

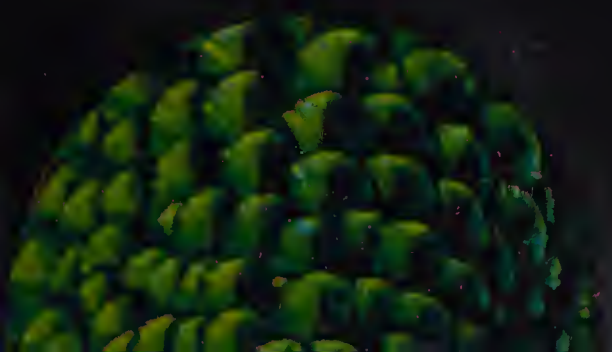
Visual illusions and guessing games

Mega close-ups



Multiple choice

Mind benders



ZOOOM! TUM!

Visual Illusions and guessing games



An Hachette UK Company
www.hachette.co.uk

First published in the USA in 2014 by Ticktock,
an imprint of Octopus Publishing Group Ltd
Endeavour House
189 Shaftesbury Avenue
London
WC2H 8JY
www.octopusbooks.co.uk
www.octopusbooksusa.com
www.ticktockbooks.com

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Distributed in the US by
Hachette Book Group USA
237 Park Avenue
New York, NY 10017, USA

Distributed in Canada by
Canadian Manda Group
165 Dufferin Street
Toronto, Ontario, Canada M6K 3H6

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ISBN 978 1 78325 162 9

Printed and bound in China

1 3 5 7 9 10 8 6 4 2

Commissioning Editor: Anna Bowles
Publisher: Samantha Sweeney
Senior Production Manager: Peter Hunt
Production Controller: Sarah-Jayne Johnson

Picture credits:

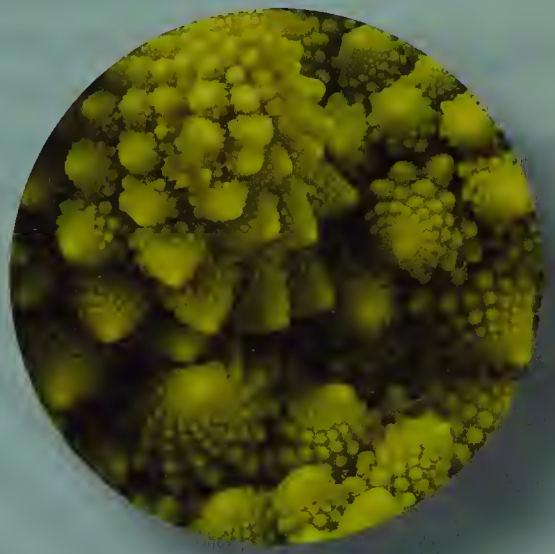
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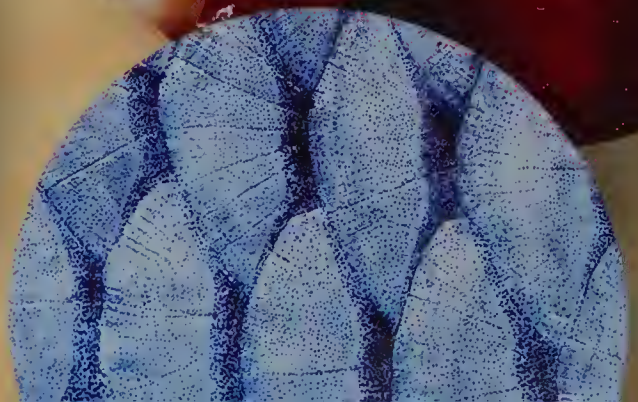
ZOOOM!

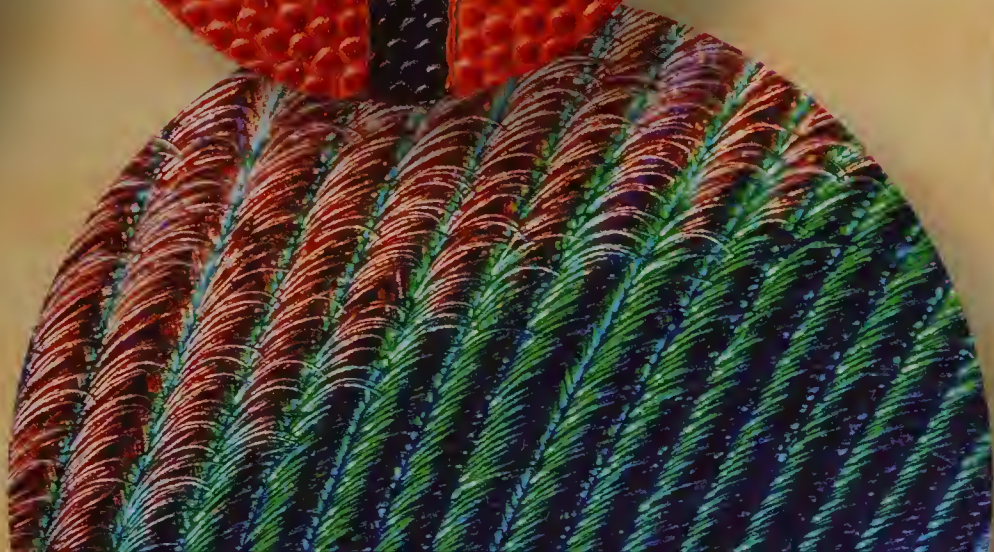
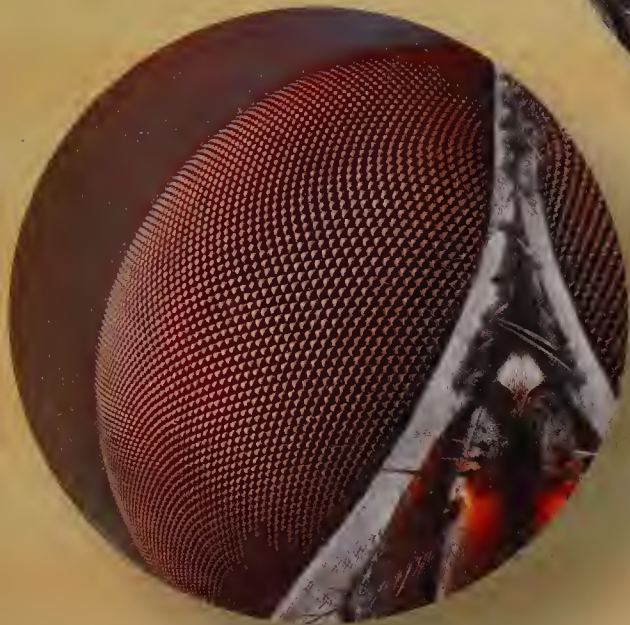
Visual *illusions* and *guessing* games



Seeing is... Confusing!

Things can look bizarre when you see them very close up. Turn the pages to find out what these odd-looking objects are.





