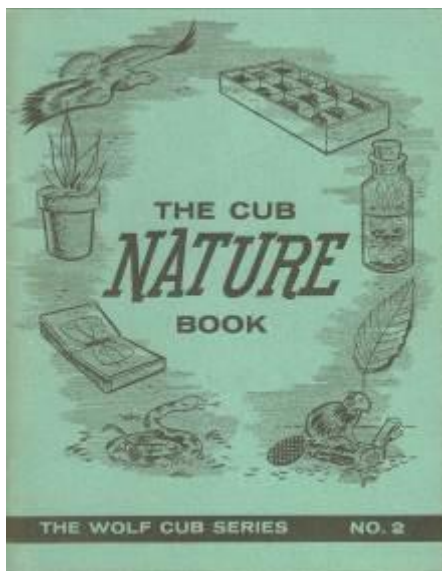


The Cub Nature Book



The Wolf Cub Series No. 2

NATURE IS FUN

Exploring nature is an exciting, adventurous journey into the wide world of plants, animals, birds, rocks, stars – all the things around us everyday.

You'll find lots of interesting things to do and make in this book. You'll find they will help you in your Cub work too.

Good Hunting.

Published by
The Canadian General Council
of The Boy Scouts Association

The Cub Nature Book

Downloaded from:
“The Dump” at Scoutscan.com
<http://www.thedump.scoutscan.com/>



Editor's Note:

The reader is reminded that these texts have been written a long time ago. Consequently, they may use some terms or express sentiments which were current at the time, regardless of what we may think of them at the beginning of the 21st century. For reasons of historical accuracy they have been preserved in their original form.

If you find them offensive, we ask you to please delete this file from your system.

This and other traditional Scouting texts may be downloaded from The Dump.

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How A Tree Grows
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The Beaver
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Lightning Do's and Don'ts
Landscaper

GET SET

for collecting

THE AMOUNT OF EQUIPMENT YOU
NEED DOESN'T HAVE TO BE EITHER
EXCESSIVE OR EXTENSIVE BUT
THESE ARE A FEW ITEMS THAT HELP.

EVERY CAMPER SHOULD
OWN A COMPASS



YOU'LL FIND THAT
A MAGNIFYING GLASS
WILL PAY FOR ITSELF



A TELESCOPE IS
HANDY FOR
DISTANCES OR...



YOU CAN BUY
CHEAP FOLD UP
BINOCULARS

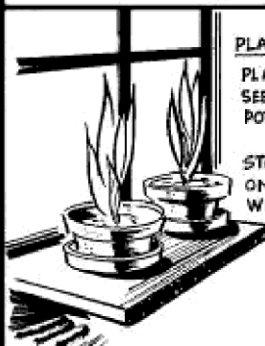






GREEN PLANTS ARE THE MOST EARTH TO THE HUMAN RACE. ALL OUR FOOD COMES DIRECTLY OR INDIRECTLY FROM PLANTS

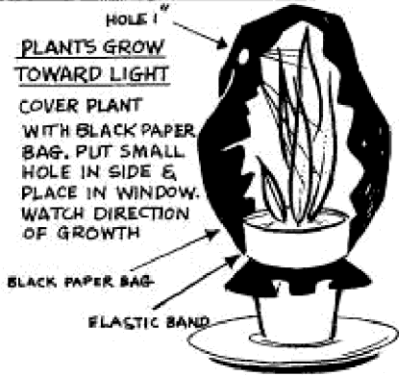
EYP2R1xENTS WoUCAH
A'AKE WITH PLAUTSI

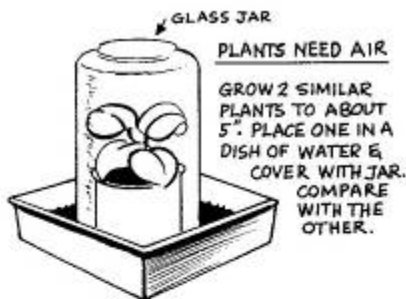


PLANTS NEED WATER
PLANT CORN OR BEAN SEEDS IN 2 SEPERATE POTS. RAISE UNTIL STOP WATERING- ONE PLANT. WATCH WHAT HAPPENS



NEED LIGHT
PLACE A PLAHT IN A DARK CLOSET FOR 1WEEK TO SEE THE RESULT





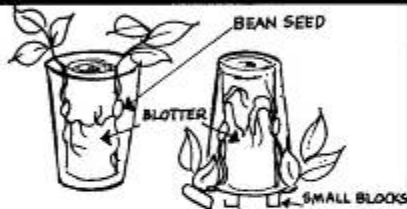
PLANTS NEED AIR

GROW 2 SIMILAR PLANTS TO ABOUT 5". PLACE ONE IN A DISH OF WATER & COVER WITH JAR. COMPARE WITH THE OTHER.



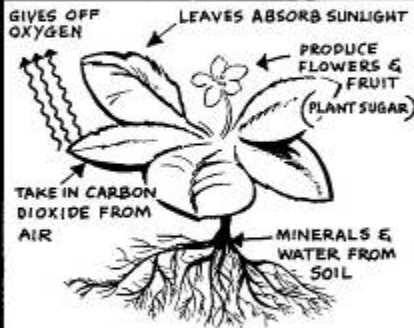
PLANTS GIVE OFF MOISTURE

TIE A PLASTIC BAG OVER A PLANT & FASTEN TIGHTLY AROUND STEM. MOISTURE WILL FORM IN BAG.



PLANT ROOTS GROW DOWN

PLACE ROLLED BLOTTER IN GLASS. PUT BEAN SEEDS AS SHOWN. KEEP BLOTTER WET. PLANT WILL GROW OUT OF GLASS. THEN TURN UPSIDE DOWN... WATCH!



