

NATURE NOTES



Artist: Cindy Hirman

VOLUME 18 NO. 8

EDITORIAL

WHAT'S IN THIS MONTH'S
"NATURE NOTES"?

Editorial.....P.1

Bird Watchers
wanted.....P.2

Seasons come,
seasons go.....P.3
by D. Brydon

Super Salmon.....P.5
by A. Carmichael

Nature in the News...P.7

Forest fire!.....P.9
by A. Carmichael

Rubbish, junk and
all that trash.....P.11
by Colin Bull

There's always plenty
of time.....P.13
by D. Brydon

The world's cheapest
watch.....P.15

ARTISTS THIS MONTH

Thanks to Wilma Prohasky,
Carol Measures and Cindy
Hunnam.

BELOW: Thanks to the "Herald
and Weekly Times",
Sept. 9, 1981

COULD THIS BE NATURE'S ANSWER TO THE OIL
CRISIS WE ARE ALWAYS HEARING ABOUT? Find
Hainan in your atlas. Where does Australia
get most of its oil from today? What does
nature have to do with oil?

"Nature Notes"....
A RINGWOOD INSPECTORATE PUBLICATION
Page 1

Hello there,

Have you seen this
month's front cover? Don't you
feel sorry for the poor old
Earth? He looks absolutely ex-
hausted, doesn't he? Wouldn't
it be boring to go round and
round and round and round the
Sun-forever? Yet that's what
it has to do.

Nature has many patterns and
many of them are CYCLES. Look
at the front cover again. What
other 'cycles' can you find in
it? This month's "Nature Notes"
is a special issue about
patterns in nature. Can you
think of any we have not cov-
ered? There are hundreds and
probably many more we have
not yet discovered. Often, when
loggers and miners go into an
area, they wreck natural patt-
-erns we don't know about yet.
Sometimes these patterns are
destroyed forever. Perhaps you
could use your library to find
out about food 'chains' or
'webs'. Cheerio for now,
Debra Brydon

'Oil' tree

Peking. — Chinese sci-
entists have discovered
a tree on the southern
Island of Hainan which
yields an oil similar to
kiesel oil, the Guang-
ming Daily said re-
cently.

The newspaper said a
large "Yunnan" tree was
capable of yielding more
than 50 kg (110 lb.) of oil,
though the average was
20 to 25 kg (22 to 55 lb.).

The acrobatic Wattle-bird is a
frequent visitor to my garden in
Boronia. Sometimes as it feeds
on the nectar from our trees, I
am amazed that it doesn't fall
off. By the way, if you're
looking for Wattle-birds,
they're brown and grey,
with a yellowish 'belly'
and red wattles (spots)
at the side of their
head. Their call is
a loud and raucous
"Kwock! Kwock!"

The Red
Wattle-bird
is Australia's
largest mainland
honeyeater. It usually
lives with others of its
kind in pairs or flocks.



RED WATTLE-BIRD 340mm. (13.5in.)

ILLUSTRATION: Thanks to
"Birds of Victoria-the
Ranges"....Gould League

Bird watchers wanted

The Bird Observers Club is interested in
hearing from anyone who would like to provide
information for the new Victorian Annual Bird
Report.

They don't want to
know about every black-
bird on your lawn, but
about unusual numbers
of birds, or birds in areas
where they are not usual-
ly seen.

Gang-gang cockatoos
and pied currawongs are
regular autumn visitors
to the outer eastern sub-
urbs of Melbourne but are
most unusual in the cen-
tral or western suburbs.

Gilbert whistlers are
expected in the Mallee as
far south as Bendigo, but
happy are the two bird-
watchers who recently
watched one in their sub-
urban garden in Macleod.

BOC member Doug
Robinson is editor for the
report and is collating
and analysing data
heats as they come in.
He'd like to get more
details of migrant species
— which wood swallows
nested in Victoria this
year, what cuckoos over-
winter here, or uncom-
mon numbers of common
birds seen.

There have been re-
cords over the last few
years of some aviary
escapes forming small
colonies — for instance
some of the northern fin-
ches.

Nobody can say
whether they will last, as
we know very little about
how birds adapt to new
areas.

