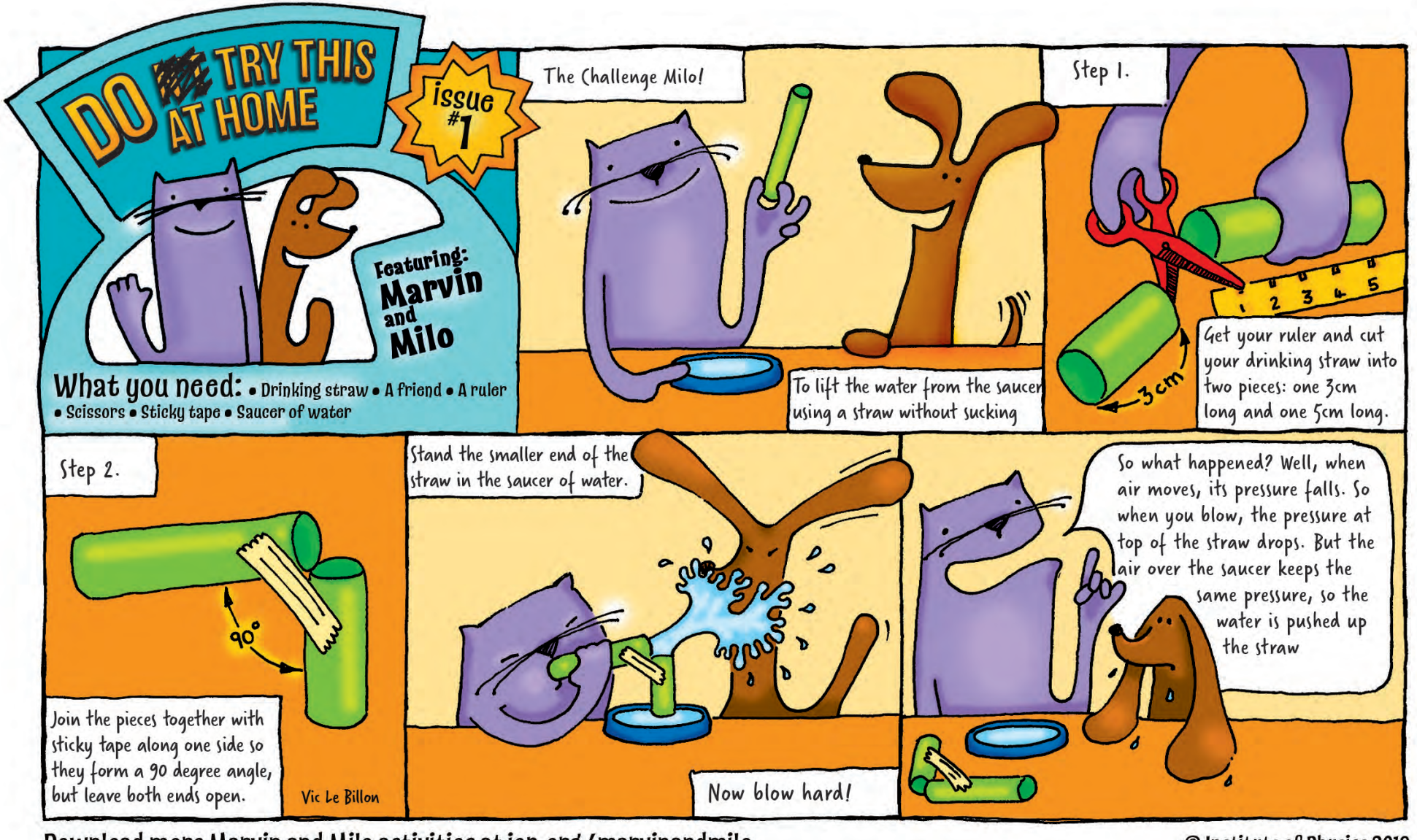

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issue #3

Featuring: Marvin and Milo

What you need: • A microwave • A bar of quality soap

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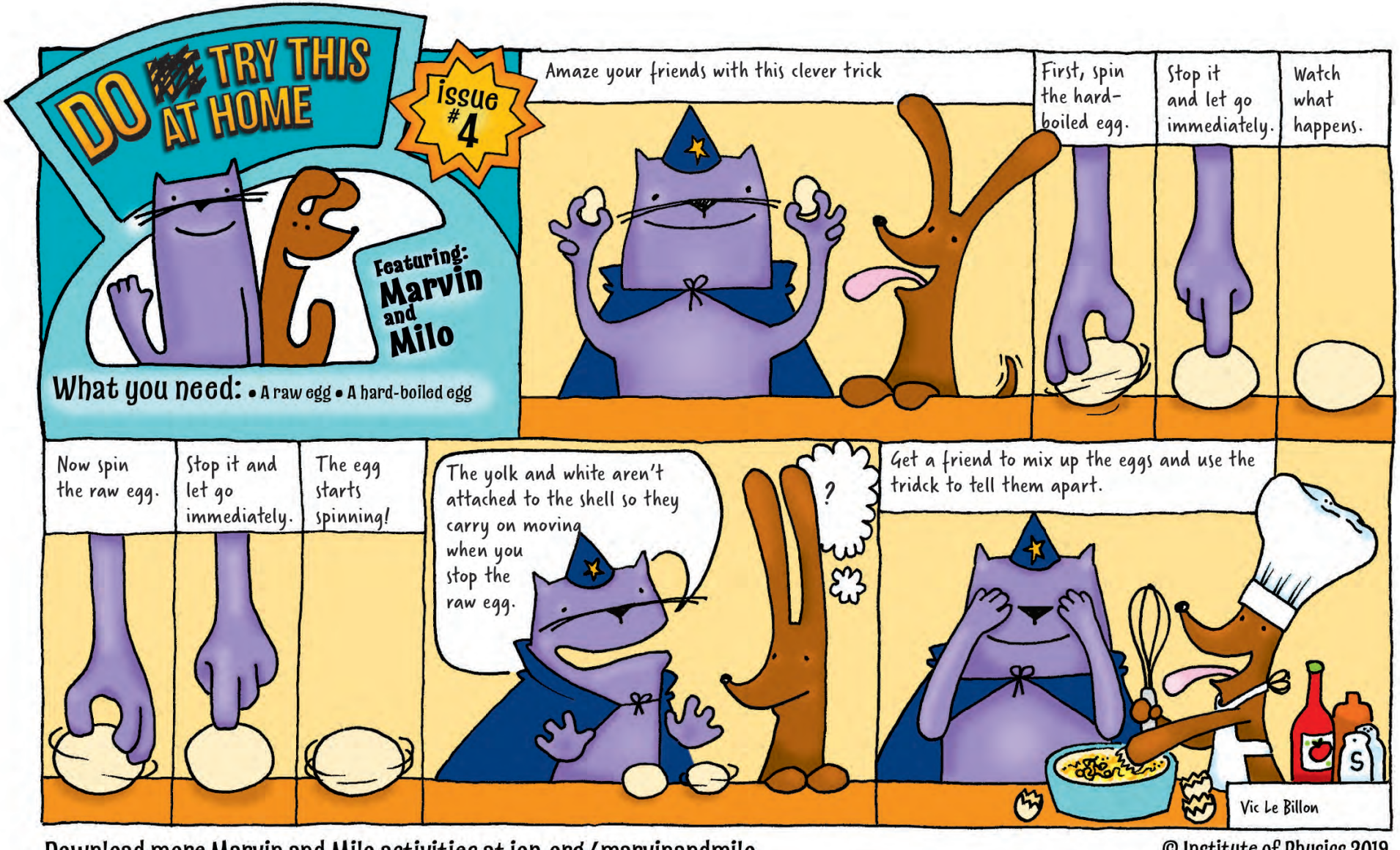

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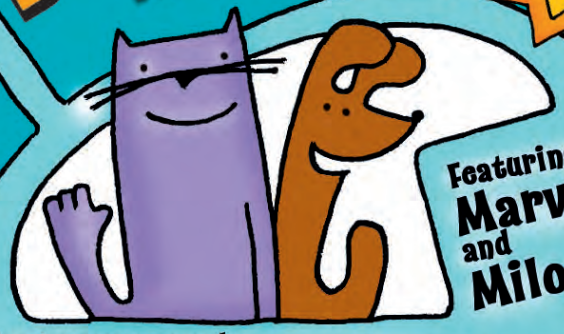