GIVES OFF OXYGEN

LEAVES ABSORB SUNLIGHT

PRODUCE FLOWERS & FRUIT (PLANT SUGAR)

TAKE IN CARBON DIOXIDE FROM AIR

MINERALS & WATER FROM SOIL

SEED DISPERSAL



WIND

TUMBLEWEED

WATER FLOATING SEEDS SUCH AS RAGWEED & DOCK

ANIMALS

BURDOCK

PITCHFORK BUR

COCKLEBUR

PIGWEED

EXPLOSION

BALSAM

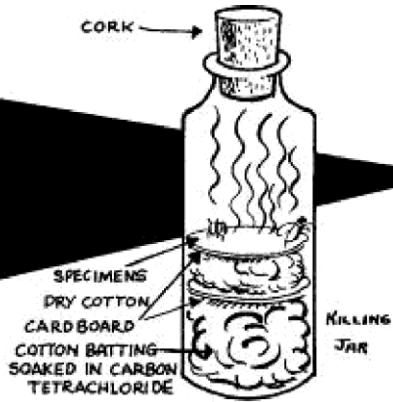
WITCH HAZEL

TOUCH-ME-NOT

DANDELION

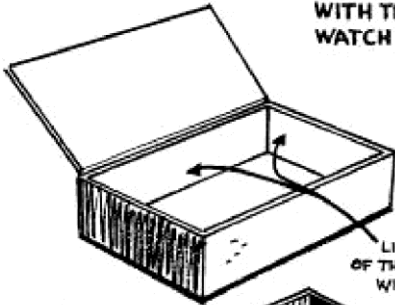
MILK WEED

collecting and mounting



COLLECT THE SPECIMENS CAREFULLY
AND PRESERVE THEM WELL
WITH THE SIMPLEST INSECTS AND
WATCH YOUR COLLECTION GROW

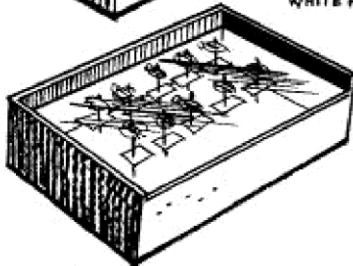
A SPECIMEN BOX



LINE THE INSIDE
OF THE BOX WITH
WHITE PAPER



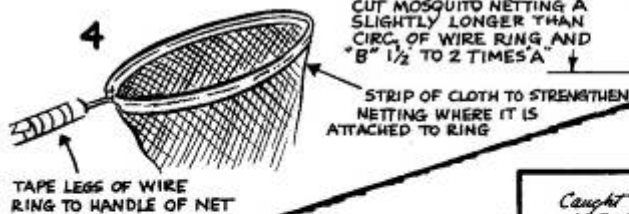
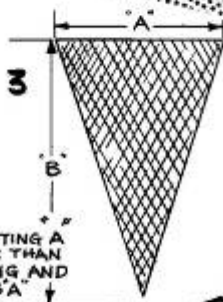
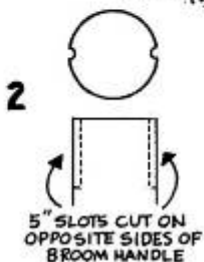
PUT 2 LAYERS OF CORRUGATED
CARDBOARD IN BOTTOM OF
BOX, GLUED SO THAT THE CORRUGATIONS
RUN AT RIGHT ANGLES



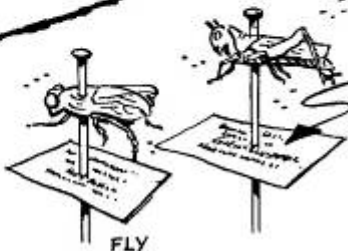
MOUNT & LABEL YOUR SPECIMENS
IN THE BOX ALLOWING ENOUGH SPACE
BETWEEN EACH.

ADD SUPPORT & SLIP A PANE
IN.

HERE ARE A FEW MORE IDEAS AND HELPS TO COLLECTING. TRY ALWAYS TO MAKE YOUR OWN. IT'S CHEAPER IN THE LONG-RUN.



PINNING INSECTS



Caught in meadow
at "Bells Corners"
June 12, 1960
GRASSHOPPER
By Cub BILL COULTER

SAMPLE CARD



YOU CAN MAKE A SIMPLE
SHELF TYPE FEEDER EASILY
USE OLD CRATING



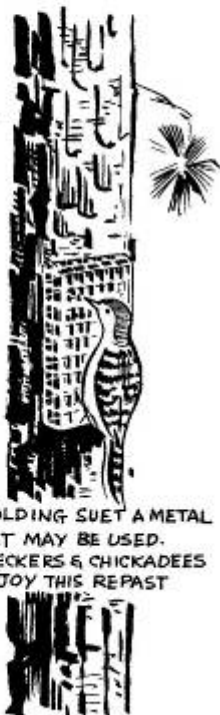
A HANDY FEEDER
IS HALF A COCONUT
SHELL. KEEP IT FAR
OUT ON THE LIMB
SO CATS AND
SQUIRRELS CANT
REACH IT

