEMS THAT COULD MODEL THE BUTTERFLY LIFE CYCLE AROUND YOUR HOUSE? YOU CAN USE CRAFT SUPPLIES, PAPER TO DRAW AND MAKE YOUR OWN EXAMPLES OR EVEN FOOD ITEMS TO PRESENT EACH STAGE OF THE BUTTERFLY TRANSFORMATION. IF YOU HAVE YOUNGER STUDENTS IT MIGHT BE EASIER TO GIVE THEM PRESELECTED OPTIONS TO CHOOSE FROM.

*NOTE: THERE ARE GREAT EXAMPLES ON PINTEREST OF MAKING A PASTA THEMED BUTTERFLY LIFE CYCLE IF YOU HAVE MULTIPLE TYPES OF PASTA ON HAND.

EXAMPLES INCLUDE:

- EGG: POPCORN KERNELS, SMALL DRIED BEANS OR PEAS, SMALL POMPOM BALLS, PIECES OF GLITTER OR SPRINKLES ON A DOT OF GLUE
- CATERPILLAR: SPIRAL PASTA, PIPE CLEANERS WRAPPED UP, POM POMS GLUED IN A LINE
- CHRYSALIS: SMOOTH ROUND PASTA SHELLS, BUNCHED UP PAPER WRAPPED IN CELLOPHANE WRAP (CLEAR, SHINY OUTSIDE)
- BUTTERFLY: DRAW AND CUT OUT YOUR OWN!, BUTTERFLY SHAPED PASTA



ACTIVITY:

- ONCE YOU HAVE ALL OF YOUR MATERIALS GATHERED, PUT YOUR BUTTERFLY LIFE CYCLE IN ORDER AND GLUE IT DOWN TO A PIECE OF PAPER. LABEL EACH STAGE IN THE PROCESS: EGG, CATERPILLAR, CHRYSALLIS, AND BUTTERFLY.
- USING CRAYONS OR COLOR PENCILS/MARKERS, COLOR AROUND YOUR LIFE STAGES WITH BACKGROUND PICTURES. REMEMBER, EGGS ARE LAID ON PLANT PARTS LIKE THE LEAVES AND THE STEMS. CATERPILLARS LOVE TO EAT! THEY EAT LOTS OF PLANT LEAVES. CHRYSALISES ARE FORMED HANGING OFF OF BRANCHES OR OTHER LIFTED AREAS BUTTERFLIES LOVE TO LAND ON FLOWERS. TO DRINK THE NECTAR AND THEY CAPTURE POLLEN ON THEIR WINGS AND LEGS WHILE THEY DO THAT. THIS POLLEN IS THEN TAKEN TO OTHER PLANTS AND POLLINATION TAKES PLACE!

 SHOW OFF YOUR BUTTERFLY LIFE CYCLE AND CHALLENGE YOUR STUDENT TO NAME EACH STAGE IN THE PROCESS. ASK QUESTIONS TO TEST THEIR





EXTRA:

SEND US A PHOTO OF YOUR BUTTERFLY LIFE CYCLE REPRESENTATION! YOU CAN EMAIL YOUR PHOTOS AT INFO@GACD.US TO HAVE YOUR WORK FEATURED ON OUR SOCIAL MEDIA PAGES. USE #GACDCONSERVE TO SHARE!

THE GEORGIA ASSOCIATION OF CONSERVATION DISTRICTS (GACD) PARTNERS WITH LOCAL SOIL AND WATER CONSERVATION DISTRICTS TO PROVIDE EDUCATION ON KEEPING OUR ENVIRONMENT CLEAN AND HEALTHY AND OUR POLLINATORS PROTECTED.

FOR MORE INFORMATION ON GACD AND TO FIND YOUR GEORGIA CONSERVATION DISTRICT PLEASE VISIT: WWW.GACD.US

FOR MORE LESSON PLANS VISIT: WWW.GACD.US/LESSONPLANS