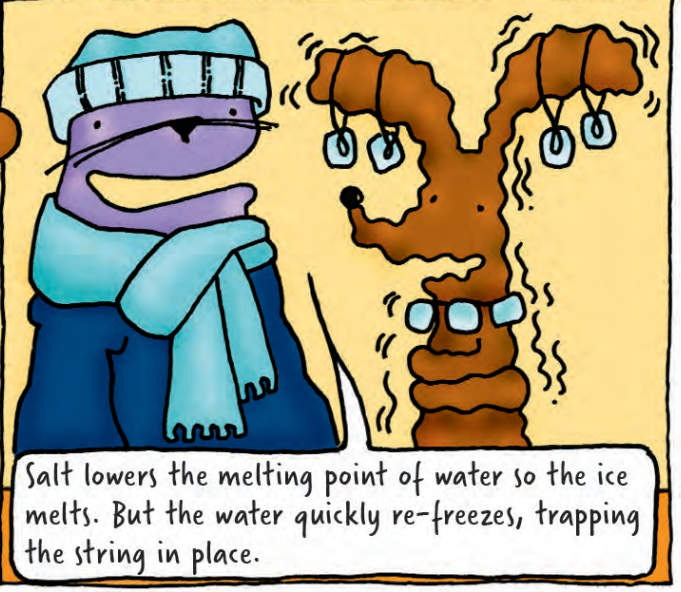
issue #5



Featuring: Marvin and Milo

What you need: • Salt • A cup of cold water • 20cm of sewing thread • An ice cube

Lay one end of the thread (or a loop) on the top of the ice cube.



Salt lowers the melting point of water so the ice melts. But the water quickly re-freezes, trapping the string in place.

