

WEEK 20: CONSERVATION EFFORTS



DAY ONE

TODAY, YOU AND YOUR CHILD WILL:

- 1. READ THE TEXT**
 - 2. REVIEW THE TEXT WITH YOUR CHILD**
 - 3. COMPLETE THE STUDENT WORKSHEETS**
 - 4. FIND THE MATERIALS YOU WILL NEED FOR DAYS TWO AND THREE**
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DURING YOUR REVIEW, THE FOLLOWING LIST WILL GIVE YOU THE MOST IMPORTANT PARTS OF YOUR CHILD'S READING FOR THIS WEEK.

ALL ORGANISMS CAUSE CHANGES IN THE ENVIRONMENT WHERE THEY LIVE. SOME OF THESE CHANGES ARE DETRIMENTAL TO THE ORGANISM OR OTHER ORGANISMS, WHEREAS OTHERS ARE BENEFICIAL.

HUMANS DEPEND ON THEIR NATURAL AND CONSTRUCTED ENVIRONMENTS. HUMANS CHANGE ENVIRONMENTS IN WAYS THAT CAN BE EITHER BENEFICIAL OR DETRIMENTAL FOR THEMSELVES AND OTHER ORGANISMS.

INDIVIDUALS WHO WORK IN THE FIELD OF CONSERVATION TRY TO HELP PRESERVE OUR NATURAL RESOURCES THROUGH THEIR INVOLVEMENT WITH: HUNTING/FISHING PROGRAMS, RESTORING DAMAGED HABITATS, EDUCATING PEOPLE ABOUT GOOD USE OF THEIR LAND AND RELEASING ORGANISMS INTO THE ENVIRONMENT.

DEFINITIONS:

CONSERVATION	THE PROTECTION AND CAREFUL USE OF RESOURCES AND THE ENVIRONMENT
REINTRODUCTION	RELOCATING ORGANISMS BACK INTO THEIR HABITATS

SAMPLE QUESTIONS TO ASK AFTER YOUR CHILD FINISHES THEIR READING FOR DAY ONE:

WHAT IS ONE SIMPLE THING YOU CAN DO TO HELP YOU AND OTHERS FROM GETTING SICK?

WASH YOUR HANDS!!!

SHOULD HUNTERS BE ALLOWED TO KILL MORE ANIMALS THAN ARE BEING BORN EACH YEAR?

NO. CONSERVATION AGENTS TRY TO LIMIT HUNTERS FROM ONLY KILLING A SMALL PORTION OF THE ANIMALS EVERY YEAR. IN ADDITION, THE NUMBER OF ANIMALS TAKEN BY HUNTING SHOULD NEVER BE LARGER THAN THE NUMBER OF ANIMALS BEING BORN!

WHAT IS IT CALLED TO RELOCATE ORGANISMS BACK INTO THEIR HABITATS?

REINTRODUCTION

ANSWERS TO WORKSHEET QUESTIONS FOR WEEK 20:

PAGE ONE:

REINTRODUCTION MEANS RELOCATING ORGANISMS BACK INTO THEIR HABITATS.

PAGE TWO:

1. B
2. A
3. B
4. C
5. B
6. A

UNIT FIVE REVIEW ANSWER KEY

FIND THE PRODUCERS, HERBIVORES, CARNIVORES, PREY AND CONSUMERS IN THE PICTURE. LIST THEM BELOW.

<i>PRODUCERS</i>	<i>HERBIVORES</i>	<i>CARNIVORES</i>	<i>PREY</i>	<i>CONSUMERS</i>
<i>GRASS</i>	<i>GRASSHOPPER</i>	<i>SNAKE</i>	<i>GRASSHOPPER</i>	<i>GRASSHOPPER</i>
		<i>BIRD</i>	<i>SNAKE</i>	<i>SNAKE</i>
				<i>BIRD</i>

IS THIS PICTURE SHOWING YOU A FOOD CHAIN OR A FOOD WEB?

THIS IS A PICTURE OF A FOOD CHAIN.

WHAT IS THE DIFFERENCE BETWEEN A FOOD CHAIN AND A FOOD WEB?