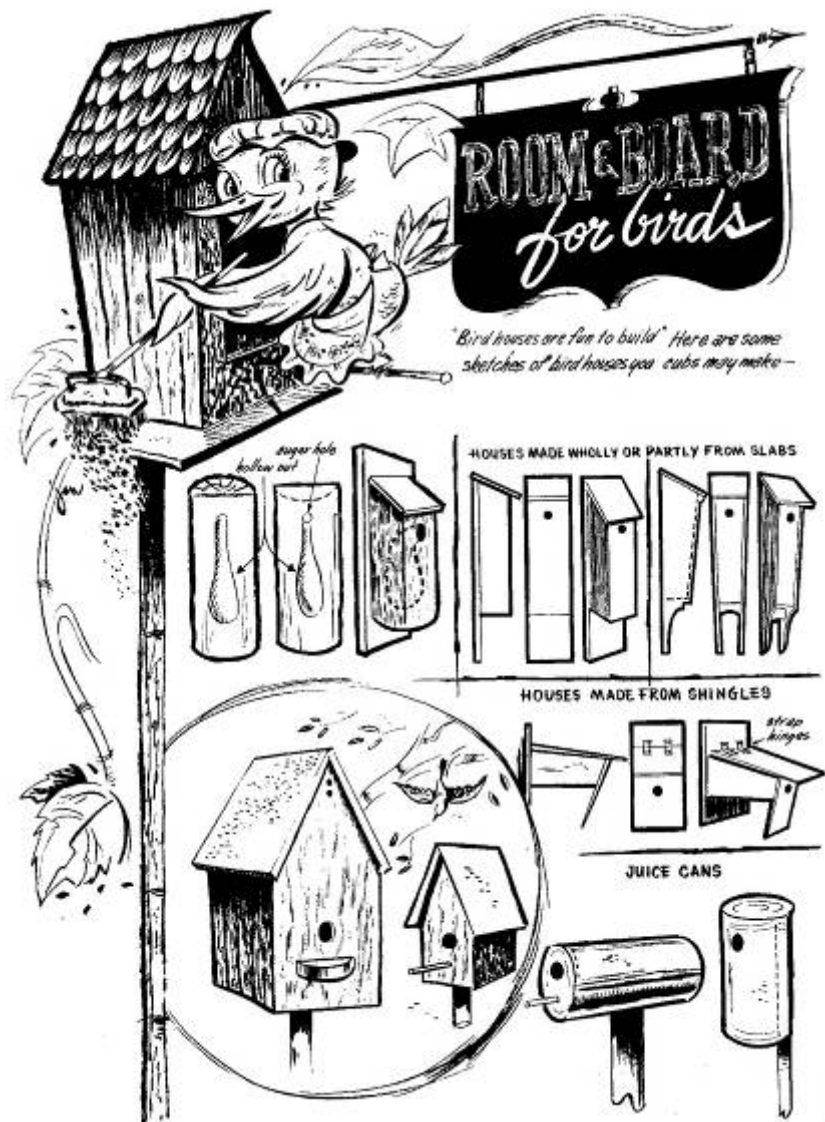


DRILL A SMALL PIECE OF
LOG WITH HOLES & FILL
WITH SUET



FOR HOLDING SUET A METAL
BASKET MAY BE USED.
WOODPECKERS & CHICKADEES
ENJOY THIS REPAST







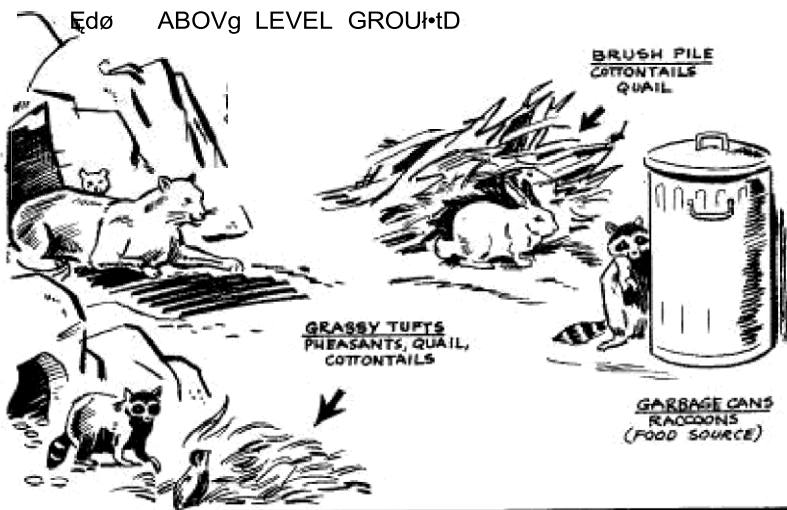
WILDLIFE Homes

IT MAY BE A "HOLE IN THE GROUND" TO YOU BUT TO A FOX IT COULD BE HOME SWEET HOME. BE IT A NEST, DEN OR BURROW IT PROVIDES SHELTER FROM ENEMIES & ELEMENTS AND COMFORT

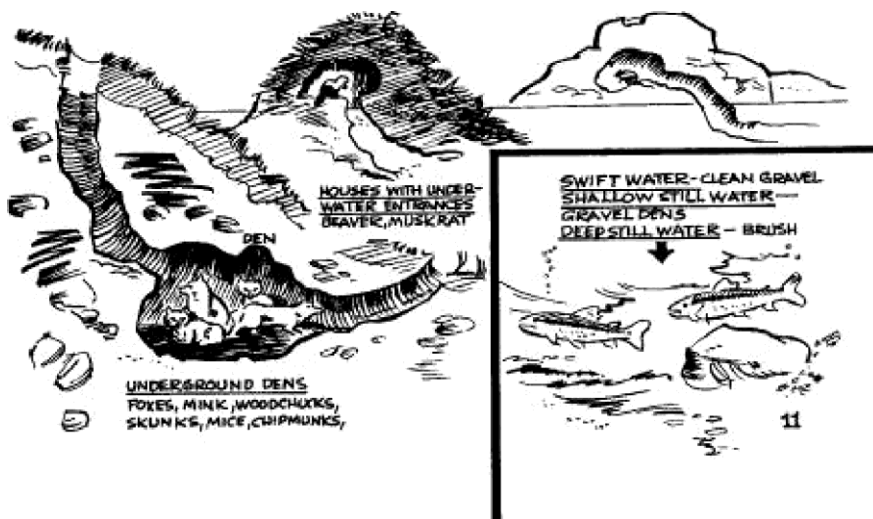
NATURAL HOMES



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NEAR OR ON LEVEL - GROUP

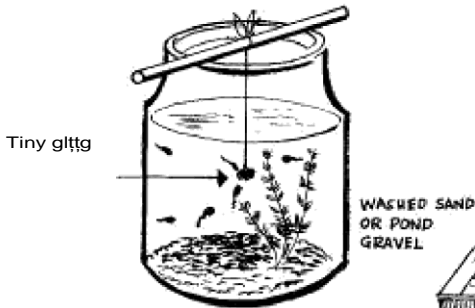


HOMES for PESTS

T Øÿ HAUNT CAŞTUREØRw
IH9ECT5 \$ TRIED TQ KEEP THE?n;W>lk
HERÉ S A FÿW StJ6GESTIOfrs HOW TO DO IT.