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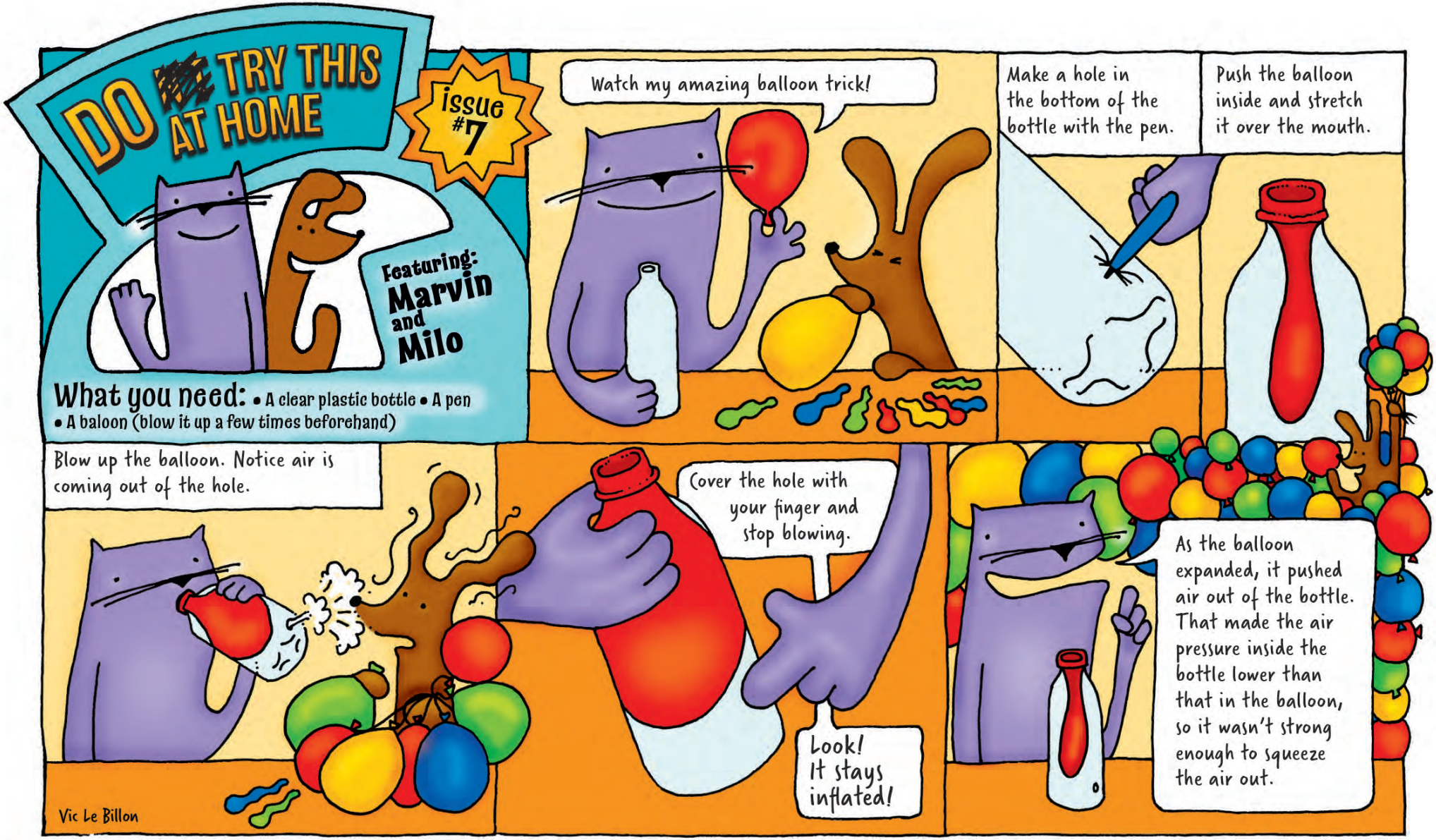

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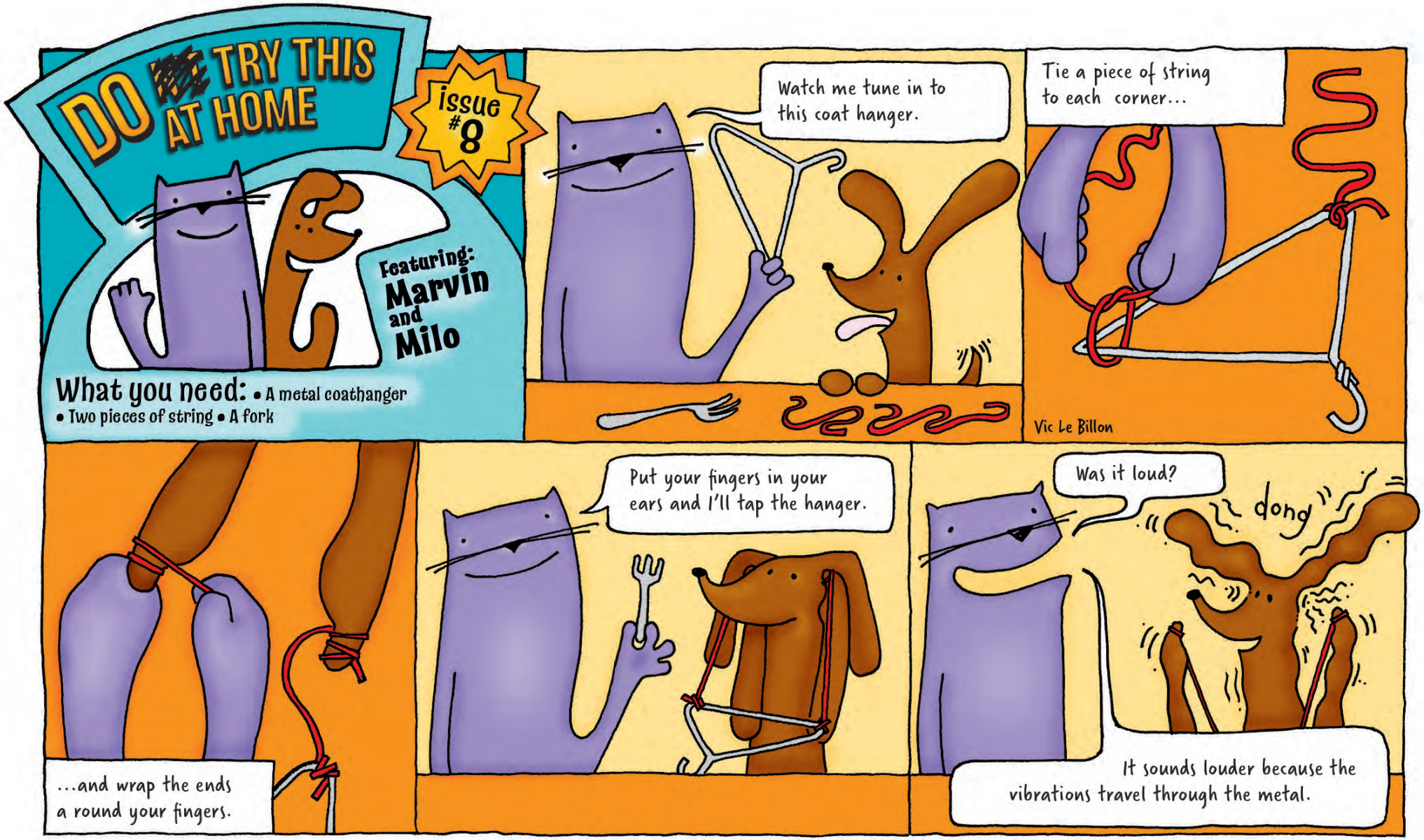