A FOOD WEB IS A COLLECTION OF TWO OR MORE FOOD CHAINS PUT TOGETHER.

BE CERTAIN TO GO OVER YOUR DEFINITIONS FOR THE TEST!!!

DAY TWO

TODAY, YOU AND YOUR CHILD WILL:

- 1. REVIEW DAY ONE USING THE FOLLOWING TEXT**
 - 2. RUN THE ACTIVITY: "THE PURPLE CHICKENS OF NOOKA NOOKA ISLAND"**
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THE FOLLOWING LIST WILL GIVE YOU THE MOST IMPORTANT ITEMS TO REVIEW FOR YOUR ACTIVITY TODAY!

LARGE LISTS OF ENDANGERED ORGANISMS EXIST AND ARE CURRENTLY BEING MONITORED WHILE UNDER PROTECTION FROM THE LAW.

SEVERAL ORGANIZATIONS EXIST THAT ATTEMPT TO SOLICIT ASSISTANCE TO PROTECT CERTAIN INDIVIDUAL SPECIES.

INDIVIDUALS CAN ACT LOCALLY TO PROTECT ORGANISMS THAT MAY NOT BE FOUND IN THEIR IMMEDIATE HABITAT.

THE PURPLE CHICKENS OF NOOKA NOOKA ISLAND

THIS LIGHTEARTED ACTIVITY WILL ALLOW THE CHILD TO CREATE A VISUAL STORY ABOUT A MADE-UP ENDANGERED SPECIES.

MATERIALS:

STORY CARDS (SEE ATTACHED)

PAPER

PENCILS/PENS/CRAYONS/MARKERS

ACTIVITY:

EXPLAIN TO THE CHILD THAT SOMETIMES A SPECIES IN THE UNITED STATES GETS IN DANGER OF BECOMING EXTINCT. WHEN SCIENTISTS DECIDE THAT A PLANT OR ANIMAL IS IN DANGER OF THIS HAPPENING, THEY SPEAK WITH A PART OF THE US GOVERNMENT CALLED THE U.S. FISH AND WILDLIFE SERVICES.

IF THE GOVERNMENT BELIEVES WHAT THE SCIENTISTS HAVE TO SAY ABOUT THIS PLANT OR ANIMAL, THE ORGANISM IS PUT ON THE ENDANGERED SPECIES LIST. THIS MEANS THAT NOBODY CAN HURT OR DESTROY THE ORGANISM OR ITS HABITAT!

THANKS TO THE ENDANGERED SPECIES ACT, ANIMALS LIKE THE BALD EAGLE HAVE GROWN FROM A FEW ORGANISMS TO SEVERAL THOUSANDS OF EAGLES!

IN TODAY'S ACTIVITY, THE CHILD WILL BE DRAWING A PICTURE ABOUT A MADE-UP ENDANGERED SPECIES.

YOU OR YOUR CHILD CAN READ THE STORY CARDS AT THIS TIME. THE CHILD IS TO DRAW ONE PICTURE FOR EACH CARD.

PART ONE: HERE'S THE STORY...

YOU AND YOUR FRIENDS ARE ON A BOAT IN A HUGE LAKE WHILE YOU ARE ON VACATION. A STORM IS COMING IN VERY FAST AND YOU DO NOT THINK YOU HAVE ENOUGH TIME TO MAKE IT BACK TO SHORE. LUCKILY, THERE IS A SMALL ISLAND NEARBY. YOU DECIDE TO TAKE YOUR BOAT TO THE ISLAND AND WAIT UNTIL THE STORM PASSES OVER YOU.

DRAW A PICTURE OF THE STORM AND THE ISLAND

PART TWO: HERE'S THE STORY...

ALL OF YOU FIND A SMALL CAVE THAT KEEPS YOU DRY AND SAFE DURING THE STORM. ONCE THE RAIN STOPS FALLING, YOU DECIDE TO EXPLORE THIS ISLAND. THERE ARE NO PEOPLE LIVING ON THIS ISLAND, BUT THERE ARE A LOT OF PLANTS, BUGS AND BIRDS. SUDDENLY, YOU HEAR A LOUD NOISE COMING FROM A LARGE BUSH NEARBY. YOU RUN OVER TO SEE WHAT IT COULD BE...