Eyes surprise

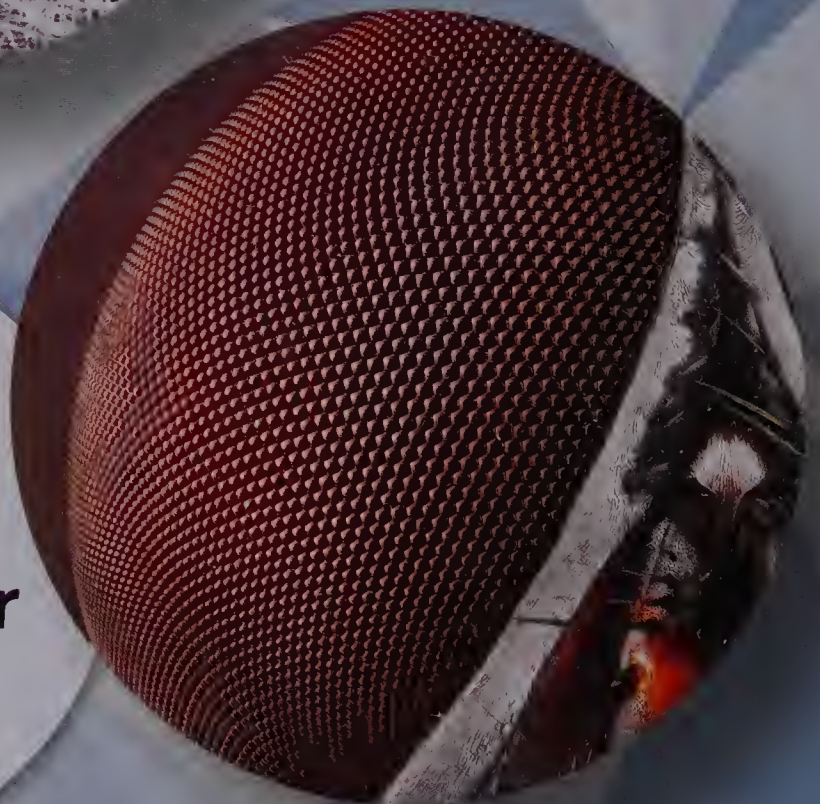
What curious creatures have peepers like these?

Answers at the bottom of page 8.



1
sparrow
hawk
owl

6



2
fly
grasshopper
spider

3

**alligator
fly
fish**



7



4

**sheep
squid
fish**

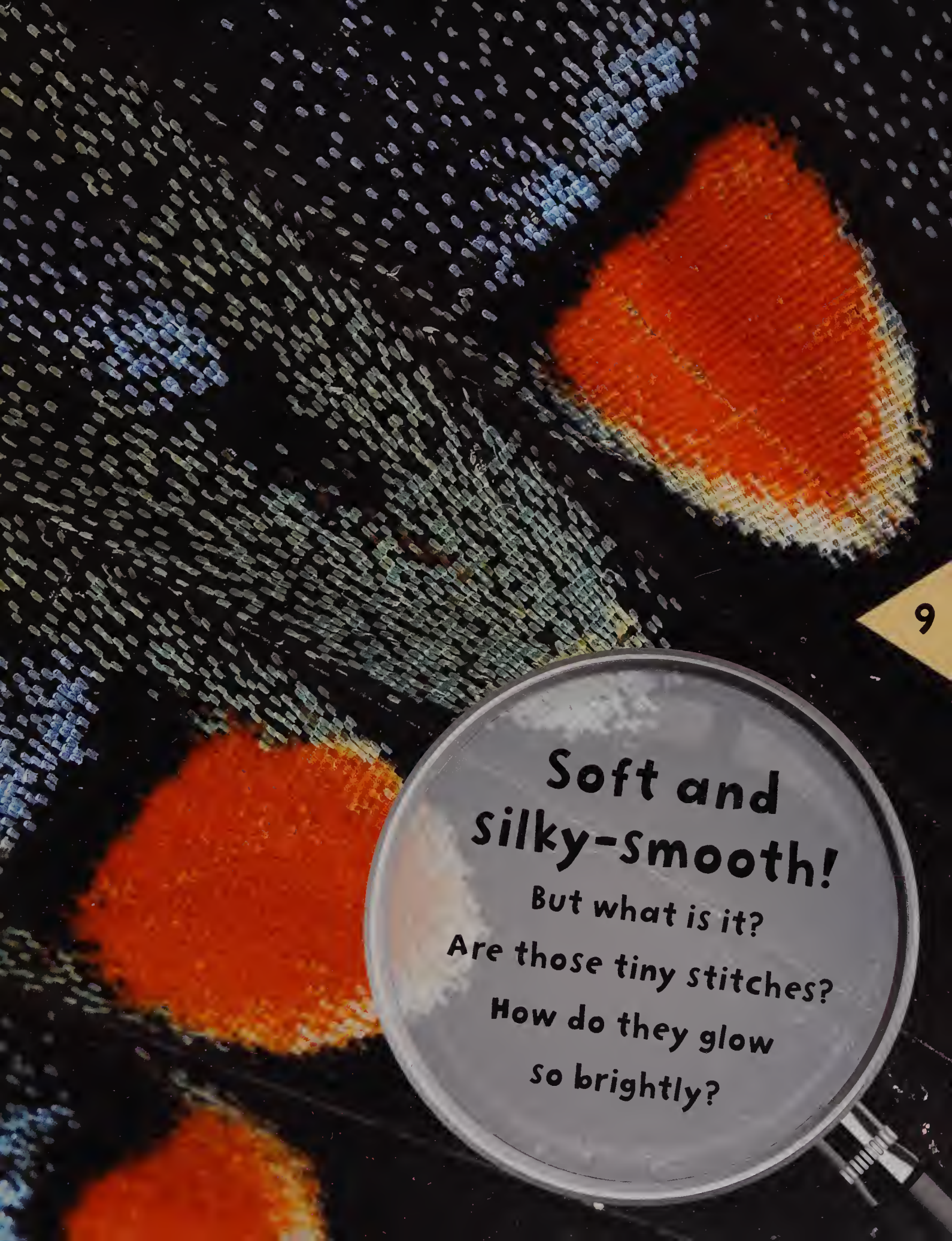
5
chimp
fish
human



8



6
alligator
shark
chameleon



**Soft and
silky-smooth!**

But what is it?

Are those tiny stitches?


**How do they glow
so brightly?**

The biggest butterfly is the Queen Alexandra's birdwing, which can measure 12 in. across. It's the jumbo jet of the insect world!




It's a butterfly!

The amazing colors are created by tiny scales that scatter light. The effect is pretty to us, pretty to the butterfly's mate, and often scary to predators.



**Curvy, swirly,
twisty, curly**

Is this a photo of paint
dissolving in water? Or is it
folds of material squished
up tightly?



The largest
cabbage meal ever
was made in 2008 in
Macedonia and
consisted of 80,191
cabbage rolls.
Yummy...

It's red cabbage!

The swirling patterns are made by tightly packed leaves. Cabbages grow by adding layer after layer of them until there are dozens, all squashed together.