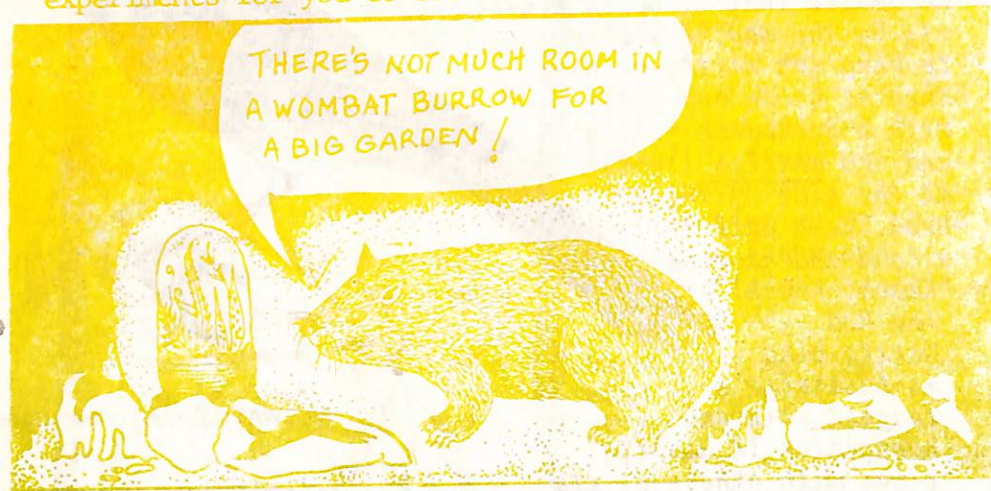
Although the BOC has
members all over Austr-
alia it is based in Mel-
bourne, so it seems logi-
cal it should initiate a
bird report for Victoria.

The BOC postal
address is PO Box 185,
Nunawading, 3131.

By filling in the simple
form, observers will
greatly contribute to a
greater understanding of
Victoria's unique birdlife.

Thanks to the "Herald
and Weekly Times"

Science experiments are generally involved and costly but here are two rather cheap experiments for you to do.