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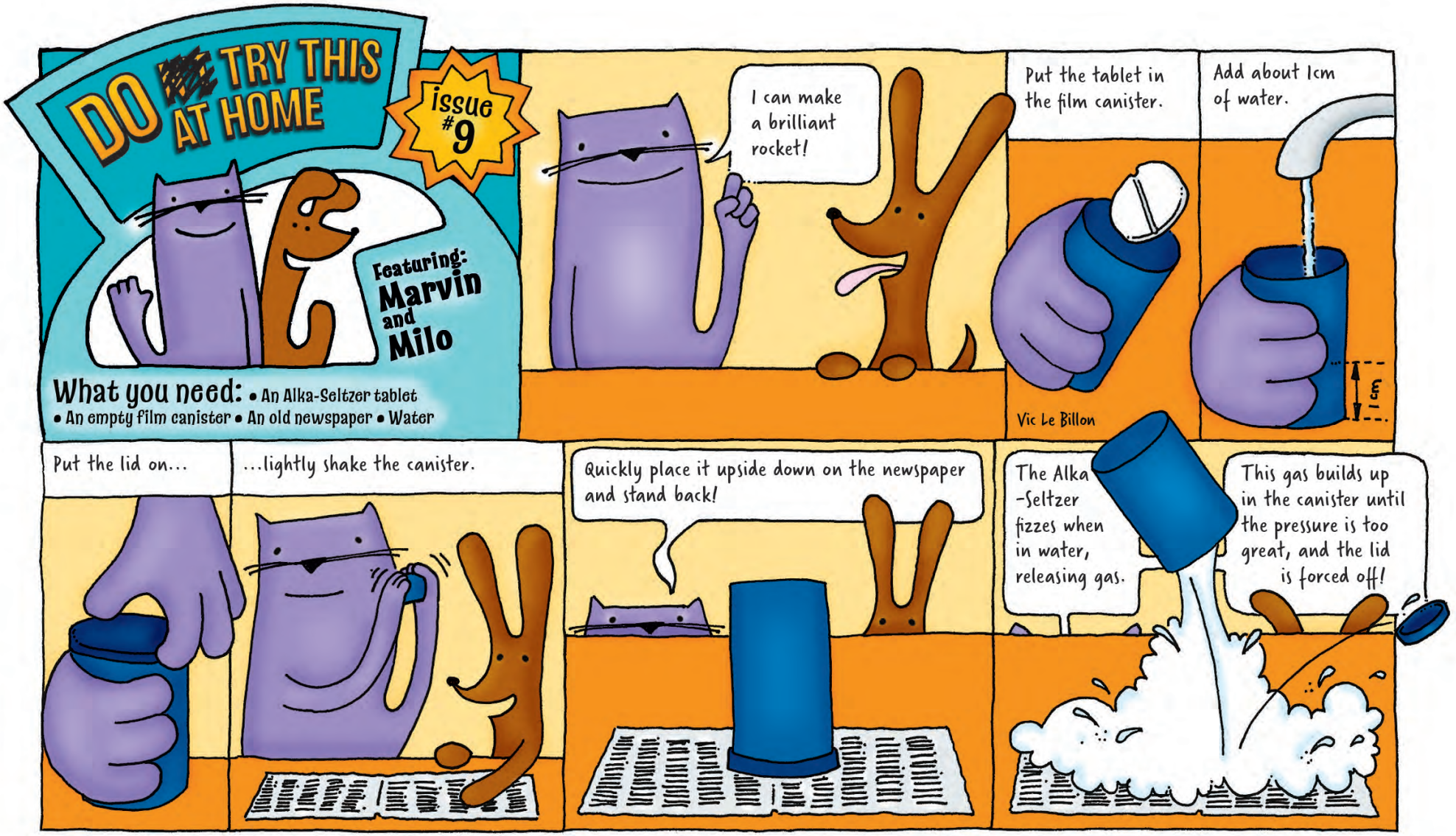