**It's grass
growing on a
rainbow!**

**OK, that's not true. But what
is it, then? A tapestry?
A woven basket?**



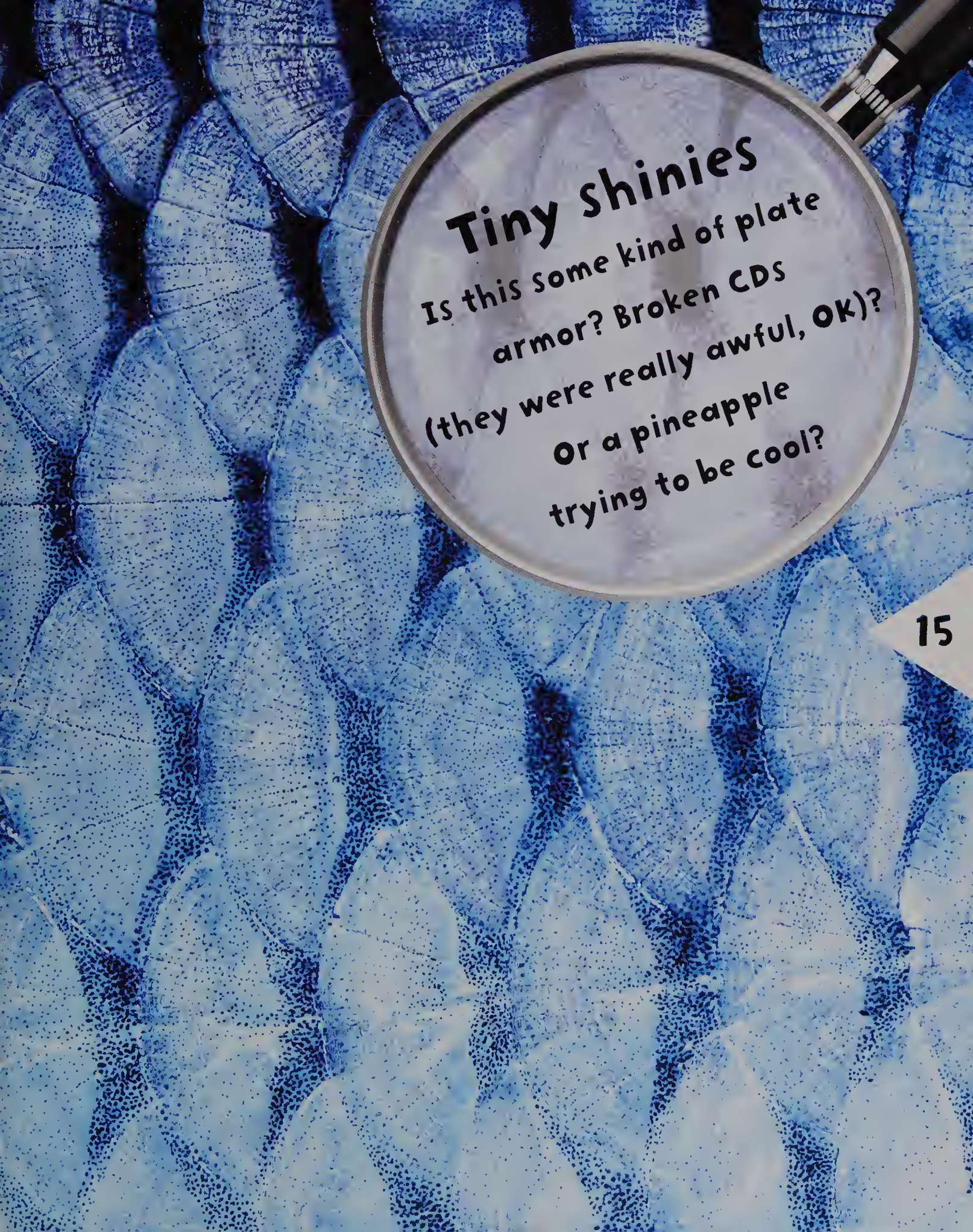
A peacock's tail feathers can measure about 5 ft. long and each one ends in a colorful "eye" known as an ocellus.

14

It's a peacock!

Mr Fancy-Tail here is a male. He's spreading his feathers in a fan to impress females (peahens).

They're gray, but they have an eye for colorful guys!



Tiny shinies

Is this some kind of plate
armor? Broken CDs
(they were really awful, OK)?
Or a pineapple
trying to be cool?


Some fish can have thousands of scales. Even huge fish like sharks have them. They're just too small for us to see.



16

It's a fish!

A fish's body is covered with small, shiny scales that overlap and produce a smooth surface. If you grab a live fish, it will slip right out of your hands.



**Bulgy bobbles
and furry fluff**

They're all the same kind of
object, though.

Guess each one, then
turn the page.

Football



Basketball

18

**Tennis
ball**



**Cricket
ball**

**Obvious, if
you just look...**


**This is quite clearly a bicycle
wheel made out of pipe
cleaners and a bit of
sponge. Isn't it?**

It's a dandelion!

Each of the little spinners is a seed, which whirls off through the air in search of a place to put down roots and grow a new plant.


20

Dandelion seeds can fly up to 5 miles away from the mother plant before finally settling down to grow.



**Curled up,
swirled up**

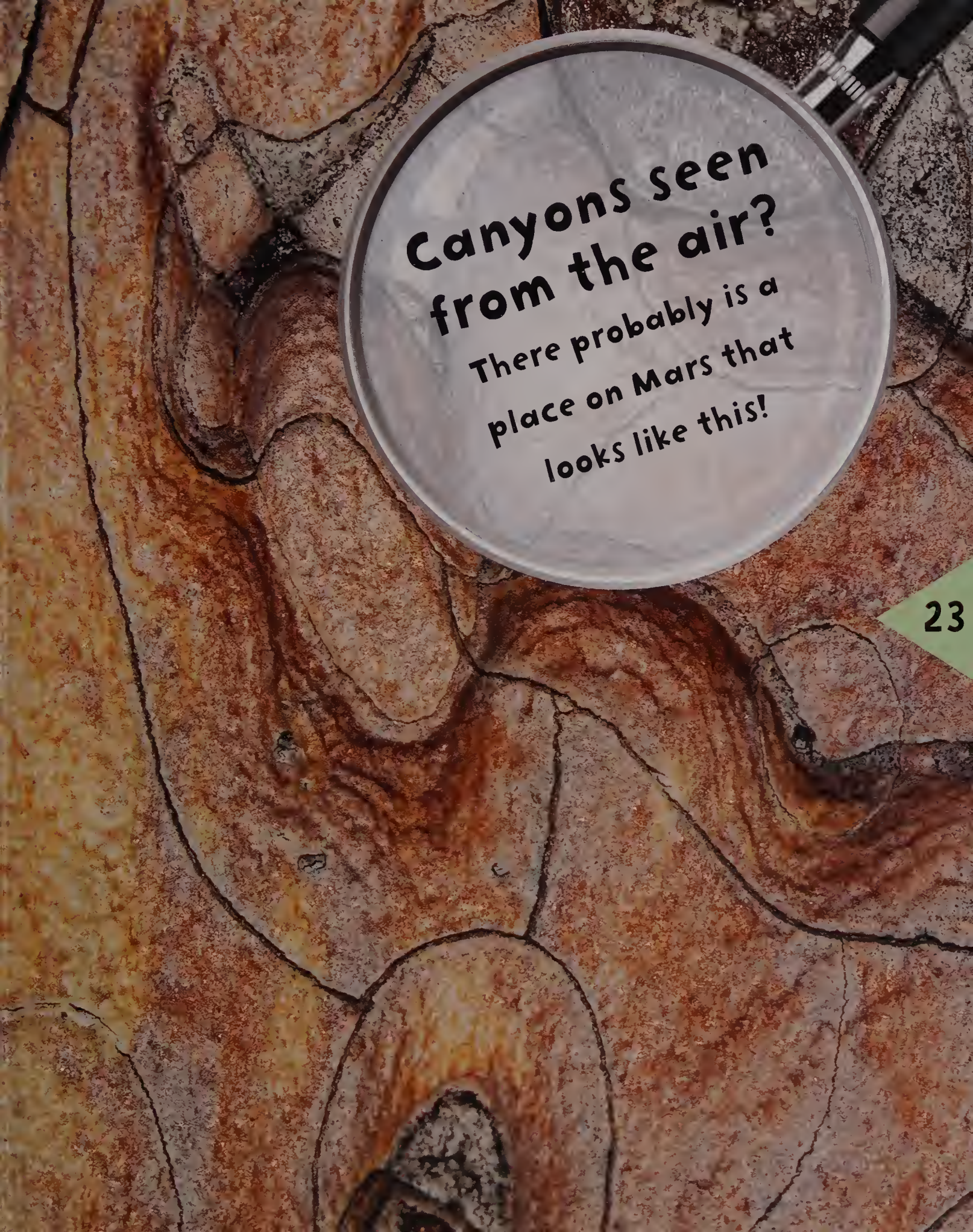
*Is this a view inside
your body? Or is it the
weird outside of
someone else's?*