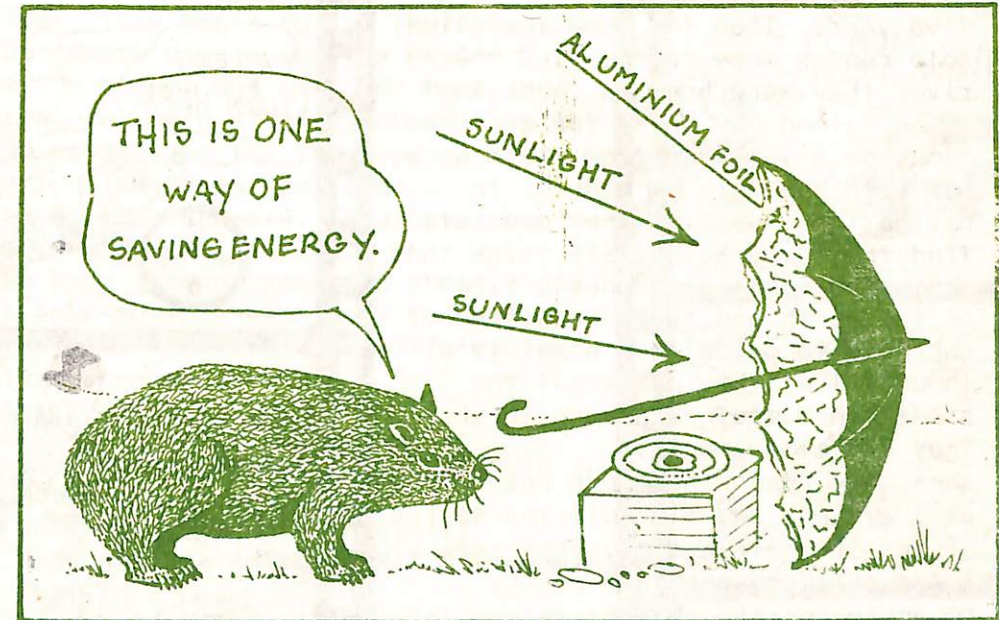


RUBBISH, JUN

You like to drink lemonade, no doubt and of course, Mum and Dad always think of the cost. So to save money, they buy the soft drink in the big two litre bottles. These are unbreakable but most of all, hard to dispose of. Well, have you ever thought of what a lovely little terrarium they would make? First remove the hard plastic base, as this will be the planter section of the terrarium. Now remove the label carefully, taking care not to scratch the plastic. Then cut the bottle about three quarters of the way up, using a stanley knife. Be careful not to cut yourself; better still get an adult to do the cutting. Now we are ready to plant our seedlings and plants. The bottle part is turned upside down and placed over the hard base. Your new terrarium will look quite attractive in the classroom or at home. It could even make a great present once the plants have grown a bit.

Winter is almost over now and the days are getting warmer. One thing about spring is that there is a lot more sunlight. If you have read some of the other articles in this month's "Nature Notes", you will know why this happens. For this experiment you will need an old umbrella and some aluminium foil. Don't use Mum's best umbrella—any old battered one will do. What we are going to do is to line the inside of it with aluminium foil and make a solar furnace/heater. Put the umbrella up and start lining the umbrella with the foil. Make sure there is no area shading another. Then, on a fairly hot day, take the umbrella out and set it up. You will need to experiment by trial and error as to the best place to put whatever it is you decide to cook. You will also have to find a way to support your cooking so it does not cast a shadow across the foil. Don't worry if at first it doesn't seem to work—it will take some time for your solar meal to cook.

K and all that trash



LOOK! UP IN THE SKY,
IS IT A BIRD - IS IT
A PLANE - NO IT'S

SUPER

There are several different types of salmon in the world, each with its own special habits - but they all have one thing in common - their incredible life-cycle.

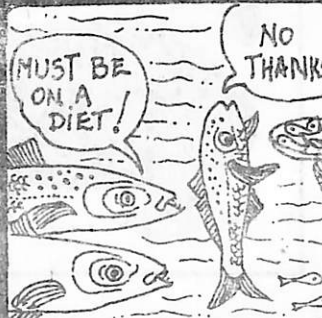
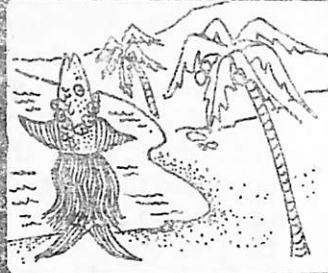
The Pacific salmon begins it's life at the very beginning of a stream or river, a long way from the sea. When it is three or four weeks old it begins a journey down to the ocean from its birthplace. This is a dangerous journey- the salmon could be eaten by bigger fish, birds or even die from pollution in the river. It could become trapped in a man-made dam or reservoir. All said and done very few of the thousands of salmon hatched at one time make it to the ocean.

Here they live for up to five years. Then for some inexplicable reason they try to find the river they were born in to spawn.

The salmon may be as far as three thousand kilometres from their home, but with the help of a built in navigational system, they are able to find their way. Scientists think that the salmon use the magnetic field of the earth and their knowledge of currents to guide them home. It's thought that they can smell the stream that they were born in when they get close to it.

When they reach the fresh water they stop eating, and live off the stores of fat in their bodies. Then some remarkable changes take place.

Depending on the type of salmon it is the fish begins to change its



SALMON!

shape or color. The males develop a hooked snout. The male pink salmon grows a hump on its back, the chum salmon grow purple streaks down their sides and the sockeye salmon turn a bright red. The salmon continue their dangerous journey upstream. It is here that there is the biggest danger of them being caught by fishermen, and never being able to lay their eggs. They have to jump up waterfalls and battle against the flow of the river for many kilometres until they reach the top of the river. They have an extra hazard now with the dams and irrigation channels built by man. In the U.S.A. they have developed "fish ladders" to help the fish climb over the dam walls.