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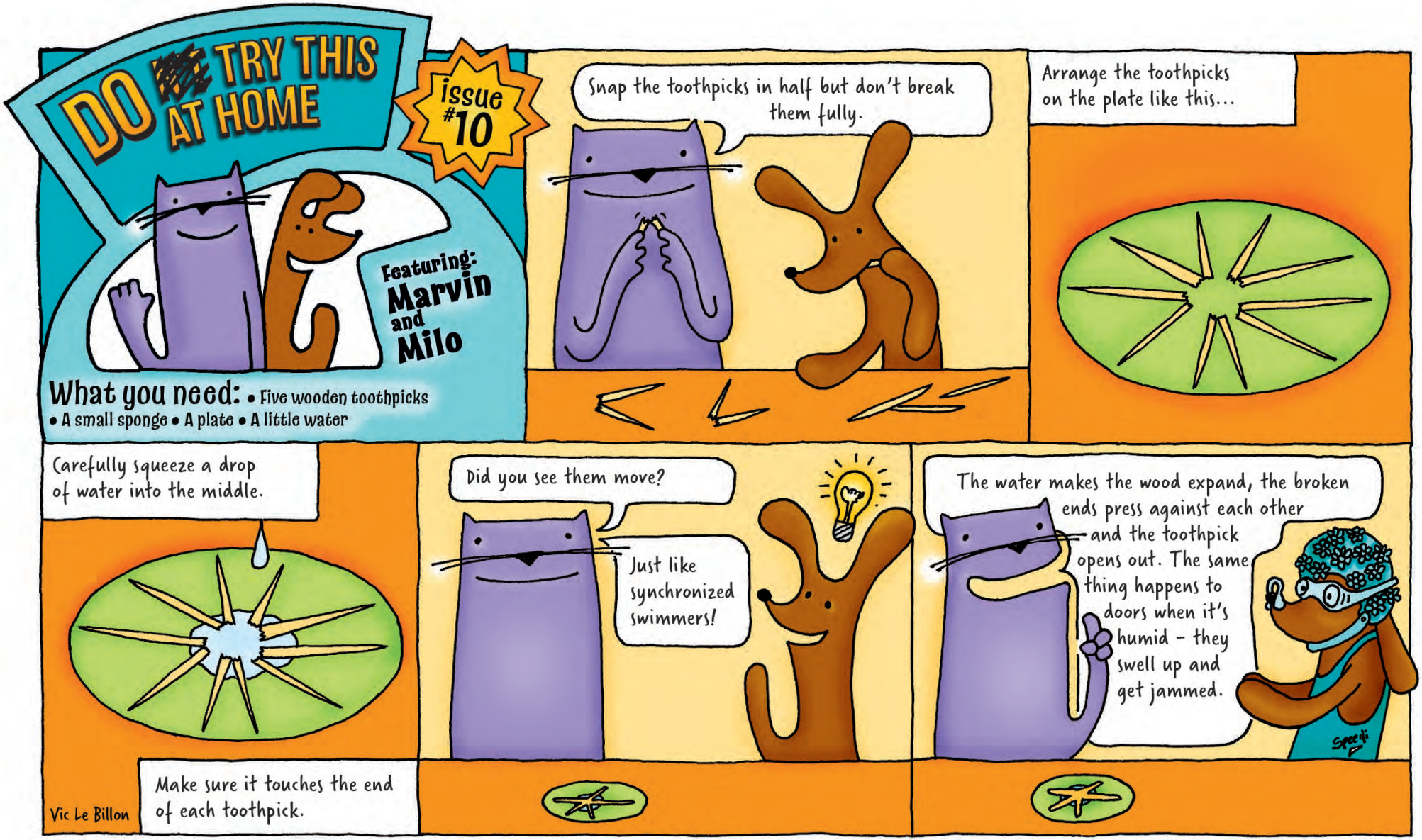

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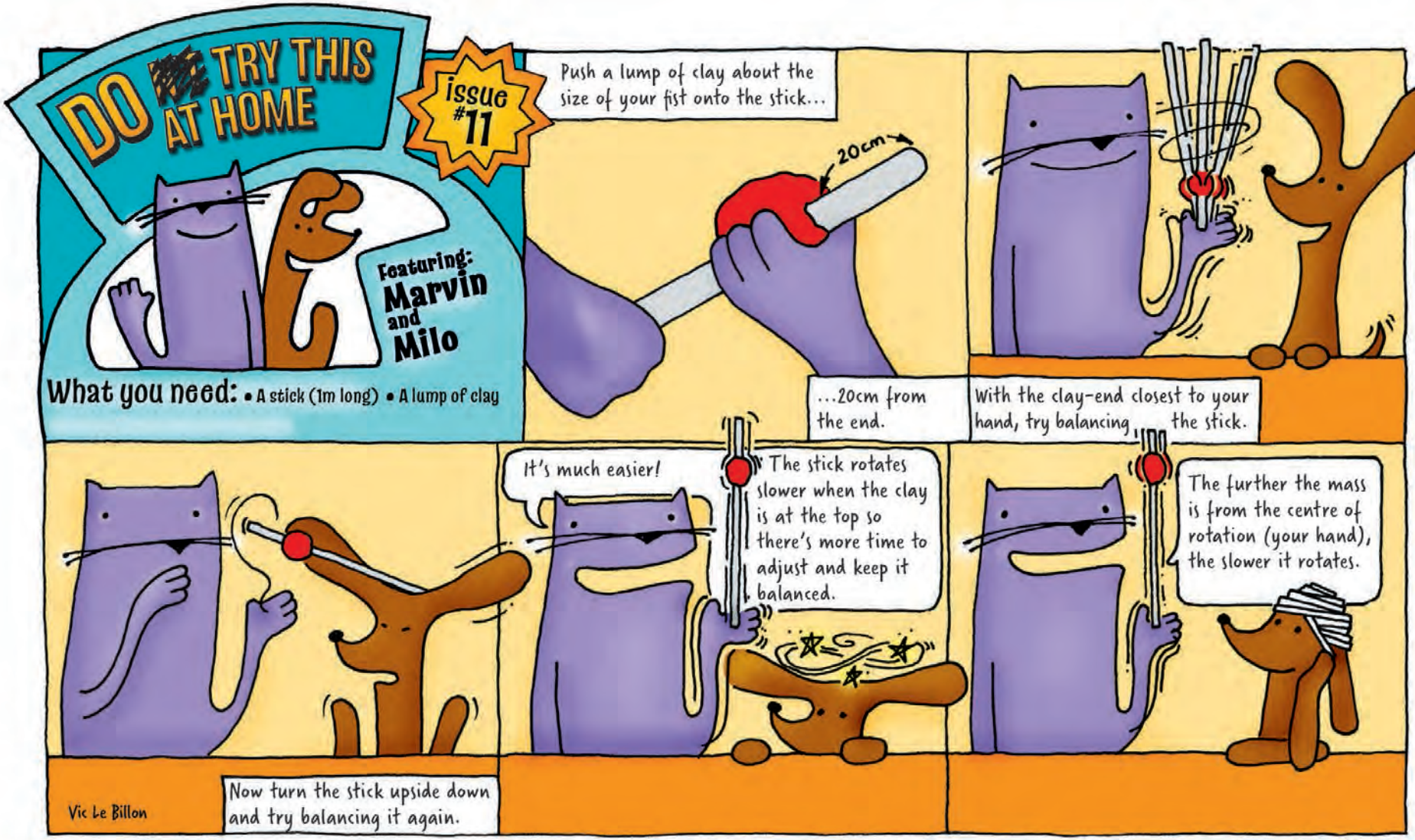