The word "millipede" means "thousand feet." However, the most feet any millipede has is about 750.


It's a millipede!

A millipede has a body that is made up of hundreds of parts called segments. Have you ever held a millipede? It feels like being tickled!



Canyons seen from the air?

**There probably is a
place on Mars that
looks like this!**



Cork stoppers are made from tree bark. There's even a variety called (wait for it) the cork tree, which grows in Mediterranean countries.

24

It's a tree!

The outside of a tree trunk is covered in tough bark. It's like the tree's version of skin, and protects its insides from getting damaged.

**Tree rings,
obviously!**

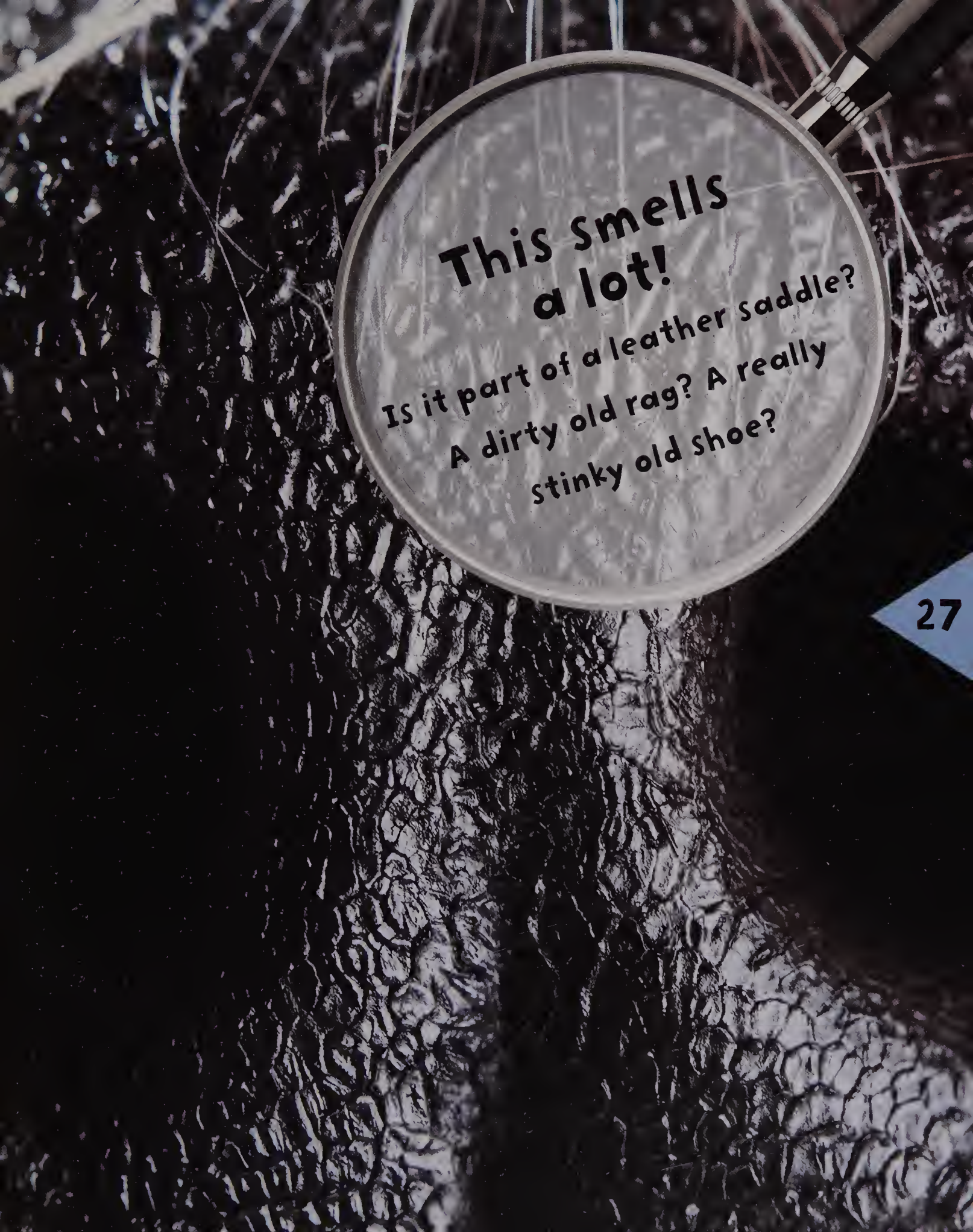
But a tree was the previous
answer...

It's a tortoise!

A tortoise has a shell on its back. It can pull in its head and legs to protect itself from other animals that may want to eat it!


Tortoises can live for a very long time. Some have lived for more than 150 years!



A black and white photograph of a magnifying glass held over a piece of crumpled paper. The magnifying glass is positioned in the upper right quadrant, with its handle extending towards the top right corner. The lens of the magnifying glass is focused on a small, circular area of the crumpled paper, which is the source of the text. The background is a dense, textured surface of crumpled paper, creating a complex, organic pattern of light and shadow. The overall tone is dark and moody, with high contrast between the bright highlights on the paper and the deep shadows in the folds.

**This smells
a lot!**

Is it part of a leather saddle?
A dirty old rag? A really
stinky old shoe?



A dog's sense of
smell can be more
than a million times
better than yours.

28

It's a dog's nose!