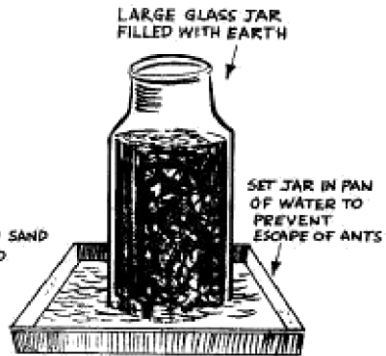
EARTHWORM TERRARIUM:
SET A TIN CAN IN A QUART
JAR WITH WITH SOIL TO
MARK. COVER REST WITH
SAND. SURROUND JAR
WITH BLACK PAPER REMOVE
TO CATCH WORMS AT WORK



Tiny glltg

WASHED SAND
OR POND
GRAVEL

CATCH TADPOLES IN THE SPRING
PLACE IN A BIG JAR & FEED
WITH CRUSHED ANT EGGS LIVER
RAW BEEF, ETC.



LARGE GLASS JAR
FILLED WITH EARTH

SET JAR IN PAN
OF WATER TO
PREVENT
ESCAPE OF ANTS

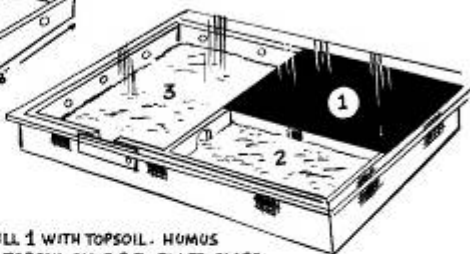
°a ENv4U 'TvacA nAy
GE* * ß QtfØl.fcaEP;v* nn

PLAIN WINDOW GLASS
13'x9'

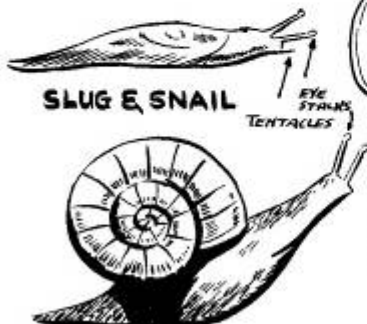


BORE $\frac{1}{2}$ HOLES WHERE SHOWN,
FOR VENTILATION TACK
SCREENING OVER EACH
USE A FLAT PIECE OF 12'x8'
WOOD FOR BASE. NAIL ON
1'x $\frac{1}{2}$ STRIPS FOR SIDES
AND PARTITIONS

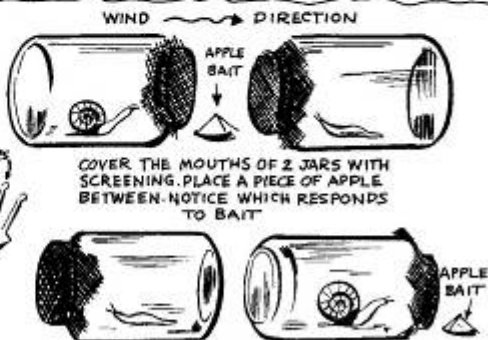
A GLASS-COVERED ANT HOUSE
WILL GIVE YOU MONTHS OF
INTERESTING STUDY. SCOOP
UP THE WHOLE ANT COLONY
IF POSSIBLE IN ORDER TO
GET THE QUEEN



FILL 1 WITH TOPSOIL. HUMUS
& TOPSOIL ON 2 & 3. PLACE GLASS.
PUT SHEET OF BLACK PAPER ON 1
SO YOU CAN PEEK. PUT ANTS THROUGH DOOR.
FEED DAMP SUGAR



A SLUG EXHIDES SLIME FROM ITS BODY
WHICH LUBRICATES ITS PATH SO IT CAN
SLIDE SMOOTHLY ALONG.



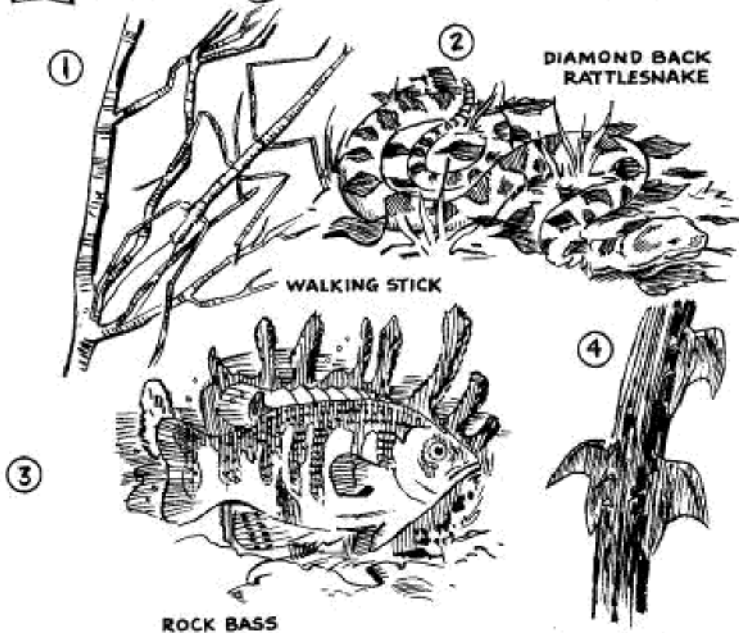
COVER THE MOUTHS OF 2 JARS WITH
SCREENING. PLACE A PIECE OF APPLE
BETWEEN. NOTICE WHICH RESPONDS
TO BAIT

NOW FACE YOUR JARS
IN OPPOSITE DIRECTIONS & SEE
IF EITHER CATCHES ODOR OF BAIT

CAMOUFLAGE

PROTECTIVE COLOURATION

OTHER NATURE USES THE « way or PROZ-
IMING HER CHILDREN- BELOW ARE A FEW EXAM-
PLS. BUT THERE ARE MANY MORE. SOME
ANIMALS CHANGE COLOUR WITH THE SEASONS-