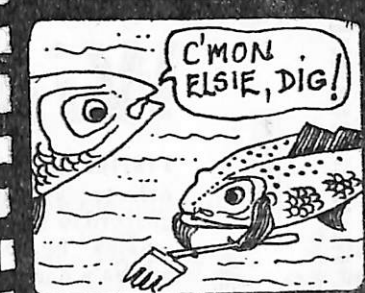
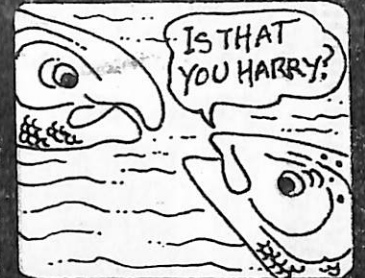
When the salmon reach the top of the river, they begin to lay their eggs. The female digs a shallow nest out of the gravel and lays her eggs there, with the male standing guard. She may lay as many as ten thousand eggs in various nests in the river.

The salmon then die. They have completed their role in life.

The baby salmon appear in about three or four months, when they too will start the same fantastic life-cycle all over again.

THINGS TO THINK OVER.

- * Why are salmon becoming scarce in number?
- * What is being done about it?
- * What are the salmon's NATURAL enemies?
- * What is a hatchery?
- * Find out where salmon live on a map of the world.



by: M. Roberts
W. Prohasky

● DWAYNE, Jason and Darren Neasey try to get one of the baby whales back into the sea at Sca-
mander.

BELOW: Thanks to "THE SUN" (9-9-81) p.3



This is the 3rd time this year that herds of whales have beached themselves in Tasmanian shallows. The most common theory explaining why this happens is that the leader of the herd becomes trapped in shoal water. The rest of the herd are so confused that they



Winds foil rescue of whales

FISHERIES and Wildlife officers and police battled yesterday to save 183 pilot whales beached on Tasmania's east coast.

But strong winds, rough seas and a determined effort by the whales to stay put, foiled the rescue attempt.

By late last night only 50 whales were left alive, and most of the others were expected to be dead by today.

National Parks and Wildlife Officers camped on the beach

overnight and will try to save any that survive today.

The rest will be buried in a mass grave.

The whales were washed ashore on "Iron House" beach, 9 km south of Falmouth, on Monday night.

They were discovered early yesterday by local resident Mr Henry Aulich.

"I looked out the window about 6.30 a.m. and saw all these whales on the beach," Mr Aulich said.

Mr Aulich, 62, said rescuers attempted to tow the whales — ranging in length from two to five metres — out to sea using a Fisheries and Wildlife boat, but were thwarted by harsh weather conditions.

"The whales did not have a hope of getting back into the water . . . the wind and seas were too high," Mr Aulich said.

panic and rush in to become trapped. Another explanation is that the whales' nervous system controls their navigation. This becomes diseased and stops working. Scientists are now studying parts of the dead whales to see if this is true. What parts do you think they would be looking at?

BELOW: Thanks to "THE SUN" (9-10-81)

Dinosaur Cove it is!



THREE Victorian inhabitants of more than 100 million years ago have inspired the state's newest place name.

Archeologists who found rare fossil bones there have proposed that a tiny cove 10 km west of Cape Otway be named Dinosaur Cove.

The bones, in tiny fragments, come from three types of dinosaurs that roamed the Otway and Strzelecki Ranges.

Two were small, two-legged vegetarians no taller than an adult human.

The third was a five-metre tall flesh-eater called Allosaurus, which had powerful jaws, dagger-like teeth and a massive tail.

A joint team from the National Museum of Victoria, the University of NSW, Monash University and Queensland Museum found the site in December.

Dr Thomas Rich, Cura-

tor of Vertebrate Paleontology at the National Museum, said it appeared to have been an ancient stream channel which became filled with sand and turned to stone.

Dr Rich said the fossil hunters informally christened the area Dinosaur Cove.

Later a formal submission was made to the Place Names Committee of the Department of Crown Land and Survey suggesting the name.

BELOW: Thanks to "THE SUN" (7-9-81)

Exotic fare for koalas

SIX koalas will go to California next year confident they'll like the local tucker.

Melbourne Zoo's koalas have happily munched Los Angeles gum leaves to pave the way for their stateside trip in March.

The zoo will give six of its koalas to the Los Angeles Zoo in honor of the city's 200th birthday at the weekend.

Melbourne Zoo's deputy director, Mr Gra-

ham Shotter, said: "We got a list of very stringent conditions from the Environment Department to make sure there was 100 per cent certainty they would survive."