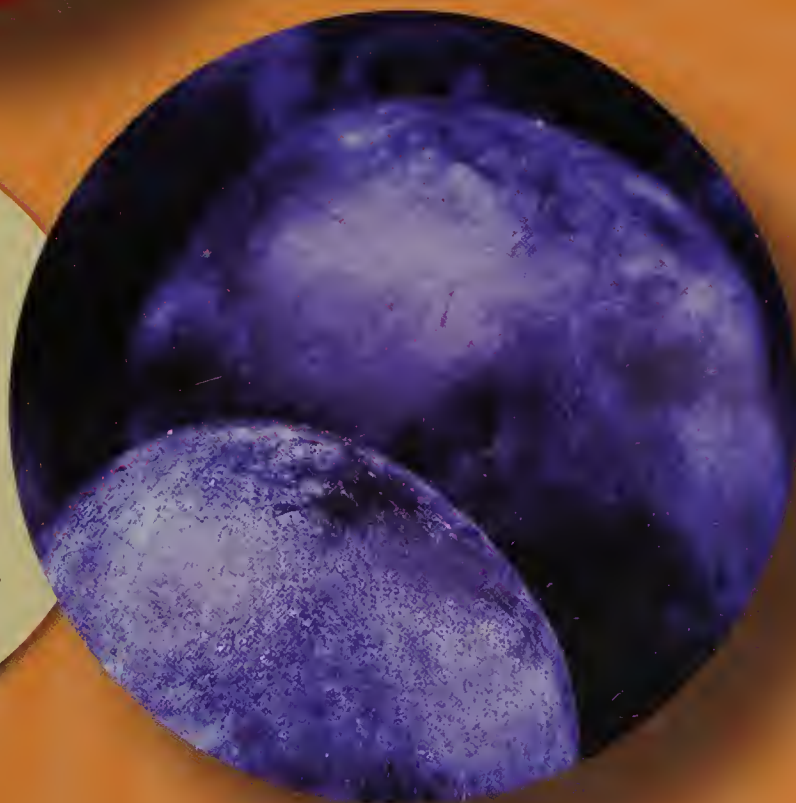
The tip of a dog's nose is usually wet. This helps it to sniff the air and work out where a smell is coming from.

Can you tell which fruit these pictures show?

Answers at the bottom of page 30.



1
pomegranate
cherries
redcurrants



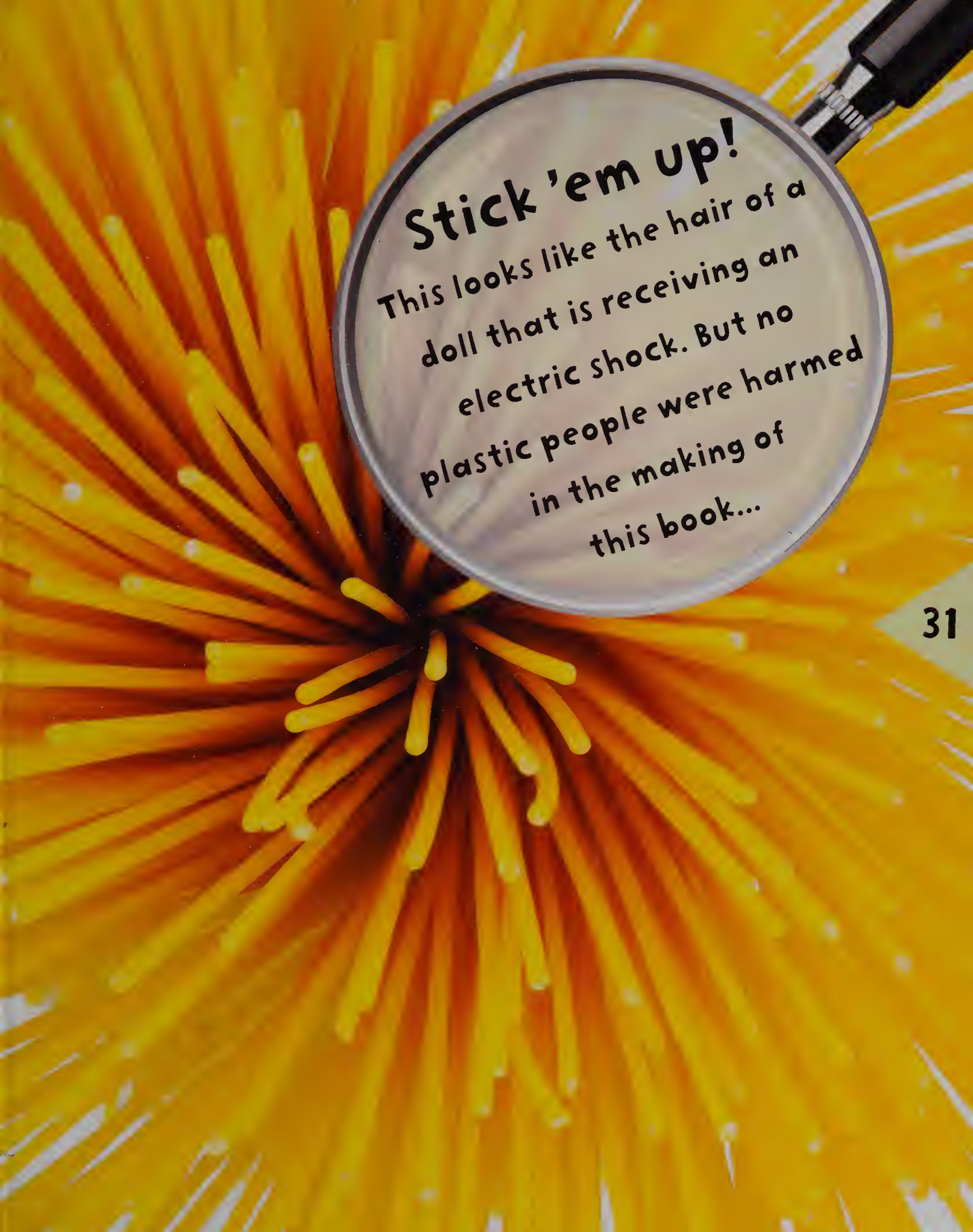
2
plums
grapes
blueberries

3
grapes
apples
limes



4
apples
redcurrants
cherries



A magnifying glass with a black handle is positioned over a dense bundle of yellow sticks, likely straws, that radiate from a central point. The background is a bright yellow with white streaks, suggesting a dynamic or energetic scene. The magnifying glass's lens is centered on the sticks, and the text is written inside the lens area.

Stick 'em up!
This looks like the hair of a
doll that is receiving an
electric shock. But no
plastic people were harmed
in the making of
this book...


A close-up photograph of a silver fork with a generous portion of yellow spaghetti twirled around its tines. The spaghetti strands are long and thin, some extending outwards in a loose, looping pattern against a solid light blue background. In the upper right quadrant, a white, circular speech bubble contains text. The page number '32' is printed in black on a yellow triangular shape on the left side.

*Spaghetti gets its
name from
the Italian word
meaning "thin string."*

32

It's spaghetti!

Spaghetti is long, thin strings of pasta. It's also embarrassment on a plate if you have to eat it in public. Sauce in your hair, on the table, possibly up your nose...

A close-up photograph of several pieces of golden-brown, cooked chicken. One piece in the foreground has a prominent, deep longitudinal gap running down its center. A magnifying glass is positioned over this piece, highlighting the texture and the gap. The background shows other pieces of chicken, some slightly out of focus.