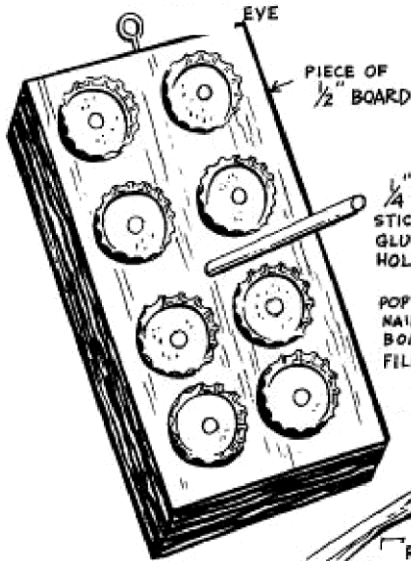




BIRb YATtMEÅS GIMM

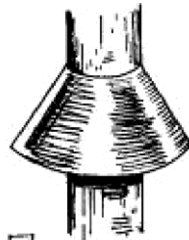
NOSEY? WELL WATCHING BIRDS
tft•N/ ALL FOETM BIRCE•GfzAB A PAI &
OF EIELP GLASSES AHD FRET GOIH6

ATTRACT THEM BY USING FEEDERS



POP BOTTLE TOPS
NAILED TO
BOARD &
FILLED WITH

IT BUTTAR

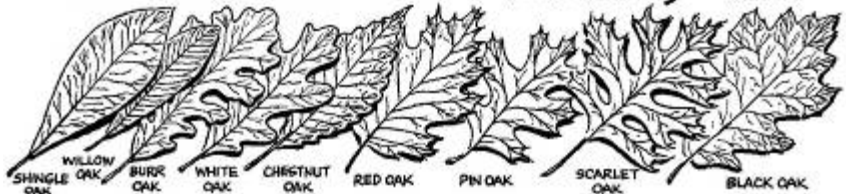
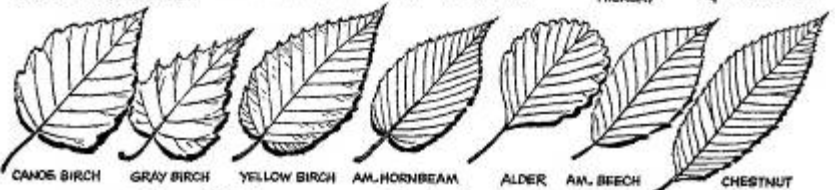
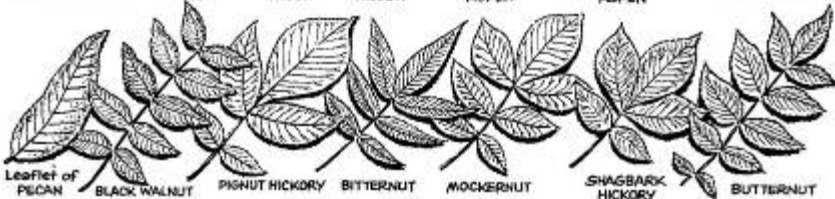


TO PROTECT YOUR BIRDS
USE A TREE GUARD SIX
FEET ABOVE GROUND



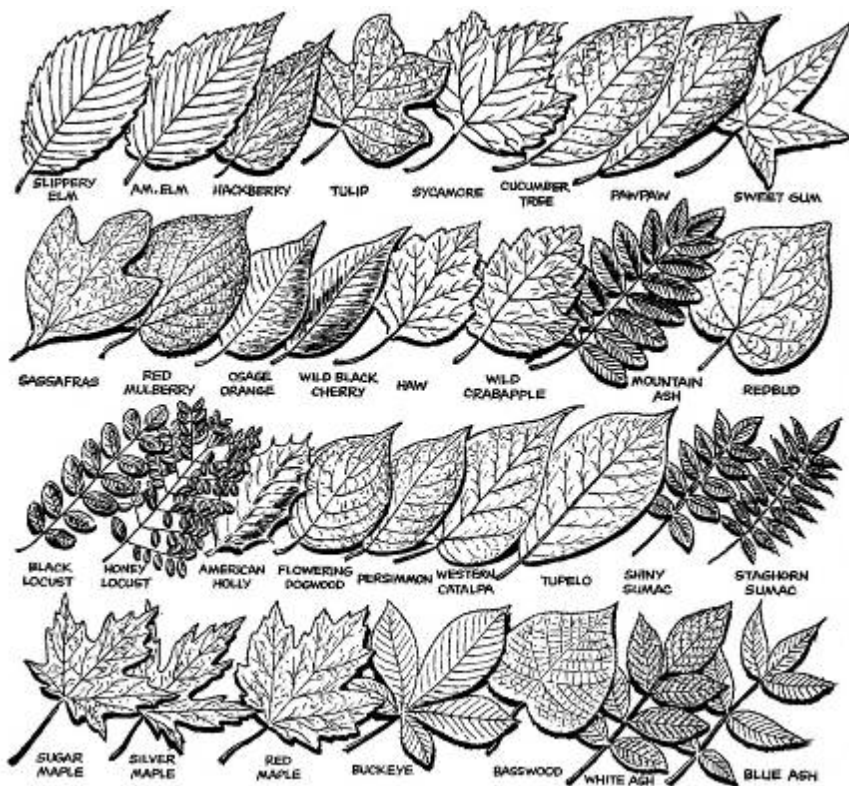
RY A WOVEN NET
FILLED WITH SUET.

LEAF COLLECTION



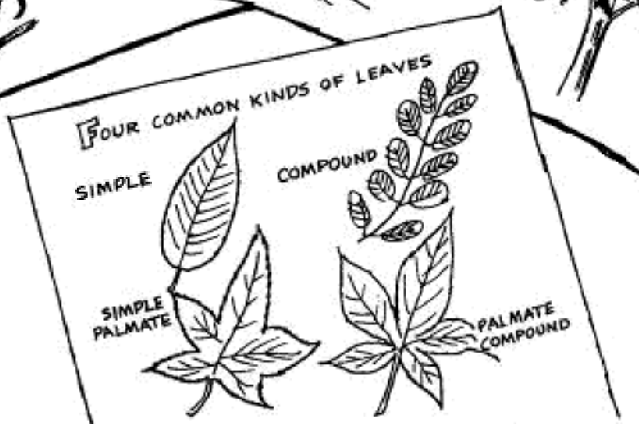
The Cub Nature Book

Being able to identify the trees that are native to the area of your hike makes for a much more interesting trip. Trees are more than just trees. Each specie has a character all its own. When you're able to recognize them individually you'll enjoy your hike a thousand times more.