"The koala took to the LA gum quite readily, even though it was two days old," Mr Shotter said.

forest

Fire is an important event in the forest, because it completes a cycle. In forests like those in Australia, the seed pods of many plants are really tough and don't germinate by just laying on the ground and becoming wet like many introduced plants.

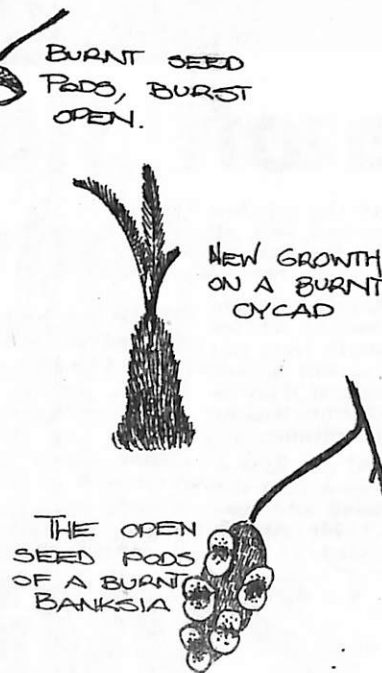
A wattle's seed pod is rock hard and the only way it will burst open is with the heat of a fire. The fire is therefore a most important part of the life cycle of many Australian plants and trees.

The Acacias, Banksias and cycads are just three of the plants which benefit from the effects of a bush fire. Eucalypts too have had to adapt to this fire-prone land so as to survive. Their bark is thick and almost fire-resistant, whilst their seeds, held high in the crown of the tree, crack open after the heat of a bush fire.



IMAGINE AUSTRALIA WITH NO WATTLES!

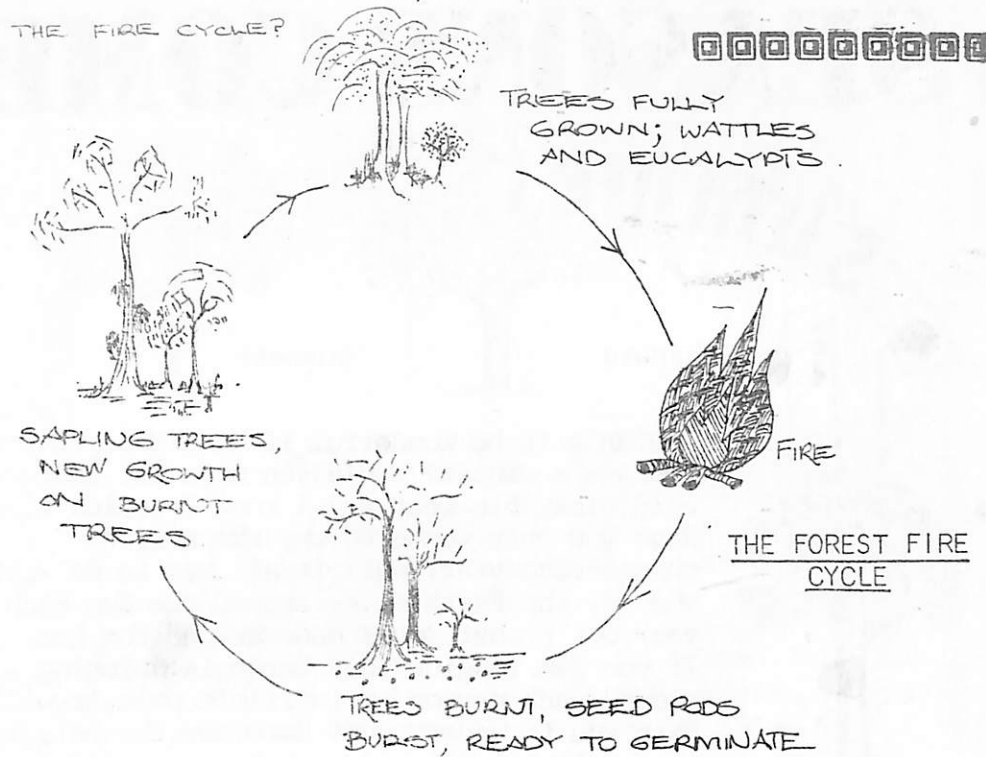
fire



• ARE ALL FIRES BENEFICIAL TO OUR NATIVE PLANTS?