**Bumpy, lumpy,
veiny...**

**Brain? Hopefully not,
with that big gap down
the middle.**


It's a walnut kernel!

Until 140 years ago you'd have been jumping on walnuts to try to crack them. The nutcracker was invented in 1878, by Henry Quackenbush.

34



The biggest nut is the coco de mer. It measures up to 20 in. and can weigh 66 lb.



It's green!

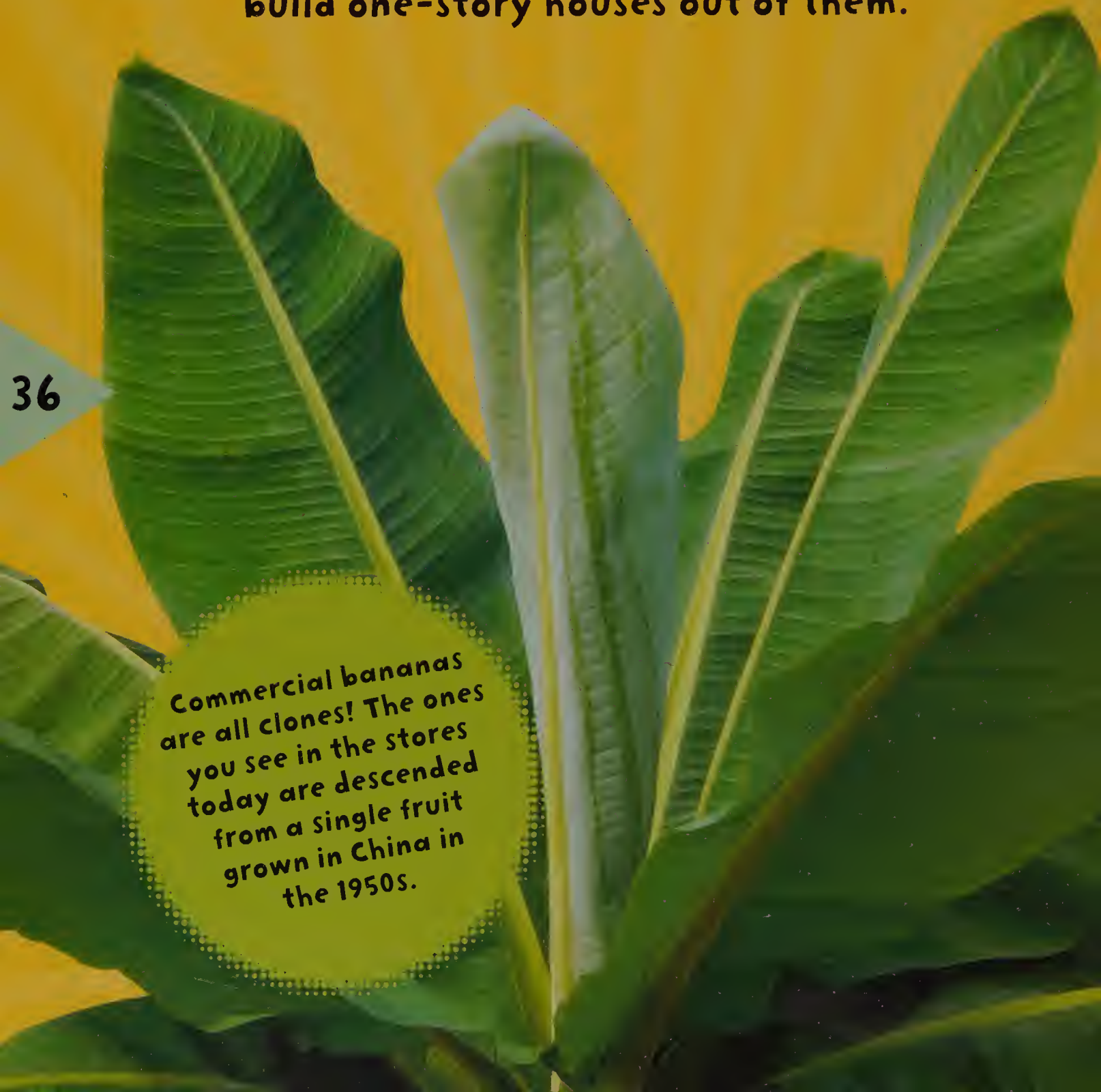
**(We just thought you might
need a helpful hint.)**

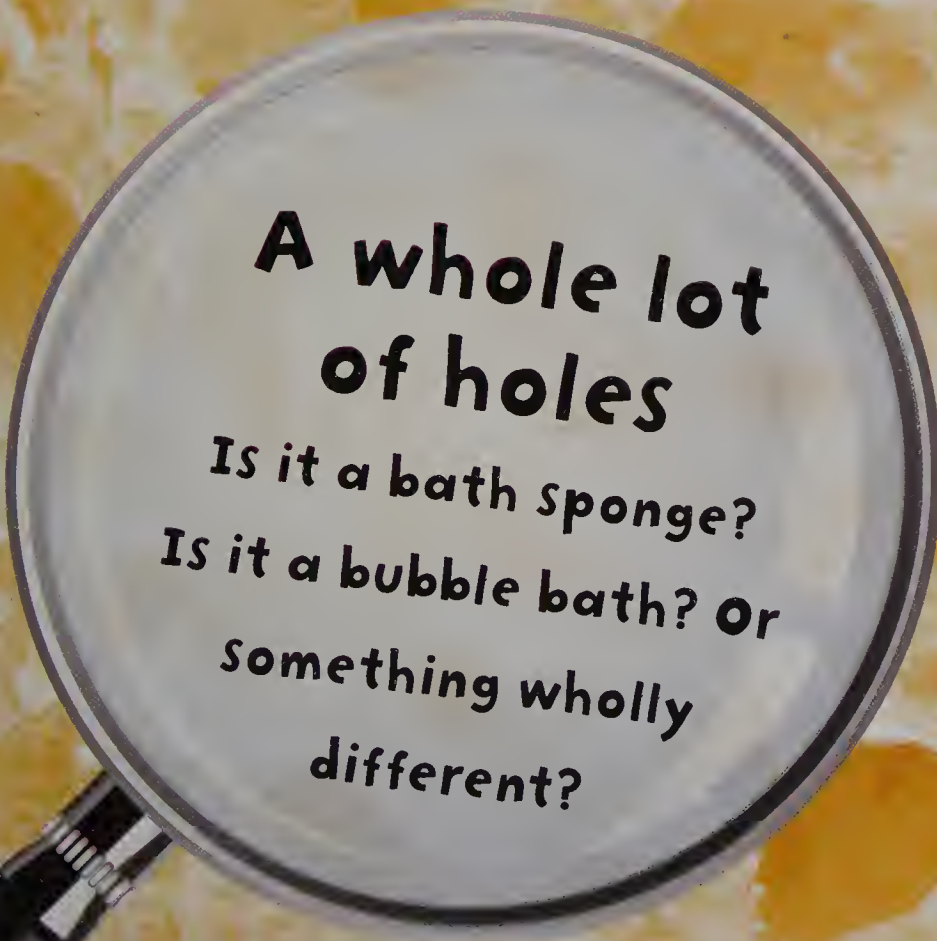
It's a leaf!