ø45.gE y0t7R OWN CCELBCTION ø†
LÉAVES g EHOId PR† MT 9Ofn£ DF
THE MORE COMMON ONES

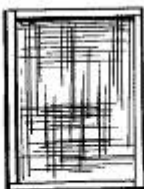


INK PRINTING



WITH A RUBBER ROLLER, ROLL OUT A SMALL DAB OF PRINTERS INK ON A GLASS PLATE, INK UNDERSIDE OF LEAF, PLACE LEAF, INKED SIDE DOWN, ON WHITE PAPER. COVER WITH PIECE OF NEWSPAPER & RUN ROLLER OVER IT.

SPATTER PRINTING



NAIL A PIECE OF WIRE SCREENING TO A WOODEN FRAME



PLACE FRAME OVER A LEAF LYING PINNED ON A PIECE OF WHITE PAPER



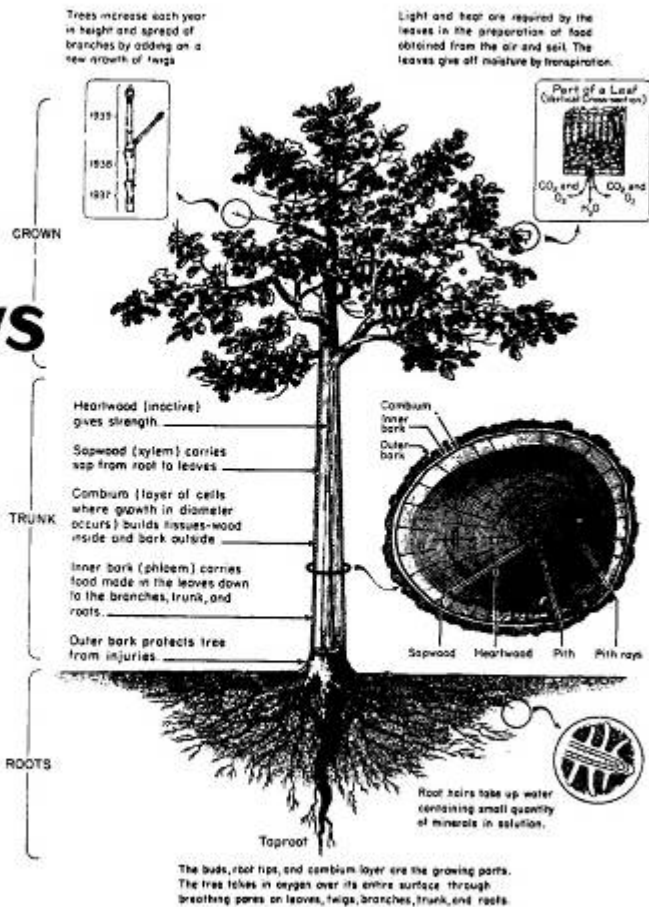
TAKE AN OLD TOOTHBRUSH OR OTHER STIFF BRUSH & PRINT COLOUR OVER SCREEN, HEAVIEST COLOUR AROUND LEAF, LIFT LEAF OFF WHEN DRY

RUB PRINTING



WITH A BIT OF COTTON, RUB THE LEAF WITH GRAPHITE OR COLOURED CHALK. LAY IT ON A SMOOTH SURFACE. PLACE A PIECE OF WHITE OR COLOURED PAPER OVER IT. RUB PAPER WITH A ROLLER OR ANOTHER WAD OF COTTON. LIFT OFF PAPER, SPRAY PRINT SIDE WITH FIXATIVE.

HOW A TREE GROWS



UTENSILS & INGREDIENTS

Growing Plants in Chemical Solution

• Water-culture or the soilless growth of plants has become an interesting development in agriculture, and we offer on this page a few suggestions for you to try as an experiment.

UTENSILS: Glass jar, granite pan, glazed or varnished flower-pot, cup, spoon and strainer for measuring and mixing.

INGREDIENTS: Many formulas are available; we offer a simple one mixed with ingredients found in most households: Dissolve 1 level teaspoonful Epsom Salts, two level teaspoons Baking Powder, one level teaspoon Saltpeter, and one teaspoon household ammonia in one gallon of water. In Spring and Summer season, as hours of sunlight increase, add more ammonia to solution, up to four teaspoons.

GERMINATION: Fill granite pan with 4 inches clean sand which has been sterilized in boiling water for at least 15 minutes. Gravel or clinders may be used instead of sand, and must also be sterilized. Sow seeds, and cover with $\frac{1}{4}$ to $\frac{1}{2}$ inch sand. Keep moist with solution diluted to quarter strength by adding 2 parts water. Cover with glass, keeping in light, warm place until seedlings sprout and are ready for transplanting, when they may be loosened from sand and solution without injury by flooding with clean water.

WATER-CULTURE: Cover jar with paper, to exclude sunlight. Cut slot in cork to support seedling. Fill jar with solution to depth required by root-system. Keep solution replenished.

Drip Method: Plant seedling in sterilized sand in glazed pot. An inverted saucer will prevent sand spilling out of drain-hole in bottom of pot. At a higher level, on shelf or rack prepared for the purpose, place jar of solution with siphon-tube (rubber hose or glass) in end of which wad of cloth controls drip. The pot should be placed on stand under which is pan to catch drainage. This drainage may be used over again. A continuous drip-flow should be maintained.

FLUSH METHOD: Illustrated in lower right-hand corner of page. Seedling planted as above, and pot prepared with inverted saucer, but placed in pan or drain-basin instead of on stand. Plant is sprayed with solution, which drains into pan, and RETURNS by capillary action. Keep sufficiently saturated to show solution in pan or basin at all times.

WIRE TRAY METHOD: Paint or varnish wire tray, equipped with supporting hooks as illustrated. Tank should be water-tight, inside coated with asphaltum or similar waterproofing. Place seedlings or bulbs in tray, supported by excelsior or peat moss. Fill tank with solution to reach root-system. Place tray in tank, and maintain level of solution.