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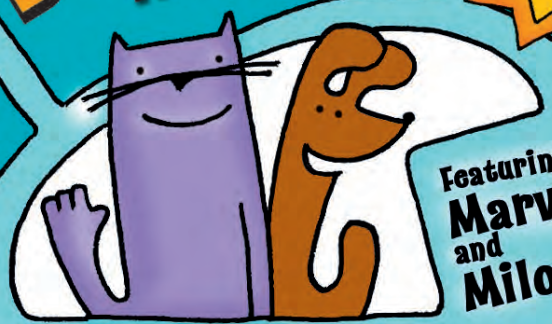
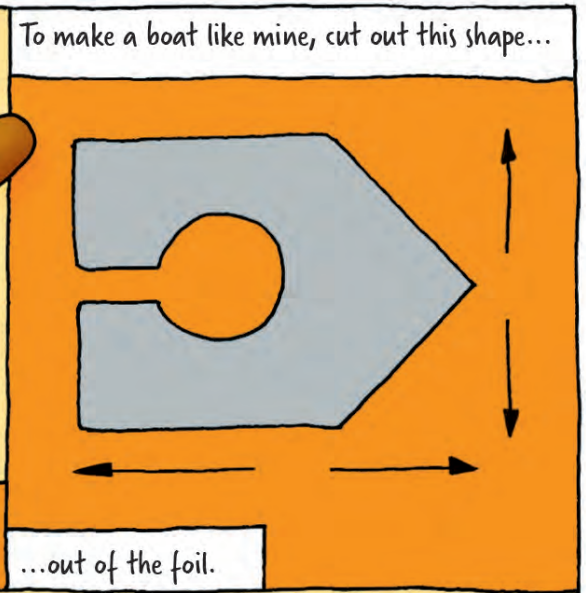
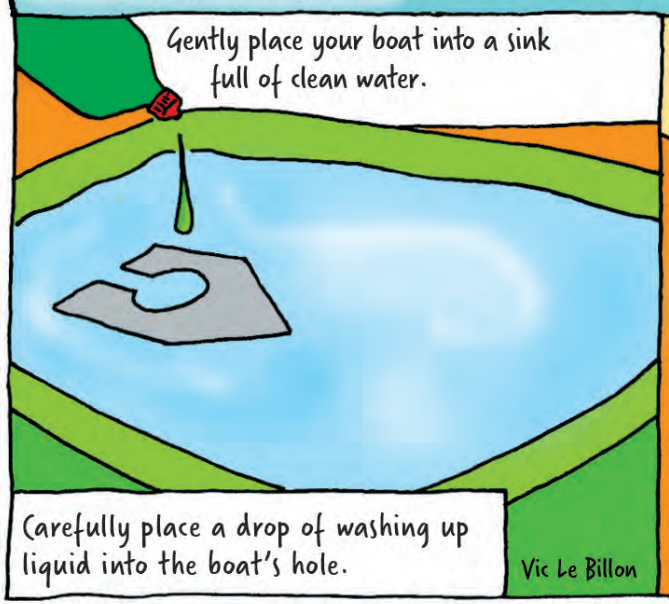