These huge leaves are from the banana plant. They're so sturdy and weatherproof that you can build one-story houses out of them.

36

Commercial bananas are all clones! The ones you see in the stores today are descended from a single fruit grown in China in the 1950s.





A whole lot of holes

**Is it a bath sponge?
Is it a bubble bath? Or
something wholly
different?**


It's bread!

Bread is made of flour and water. If you add yeast too, the bread "rises"—bubbles of air appear inside it as it's baked. Light and fluffy!



38

Bread is one of the oldest foods made by people. Evidence shows it was being produced more than 12,000 years ago.



What's this lot?

Grains of colored sugar?

A microscopic view

of germs having a

family reunion?

It's a Carpet!

Carpets are made from threads of material woven together to make a soft surface. Some are pretty luxurious—in 2008 a silk rug sold for \$4.5 million!

The idea that red carpets are only for important people is believed to go back to Ancient Greece, when purple and deep red were thought of as the colors of the gods.



1

2

Different coats for different folks

Who lives inside these skins?

Turn the page to find out.

41

3

1
starfish




42

2
polar bear



3
chameleon

A magnifying glass is positioned over a large field of popcorn. The popcorn is a mix of yellow and orange colors. The magnifying glass's lens is focused on a small area of popcorn, making it appear larger and more detailed. The handle of the magnifying glass is visible in the top right corner.

Spiral stumper
Mmm, it's a bag of banana-
flavored popcorn! Isn't it?

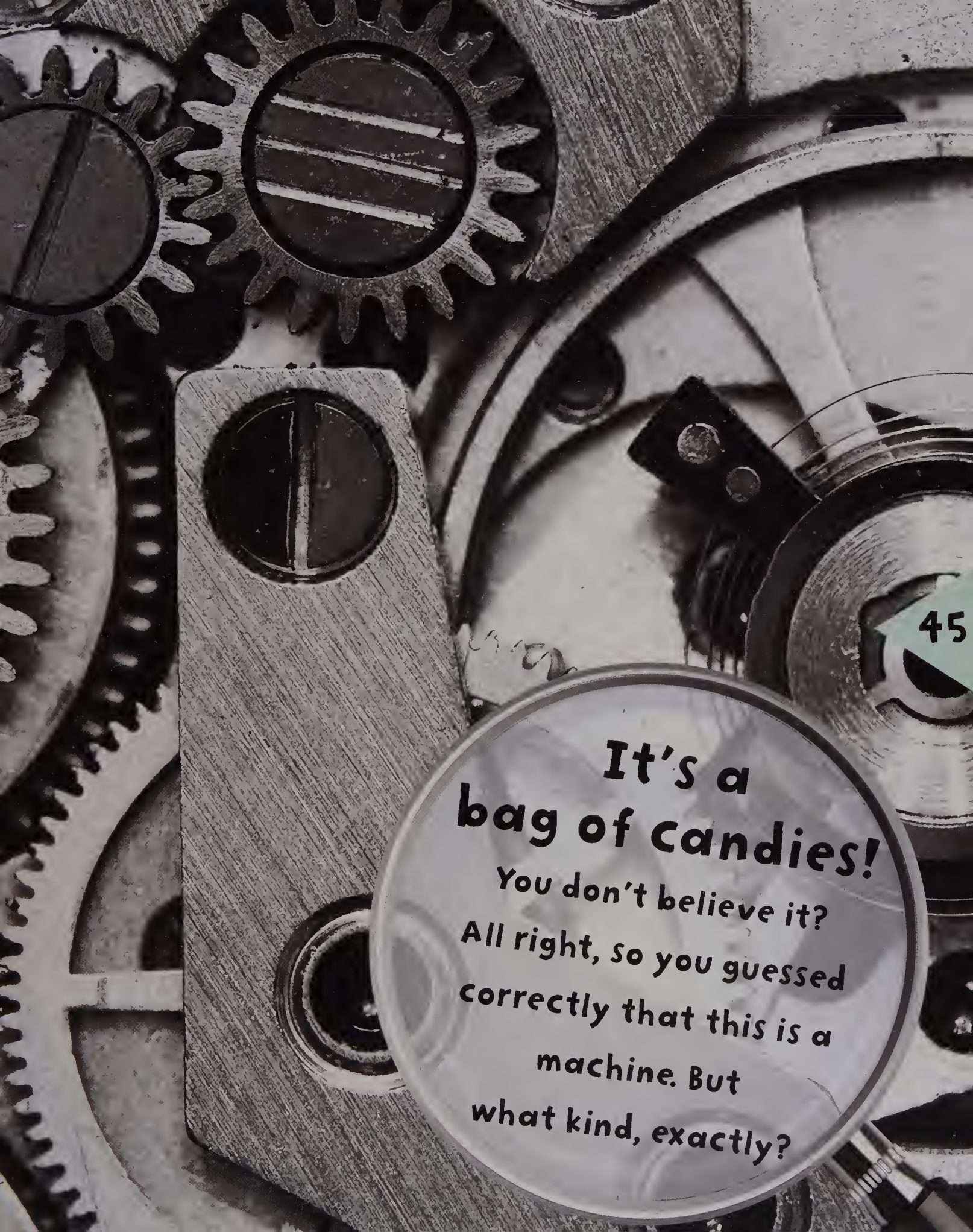
It's a sunflower!

Each sunflower can have up to 2,000 seeds in its head.

**They're often eaten as snacks, or turned into
sunflower oil for cooking.**

44

**The tallest ever
sunflower was grown in
Germany and measured
27 ft. tall.**



**It's a
bag of candies!**

You don't believe it?
All right, so you guessed
correctly that this is a
machine. But
what kind, exactly?