• FIND OUT ABOUT "COOL BURNING" AND "INTENSE BURNING". • HOW DID ABORIGINES USE

THE FIRE CYCLE?



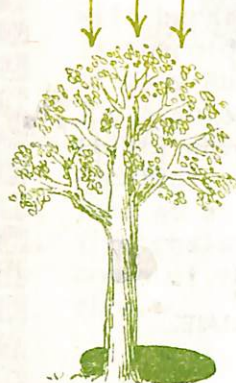
Without bush fires there would be many trees and plants which would die out completely. Have you ever been through a blackened forest a month or so after a fire has raged through? Did you notice the green leaves on the tree trunks? This is the tree's way of generating new leaves from a special hidden store under the bark in the trunk. Wildflowers too need the help of a fire to stay alive. Without fire, the tall grasses and shrubs could choke the often tiny wildflowers. The fire helps to rid the flowers of their competition and to germinate the seeds, which lead on to new life.



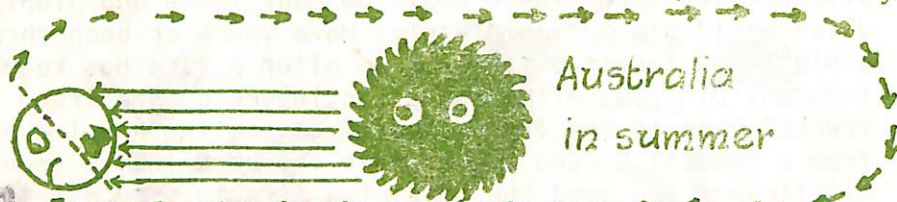
• THE HEATH OWES ITS EXISTANCE TO THE CONTINUING FIRE CYCLE •

• by M. ROBERTS •

SEASONS COME...SEASONS GO



Wouldn't it be wonderful if we didn't have to have a winter? Would you miss all that cold, miserable weather? I know I wouldn't! Have you ever wondered why the seasons change each year? Well, it all has to do with the way the Earth moves around the Sun. Each year, our planet moves once around the Sun. If you can imagine that Earth is spinning around each day on an invisible pole, it will help you to understand. Remember, the pole is slightly tipped over. Because of this 'crookedness', the Sun's rays



March, many plants 'know' there are less and less daylight hours each day and 'know' when to lose their leaves.

As the Earth continues to travel around the Sun, it slowly begins to tip more and more towards the Sun. The Sun's rays can now begin to travel in a straighter path. When they hit Australia, they are closer together. The days (at last) grow warmer and warmer. The number of daylight hours every day gets greater and greater. Shadows grow longer and longer.

SPRING is when plants and animals 'know' it is getting warm enough (and the days long enough) to begin growing again and having their babies. Why don't they do these things in winter? All the time, the Earth continues around the Sun. I wonder if it ever gets sick of the same old journey.

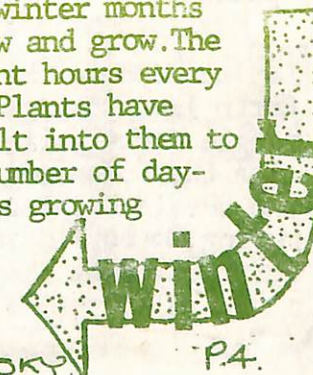
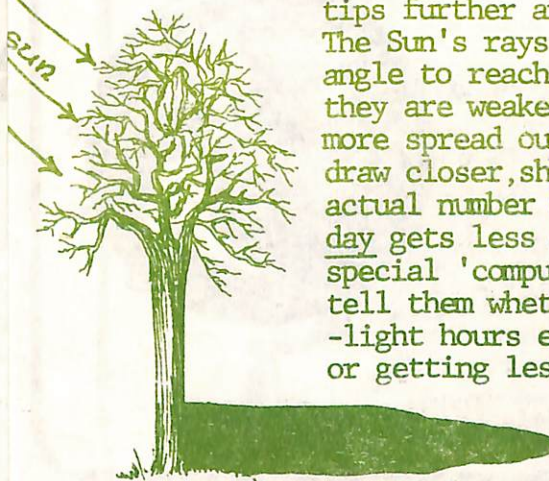