GERMINATION

Drip Method

Flush Method

Water-Culture

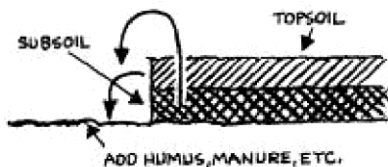
Slit Cork Supports Plant in Cap-Covered Jar of Solution (Above)

Inverted Saucer Solution



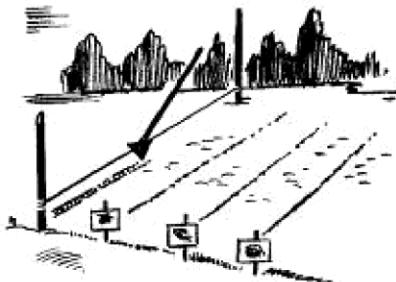
WER, TRY TO GET YOUR OWN VEGETABLES
THERE'S NO SECRET JUST A FEW SIMPLE STEPS TO
GET OUT YOUR MAT AND GET GOING!

GET THE SOIL READY



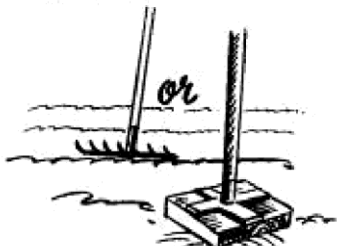
TRY DOUBLE DIGGING. START AT ONE END OF BED. DIG 2 SPADES FULLS DEEP. THROW HUMUS IN THEN TOPSOIL FIRST & SUBSOIL NEXT. CONTINUE ALONG BED.

MARK AND PLANT ROWS



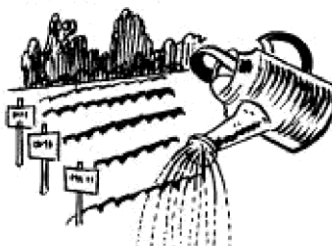
RAKE SOIL SMOOTH. USING STAKES & CORD TO MARK ROWS. OPEN UP EARTH FOR SEEDS WITH HOE

TAMP FIRM



AFTER THE SEEDS HAVE BEEN
PLANTED TAMP FIRMLY TO
QUEEN EGGS COFFIN SCEL LIMA

WATER-FERTILIZE



THEN WATER USING WATER-
SOLUBLE FERTILIZER. FOLLOW
DIRECTIONS ON CAN

THE **TOOLS** YOU NEED



The Cub Nature Book

CHART OF SEASONAL ACTIVITIES

	SPRING	SUMMER	FALL	WINTER	ANY TIME— ALL YEAR
Trees	Watch buds swell and burst. Look for tree blossoms.	Study leaves, fruit and seeds. Make leaf prints and casts.	Which trees lose their leaves? Which leaves turn bright colors? Read tree's life story in a stump.	Study winter twigs, tree silhouettes. Study woods and their uses. Consider Christmas greens and conservation.	Keep an all-year record of one tree—when blossoms, leaves and fruit appear. Conservation. Value of trees.
Other Plants	Visit gardens, greenhouses and nurseries. Make seed experiments. Study Spring flowers. Plant gardens.	Look for ferns, mushrooms, mosses and lichens. Notice summer flowers and their adaptations. Make blueprints.	See how seeds are dispersed. Make a "weed" collection or display.	Raise plants indoors. Visit stores to see how plants are used. Pot winter cassettes.	Make terraria. Note uses of plants to man. Emphasize need for conservation.
Birds	Put up birdhouses. Watch for arrival of summer visitants. Celebrate Arbor and Bird Day.	Watch nesting birds. Make bird baths. Take bird walks.	Study migration, game laws and the economic importance of birds.	Collect abandoned nests. Put up feeding tables.	Keep a year-round list of birds to determine which are residents, and which are summer or winter visitants.

The Cub Nature Book

Insects	Build cages for insects. Make collecting nets, mounting boards, etc.	Watch insects in field and in cages. Observe life cycle. Collect insects.	How do insects make music?	Collect cocoons.	Consider the economic importance and inter-relationships of insects and plants.
Other Animals	Raise guinea pigs, rabbits, rats and mice. Collect pollywogs.	Maintain aquaria and terraria with animals. Go fishing. Hold a pet show.	Learn about game laws and hibernation.	Build cages for pets. Make plaster casts. Visit stockyards, veterinarian, SPCA, taxidermist, shoe store, museum.	Hold pet show and raise pets. Visit zoos, museums. Make terraria and aquaria. Play tracking games.
Stars	Make star charts.	Learn summer constellations. Make a sun dial. Plot phases of moon.	Make models to show solar system.	Learn winter constellations.	Dramatize stories of stars.
Rocks and Minerals	Collect.	Visit a quarry. Mount your collection.	Make models of local geological formations.	Visit museums, jeweler, contractor. Study building stone.	Collect and identify rocks and minerals.
Weather	Study kites in air currents, wind, and cloud forms.	Learn what causes thunder and lightning.	What is frost?	What can you learn of snow, ice and glaciers? Make weather vanes.	Study cloud forms. Establish an amateur weather bureau.
Hikes and Trips	Take a "Signs of Spring" hike. Collect pollywogs. Go on bird walks.	Emphasize field trips to woods, hills, and parks. Go on collecting trips.	Go on cook-outs. Study Indian lore. Tracking and trailing games.	Go on winter hikes. Visit museums, factories, stores, neighborhood parks, etc.	Try to cover all locations in all seasons to see seasonal changes.
Museums	Emphasize living animals and plants in field and in cages and indoor gardens.		Make chart showing seed dispersal. Exhibit fall flowers. Make maps and surveys.	Study winter twigs, winter stars, and winter birds.	Keep exhibits changing to fit season.

PLANT collecting

HERE ARE A FEW ILLUSTRATED.
BUT THERE ARE THOUSANDS MORE!