45

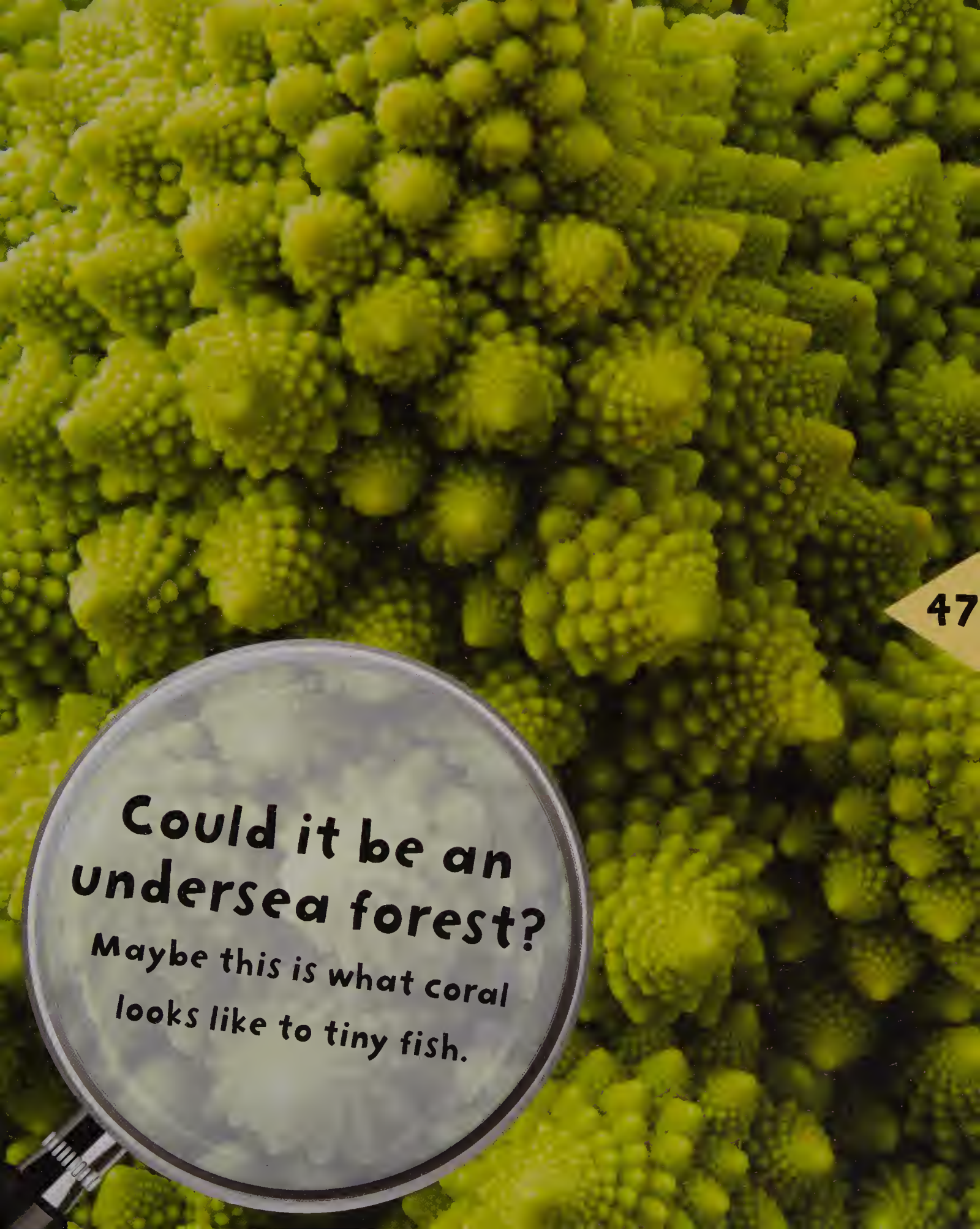
The first watches were
made more than
500 years ago.

46




It's a watch!

Watches contain a lot of tiny,
precise cogs that make the hands
move at exactly the right speed.



**Could it be an
undersea forest?**

Maybe this is what coral
looks like to tiny fish.



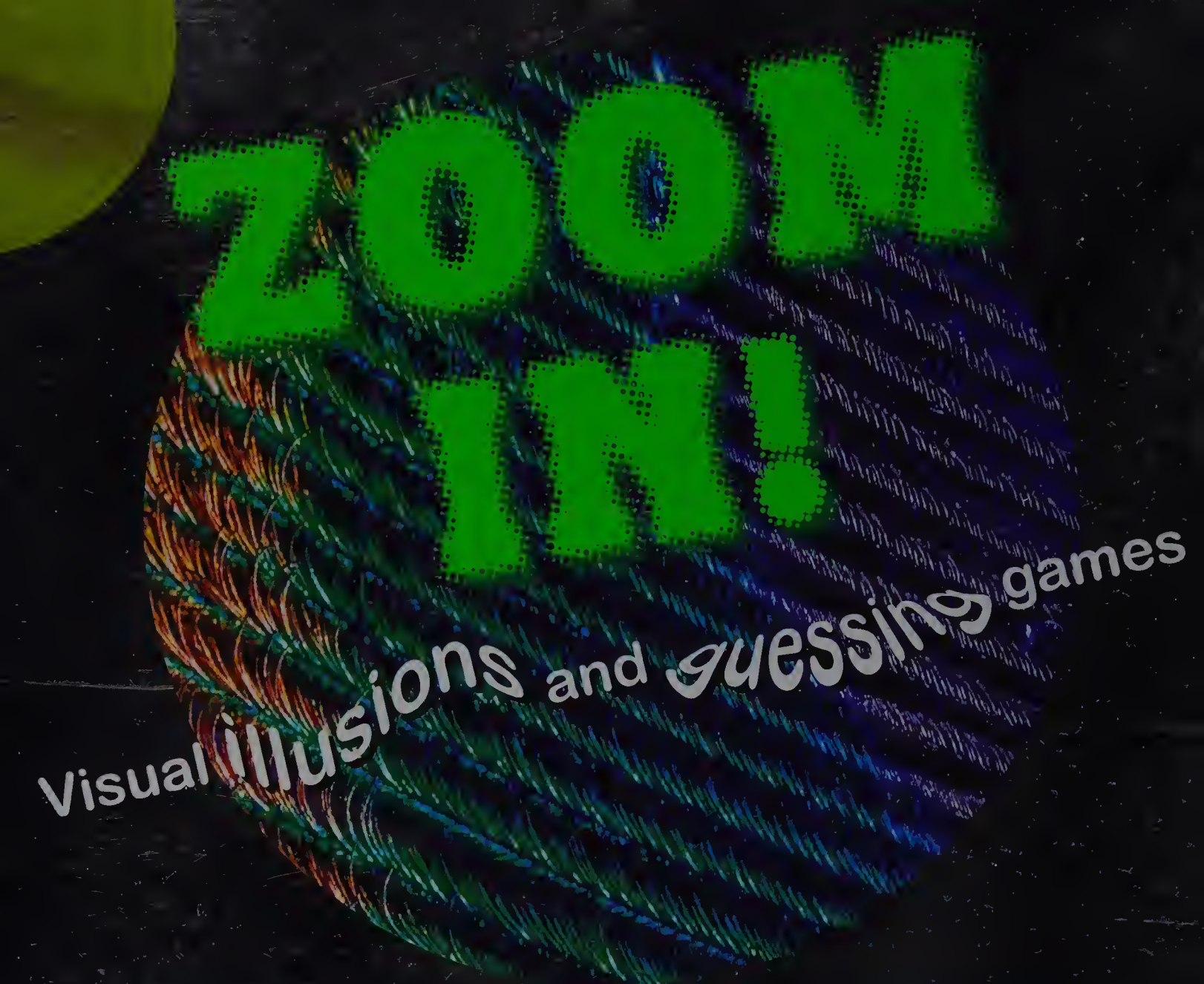
Romanesco florets are fractal, meaning each bud in the spiral is made of a series of smaller buds. (In other words, they're your math homework come to life!)

48

It's a cauliflower!

This variety is called Romanesco. It's a genetic cross between cauliflower and broccoli and it tastes nutty.

As you might expect!



Visual illusions and guessing games

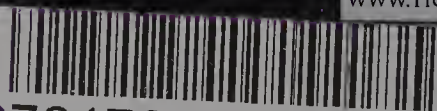
Imagine an ordinary object like an eye or the head of a fly, magnified a hundred times. It would look pretty weird, wouldn't it?

This book is full of amazing super-magnified images.

It's down to you to guess what they are!

Ticktock

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