don't hit the Earth in the same way at different points in the Earth's journey around the sun. In SUMMER, the Earth is tipped in such a way that the sun's rays travel in a straight path to hit Australia head-on. This means that the climate becomes hotter and shadows are at their shortest. You can see this for yourself. Adopt a small tree or shrub in your school yard. About once a fortnight, at exactly the same time of day, trace around the tree's shadow with chalk. Paint over the line with a water-proof paint to stop the rain from washing it away. Do this for a year. What does the shadow line tell you?

Anyway, to get on with the journey, the Earth continues its slow trip around the Sun during the summer months. As time goes on,

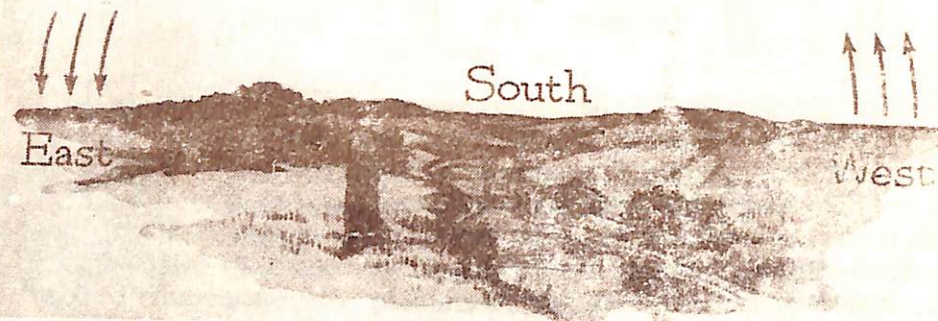


the Earth, on its invisible 'crooked pole', tips further and further away from the Sun. The Sun's rays now have to travel on an angle to reach Australia. Because of this, they are weaker and colder. They are also more spread out. As the winter months draw closer, shadows grow and grow. The actual number of daylight hours every day gets less and less. Plants have special 'computers' built into them to tell them whether the number of daylight hours each day is growing or getting less. Around



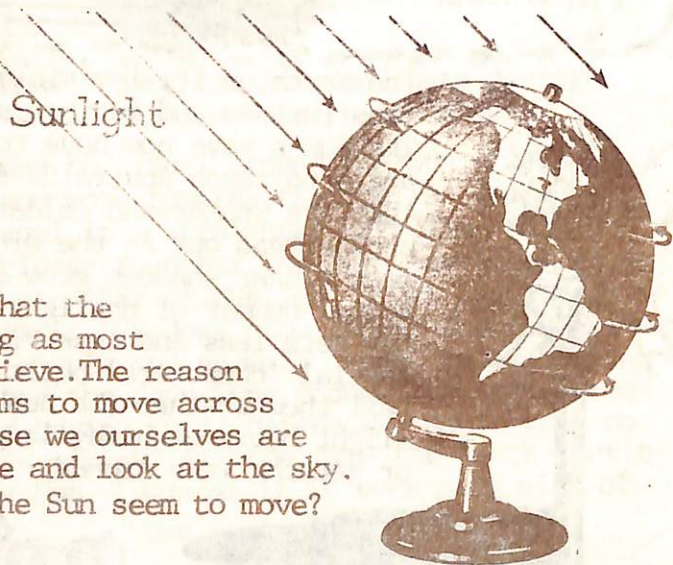
There's always plenty OF TIME...

Illustrations:
Thanks to "EXPLORING
SCIENCE" by W.Thurber



Until about 500 years ago, people believed that the Sun travelled around the Earth. They said that one day was the time needed for the Sun to go once around the Earth. Today we know that the Earth is round (a sphere to be correct) and that it spins around like a top. We now know that it is the Earth that travels around the Sun. We say that one day is the time needed for the Earth to spin around once. Put a globe in sunlight and turn it slowly. When the Sun is over the place where you live, it is noon. Turn the globe slowly until it is noon again. One day has "passed".