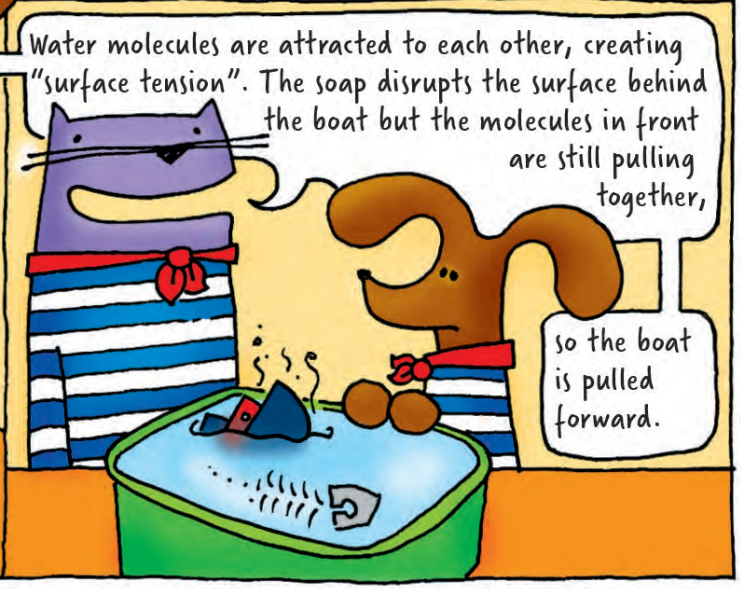
Featuring: Marvin and Milo

What you need: • Piece of foil • Scissors • Washing-up liquid • Sink or bath





Vic Le Billon



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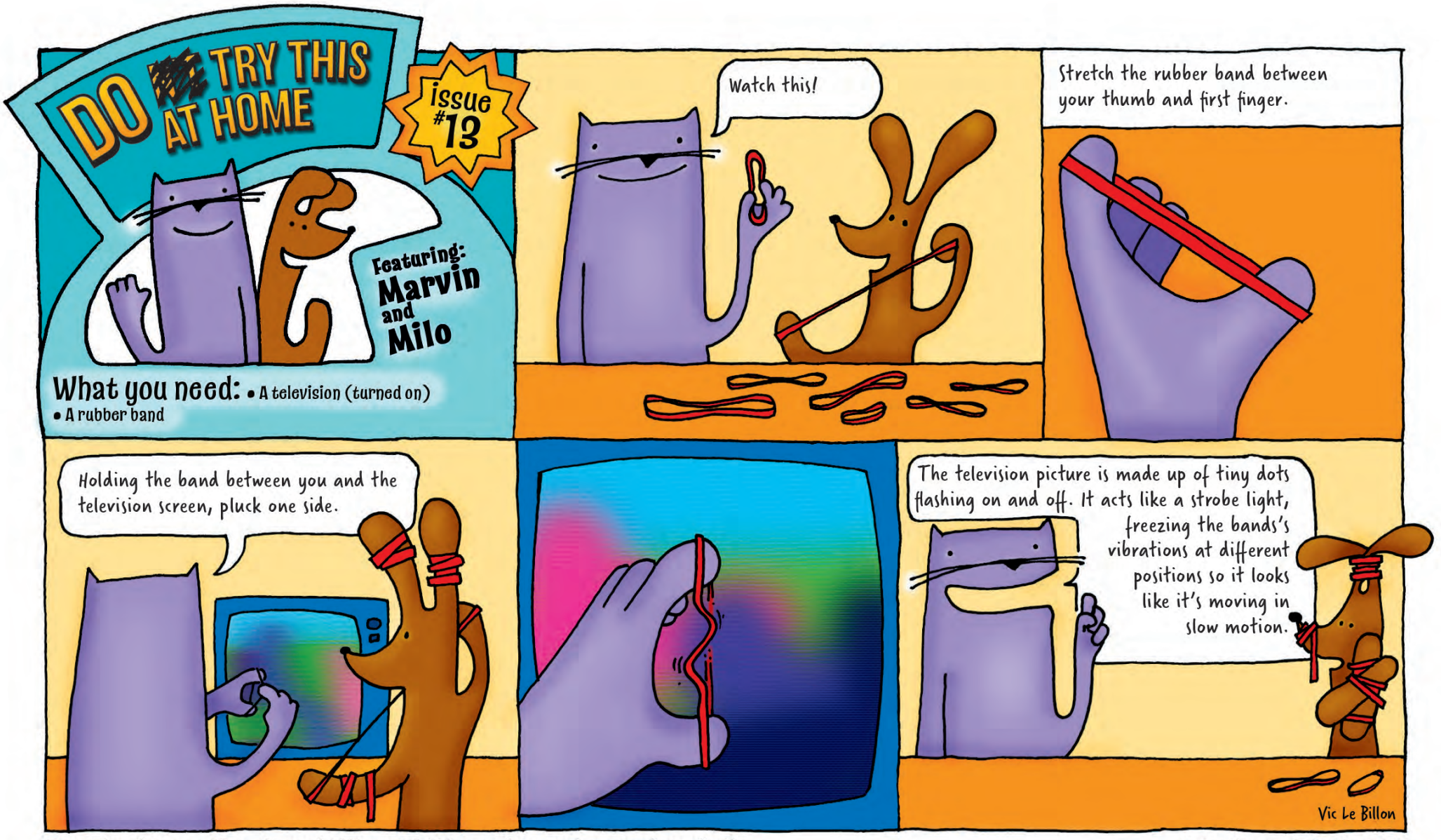

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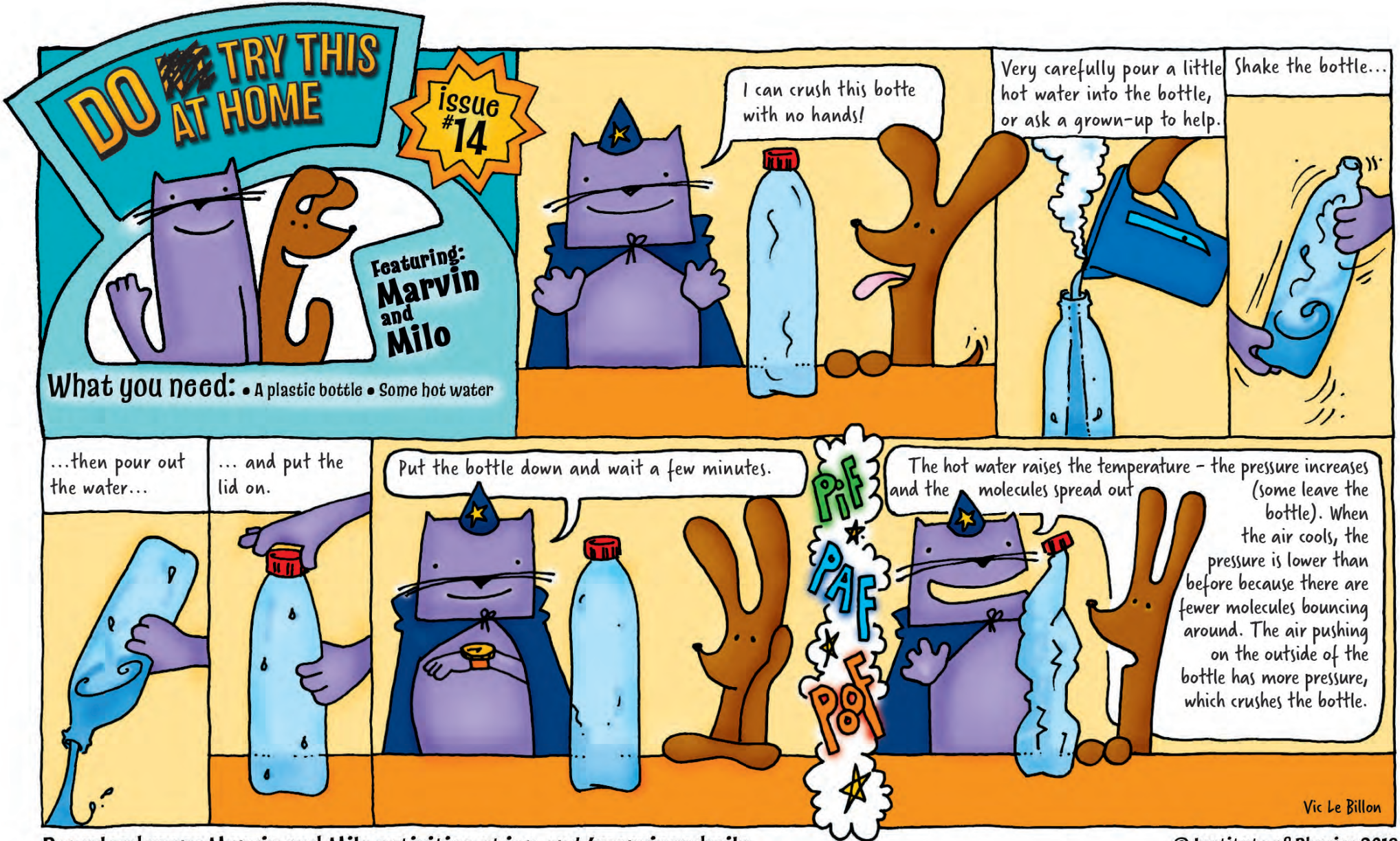