WILD MUSTARD



SHEPHERD'S PURSE



BINDWEED



KNAPWEED



PRICKLY LETTUCE

MOUNT 'EM

WHEN YOU HAVE MADE A FAIR
COLLECTION TRY MOUNTING
SOME OF THEM UNDER GLASS
HERE'S HOW...



SELECT YOUR PLANT & PLACE
BETWEEN 2 SHEETS OF WAX-
PAPER. PRESS IN BOOK.



WHEN READY (AT LEAST 2 WEEKS)
TRACE OUTLINE ON COLOURED
CARD & GLUE EACH SECTION



FRAME MOUNT GLASS

MAKE OR BUY FRAME & COVER
WITH GLASS. PRINT VARIETY.



MAKE AN
OATMEAL BOX CONSTELLATION!



OR USE OLD SLIDES

OLD UNDERDEVELOPED 35 M.M. SLIDES MAKE EXCELLENT BASE FOR CHARTING OUT CONSTELLATIONS. PIN PRICK SAME AS ABOVE AND PROTECT ON SCREEN. MARK NAME AT TOP OF FACE SIDE.





NHS BEAVER HAS LONG BSEM & 0YN\BO L
DF CAHAPA. IT f6 THE LARGEOT ItODENT ON
NoRTH PRICE FLAT WAFELEO TAI L
I • US MOST h)Ui-f€CABL5 C ki NC

WARNING SLAP



AN O DIVE

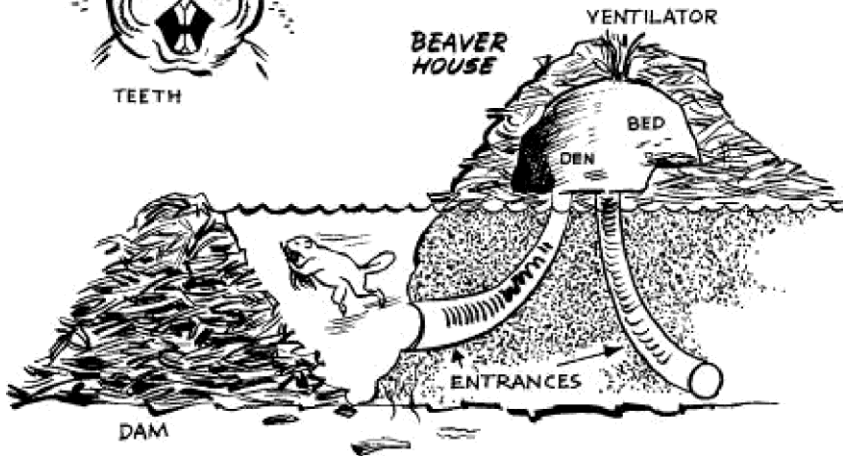


HOW POINT BLANKETS GOT THEIR NAME

IERC VVAS Ahhêr<INOOR
EO&F OF ISLAHKET• ONE PLLT
FOR EACH MARK. THUS BLANKET
ABOËE WAS WORTH 4 PELTg



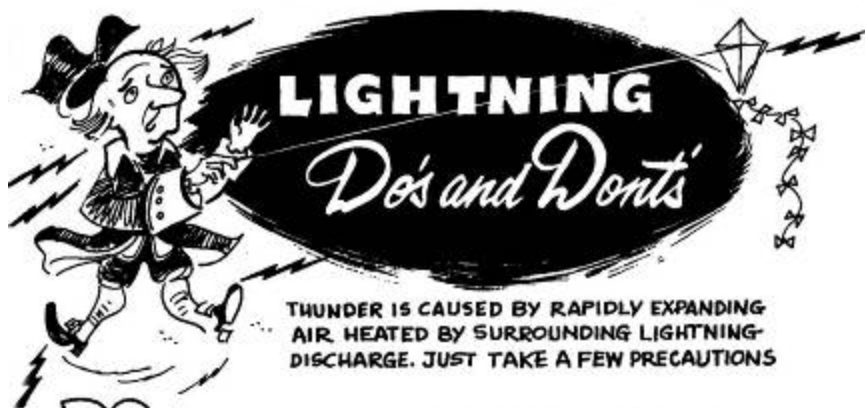
TEETH



FOOD CHAIN

IN THE ILLUSTRATION BELOW YOU CAN SEE A SMALL SEGMENT OF NATURE'S FOOD CHAIN.





THUNDER IS CAUSED BY RAPIDLY EXPANDING AIR HEATED BY SURROUNDING LIGHTNING-DISCHARGE. JUST TAKE A FEW PRECAUTIONS

DO:

FIND SHELTER DURING A THUNDERSTORM. A LARGE METAL OR METAL FRAME BUILDING IS BEST



• GET INSIDE AN AUTOMOBILE

• OR FIND REFUGE IN A METAL BUILDING



IF YOU'RE CAUGHT UNEXPECTEDLY FIND A CAVE OR DEPRESSION OR...



IF THERE IS NOTHING ELSE LIE FLAT ON THE GROUND. BETTER TO BE SOAKED THAN SCORCHED

DONT:

• GET INTO SMALL SHELTERS THAT ARE ISOLATED • STAND UNDER ISOLATED TREES • STAND NEAR WIRE FENCES OR OVERHEAD WIRES • STAY ON HILLTOPS OR WIDE OPEN PLACES • SWIM OR STAY IN A SMALL BOAT IN OPEN WATER • RIDE A BIKE IN THE OPEN

LANDSCAPER

YOU MAY NOT END UP A BOTANIST
BUT YOU'LL BE HELPING DAD A LOT
& LEARNING AT THE SAME TIME



BUILD A 4 COMPARTMENT
BOX. TRY DIFFERENT KINDS
OF PLANT FOOD IN SOIL
TO SEE WHICH IS BEST.

MAKE BEDS, BORDERS,
WALKS, ETC. NEATER BY
KEEPING THEM TRIMMED.
USE SPADE OR EDGER.



TRY BRICKS FOR EDGING
YOUR GARDEN. PAINT THEM
WHITE IF YOU LIKE.



USE AN OLD GARBAGE TIN
LID FOR BIRD BATH. PAINT
DEEP GREEN, EDGE WITH
STONES & PLANT AROUND IT.