Let us suppose that the Earth is spinning as most people today believe. The reason that the Sun seems to move across the sky is because we ourselves are moving. Go outside and look at the sky. Which way does the Sun seem to move?

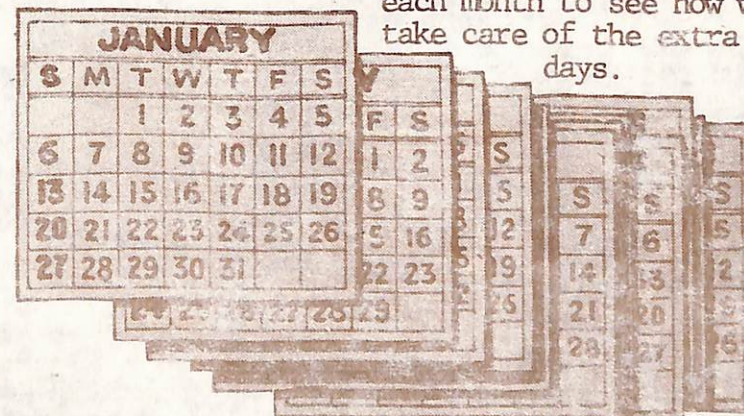


Crescent First Quarter Full Moon Last Quarter Crescent

Which way must the Earth be spinning to make the Sun seem to move as it does? Look at the skyline in the west. Imagine that it is rising. What will happen when the skyline reaches the Sun? Look at the eastern skyline and imagine that it is moving. When does sunrise come? Where will you be when midnight comes?

We believe that the Earth has another motion, too. We believe that it travels around the Sun in a path that is almost a circle. The time needed for the Earth to travel once around the Sun is called a year. The Earth needs about 365½ days to travel once around the Sun. When we divide the year into days, there is a quarter of a day left over. We cannot put a quarter of a day on the calendar, so we add one full day every four years. In what month do we add the extra day? When will the extra day be added again?

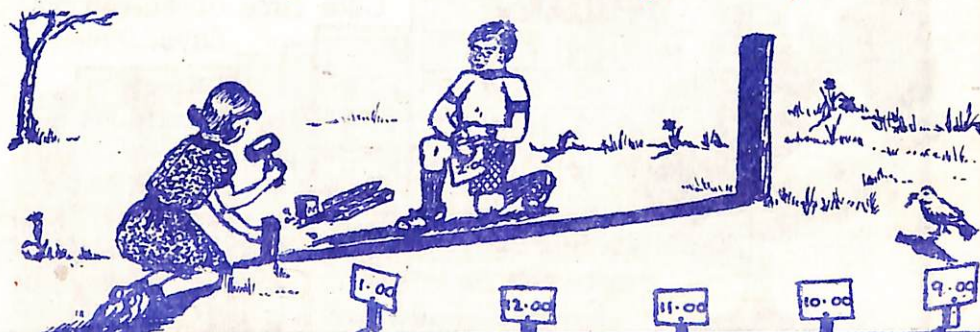
The word "month" comes from the same word that gives us the word "moon". A month has often been called a moon. Watch the moon for a few weeks and you will see that it changes shape. At first, it is a little sliver of light in the western sky. Night by night, it grows larger until it is fully round. Then it grows small again until you can no longer see it. The time needed for the moon to go through these changes is almost 30 days. There are twelve "moons" in a year with a few days left over. Count the days in each month to see how we take care of the extra days.



THE WORLD'S

cheapest watch.....

...is the sun, of course! Every day the sun seems to rise, to move across the sky and then to set again. It is so regular in its movements that it has always been a good timekeeper. Hundreds of years ago, sundials were used to tell the time. What are they? Today, we have clocks and watches to help us tell the time but we can still use the sun. We can easily tell the difference between morning and afternoon by the sun. We know when evening is near. We know when it is nearly noon. Drive a pole into the ground in a place that is sunny all day. Watch the shadow of the pole. How does it change as the sun moves? Each hour drive a small stake into the ground at the end of the shadow of the pole. Mark each stake so you can tell when you drove it into the ground. You can then use the stakes to tell the time for several days afterwards. This will save your watch from wearing out-do you think?



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