DRAW A PICTURE OF THE CAVE AND THE ORGANISMS YOU SEE

PART THREE: HERE'S THE STORY...

TO YOUR SURPRISE, IT IS A FLYING PURPLE CHICKEN! IT LOOKS LIKE A NORMAL CHICKEN EXCEPT FOR A COUPLE OF THINGS. FIRST, IT HAS MUCH LARGER WINGS THAT HELPS IT FLY FROM TREE TO TREE! AND, ALL OF ITS FEATHERS ARE PURPLE IN COLOR. YOU QUICKLY MAKE A DRAWING OF THE CHICKEN AND DESCRIBE IT. THE CHICKEN FLIES OFF AND YOU ALL HEAD BACK TO YOUR BOAT.

DRAW A PICTURE OF THE FLYING PURPLE CHICKEN

PART FOUR: HERE'S THE STORY...

YOU SHOW YOUR DRAWING AND YOUR DESCRIPTION OF THE FLYING PURPLE CHICKEN TO THE FAMOUS SCIENTIST DR. I.M. SMART. SHE IS VERY EXCITED ABOUT YOUR DISCOVERY BECAUSE YOU HAVE FOUND THE FAMOUS "PURPLE CHICKEN OF NOOKA NOOKA ISLAND." THIS BIRD WAS THOUGHT TO BE EXTINCT FOR MANY YEARS. DR. SMART TRAVELS TO THE ISLAND WHERE SHE SEES 12 MORE PURPLE CHICKENS. SHE CAPTURES ONE FOR STUDY. YOU BEGIN A CLUB CALLED THE "FRIENDS OF THE FLYING PURPLE CHICKEN" AND EVERYONE IN TOWN JOINS. THE LOCAL TELEVISION NEWS SHOWS UP AND PUTS ALL OF YOU ON TV.

DESIGN A POSTER FOR THE FRIENDS OF THE FLYING PURPLE CHICKEN

PART FIVE: HERE'S THE STORY...

SINCE EVERYONE KNOWS ABOUT THE FLYING PURPLE CHICKEN, THEY ALL WANT A CHANCE TO SEE THIS ORGANISM ON NOOKA NOOKA ISLAND. THOUSANDS OF PEOPLE START TRAVELING TO THE ISLAND. YOU AND DR. SMART ARE WORRIED THAT ALL THESE PEOPLE MAY DESTROY THE CHICKEN'S HABITAT. RESTAURANTS AND TOUR GROUPS ARE STARTING TO OPEN UP ALL OVER THE ISLAND AND TOUR BOATS TAKE PEOPLE BACK AND FORTH 10 TIMES A DAY. THIS MANY PEOPLE ON A SMALL ISLAND CAN CAUSE SOME PROBLEMS!

DRAW A PICTURE OF THE NEW STUFF FOR SALE ON THE ISLAND

PART SIX: HERE'S THE STORY...

DR. SMART INVITES YOU TO SPEAK WITH THE U.S. FISH AND WILDLIFE SERVICES. YOU AND DR. SMART TELL THE PEOPLE THAT THE PURPLE CHICKENS OF NOOKA NOOKA ISLAND ARE IN DANGER OF BEING EXTINCT. YOU ASK FOR THIS ORGANISM TO BE PLACED ON THE ENDANGERED SPECIES LIST. AFTER A FEW DAYS, THEY AGREE AND THE CHICKENS ARE PLACED ON THE LIST!

SINCE THE CHICKENS ARE PROTECTED UNDER THE LAW, THE ONLY PEOPLE WHO NOW LIVE ON THE ISLAND ARE SCIENTISTS. THE RESTAURANTS HAVE BEEN CLOSED AND ONLY ONE BOAT A DAY GOES BACK AND FORTH TO THE ISLAND. VISITORS WHO COME TO THE ISLAND TAKE TOURS LED BY SCIENTISTS, BUT THEY CAN ONLY TAKE PICTURES DURING THEIR VISIT.

BECAUSE OF YOUR EFFORT, HAPPY PURPLE CHICKENS FLY ALL OVER NOOKA NOOKA ISLAND.

DRAW A PICTURE OF LIFE ON NOOKA NOOKA ISLAND

DAY THREE

TODAY, YOU AND YOUR CHILD WILL:

- 1. REVIEW DAY ONE USING THE FOLLOWING TEXT**
- 2. RUN THE ACTIVITY: "A MAMMOTH PROBLEM"**

THE FOLLOWING LIST WILL GIVE YOU THE MOST IMPORTANT ITEMS TO REVIEW FOR YOUR ACTIVITY TODAY!

THE NATURAL TRIALS OF SURVIVAL AFFECT THE POPULATION OF ANY SPECIES.

THIS SIMULATION IDENTIFIES THE FACT THAT DESPITE THERE BEING A FEW WAYS TO REMAIN ALIVE WITHIN A HABITAT, THERE ARE MANY MORE WAYS FOR ONE NOT TO SURVIVE OR TO INCREASE THE SIZE OF THE POPULATION

ESP ACTIVITY: A MAMMOTH PROBLEM

STUDENTS WILL SIMULATE THE LIFESPAN OF A HERD OF WOOLY MAMMOTHS.

MATERIALS:

PENCIL

TYPING/NOTEBOOK PAPER

20 SMALL OBJECTS (I.E. BUTTONS, BEANS, COINS, ETC...)

MAMMOTH CARDS (SEE ATTACHED)

ACTIVITY:

YOU WILL BEGIN THIS ACTIVITY WITH AN IMAGINARY 20 MAMMOTHS IN YOUR HERD.

SHUFFLE THE CARDS AND PLACE THEM FACE DOWN ON THE TABLE. THE STUDENT WILL CHOOSE ONE CARD AND READ THE ACTION TO BE TAKEN. THREE CHOICES EXIST ON THE CARDS: ONE MAMMOTH MAY PERISH, GIVE BIRTH OR SURVIVE FOR ONE YEAR. IN ANY CASE, THE STUDENT WILL NEED TO SUBTRACT ONE MAMMOTH, ADD ONE MAMMOTH OR KEEP THE NUMBER OF MAMMOTHS WITHIN THE HERD THE SAME, RESPECTIVELY.

REPLACE THE CARD, SHUFFLE AND REPEAT THIS PROCEDURE FOR A TOTAL OF FIVE TURNS (YEARS), RECORDING THE NUMBER OF MAMMOTHS THAT REMAIN WITHIN THE HERD.

INCREASE THE NUMBER OF TURNS (YEARS) FOR EXPERIMENTATION.

EXPLANATION:

ALTHOUGH NO DEFINITE ANSWER EXISTS TO EXPLAIN THE DEMISE OF THE WOOLY MAMMOTH, SEVERAL FACTORS MAY HAVE PLAYED A PART. THIS SIMULATION IS INTENDED TO PROVIDE AN OVERLY SIMPLISTIC LIFESPAN TO A HERD OF ANIMALS UNDERGOING NATURAL TRIALS OF SURVIVAL. THE ODDS ARE STACKED AGAINST THE MAMMOTH, WITH A MAJORITY OF THE CARDS INDICATING THEIR DEMISE, TWO CARDS WHICH SUSTAIN THE HERD'S NUMBERS AND ONE INCREASING THE POPULATION OF THE HERD.

INDEPENDENT VARIABLE: NUMBER OF YEARS

DEPENDENT VARIABLE: NUMBER OF MAMMOTHS

HYPOTHESIS:

IF THE NUMBER OF YEARS IS (INCREASED/DECREASED), THEN THE NUMBER OF MAMMOTHS WILL (INCREASE/DECREASE).

MAMMOTH CARDS

CUT THEM OUT!!!

STARVATION

SUBTRACT ONE MAMMOTH

BABY CALF BORN

ADD ONE MAMMOTH

KILLED BY ANIMALS

SUBTRACT ONE MAMMOTH

**DEATH BY NATURAL
CAUSES**

SUBTRACT ONE MAMMOTH

**MAMMOTH
SURVIVES THE YEAR**

HERD REMAINS THE SAME

**MAMMOTH
SURVIVES THE YEAR**

HERD REMAINS THE SAME

UNIT FIVE TEST

MATCH THE WORDS IN THE FIRST COLUMN TO THE BEST AVAILABLE ANSWER IN THE SECOND COLUMN.

—	PRODUCERS	1. A SICKNESS
—	HERBIVORES	2. THE PROTECTION AND CAREFUL USE OF RESOURCES AND THE ENVIRONMENT
—	CONSERVATION	3. A RELATIONSHIP BETWEEN SPECIES THAT USE EACH OTHER FOR FOOD
—	POPULATION DENSITY	4. A TIME WHEN LOTS OF PEOPLE GO HUNGRY AND DON'T HAVE ENOUGH FOOD TO EAT
—	FOOD CHAIN	5. RELOCATING ORGANISMS BACK INTO THEIR HABITAT
—	CARRYING CAPACITY	6. ANIMALS THAT GET ALL OF THEIR NUTRIENTS BY EATING (OR CONSUMING) OTHER ORGANISMS
—	PREY	7. THESE ANIMALS ONLY EAT PLANTS TO GET THEIR NUTRIENTS
—	CONSUMERS	8. AUTOTROPHIC ORGANISMS THAT PRODUCE THEIR OWN FOOD
—	FAMINE	9. A BALANCE OF PREDATORS AND PREY IN A HABITAT
—	FOOD WEB	10. A SCIENTIFIC WAY OF SAYING "THE NUMBER OF INDIVIDUALS OF A SPECIES IN A CERTAIN AREA"
—	REINTRODUCTION	11. ANIMALS THAT ARE EATEN BY PREDATORS
—	DISEASE	12. A GROUP OF FOOD CHAINS LINKED TOGETHER

WHICH ONE IS RIGHT? CIRCLE THE CORRECT ANSWER.

1. IN A FOOD CHAIN, THE OMNIVORES...

- A. EAT PLANTS FOR THEIR NUTRIENTS
- B. EAT ANIMALS FOR THEIR NUTRIENTS
- C. EAT BOTH PLANTS AND ANIMALS FOR THEIR NUTRIENTS

2. FOOD WEBS ARE DIFFERENT FROM FOOD CHAINS BECAUSE:

- A. A GROUP OF FOOD CHAINS MAKE UP ONE FOOD WEB
- B. A GROUP OF FOOD WEBS MAKE UP ONE FOOD CHAIN
- C. FOOD WEBS ARE TOO SIMPLE

3. FOOD WEBS CAN BE FOUND IN:

- A. TUNDRA AND DESERTS
- B. ALL BIOMES
- C. FORESTS AND GRASSLANDS

4. IF THE POPULATION DENSITY OF AN ORGANISM GETS BIGGER...

- A. THE RESOURCES IN THE HABITAT WILL GO DOWN
- B. THE RESOURCES IN THE HABITAT WILL GO UP
- C. THE RESOURCES IN THE HABITAT WILL STAY THE SAME

5. DISEASE CAN BE SPREAD BY...

- A. VIRUSES
- B. BACTERIA
- C. BACTERIA AND VIRUSES

6. CARRYING CAPACITY IS STUDIED BY PEOPLE WHO WORK IN...

- A. BIODIVERSITY
- B. CONSERVATION
- C. REINTRODUCTION

UNIT FIVE TEST ANSWER KEY

MATCHING

- 8 PRODUCERS
- 7 HERBIVORES
- 2 CONSERVATION
- 10 POPULATION DENSITY
- 3 FOOD CHAIN
- 9 CARRYING CAPACITY
- 11 PREY
- 6 CONSUMERS
- 4 FAMINE
- 12 FOOD WEB
- 5 REINTRODUCTION
- 1 DISEASE

MULTIPLE CHOICE

- 1. C
- 2. A
- 3. B
- 4. A
- 5. C
- 6. B

WRITE A STORY...

ANSWERS WILL VARY. HOWEVER, THE CHILD MUST USE THE WORDS PRODUCERS, CONSUMERS, HERBIVORES AND PREY WITHIN THEIR DESCRIPTION OF THEIR FOOD WEB.