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issue #15

Featuring: Marvin and Milo

What you need: • A sheet of paper • Cotton thread • Scissors

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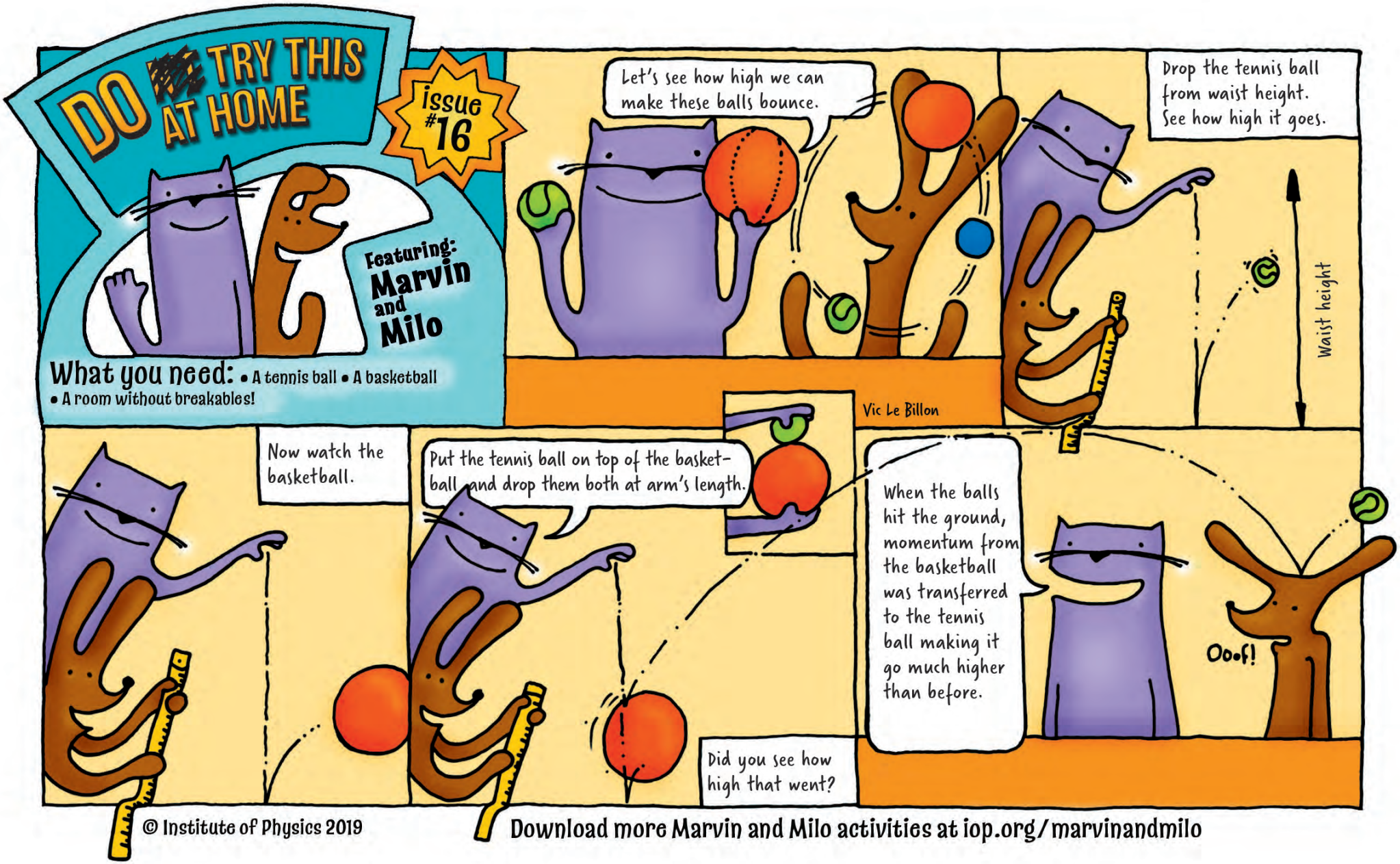

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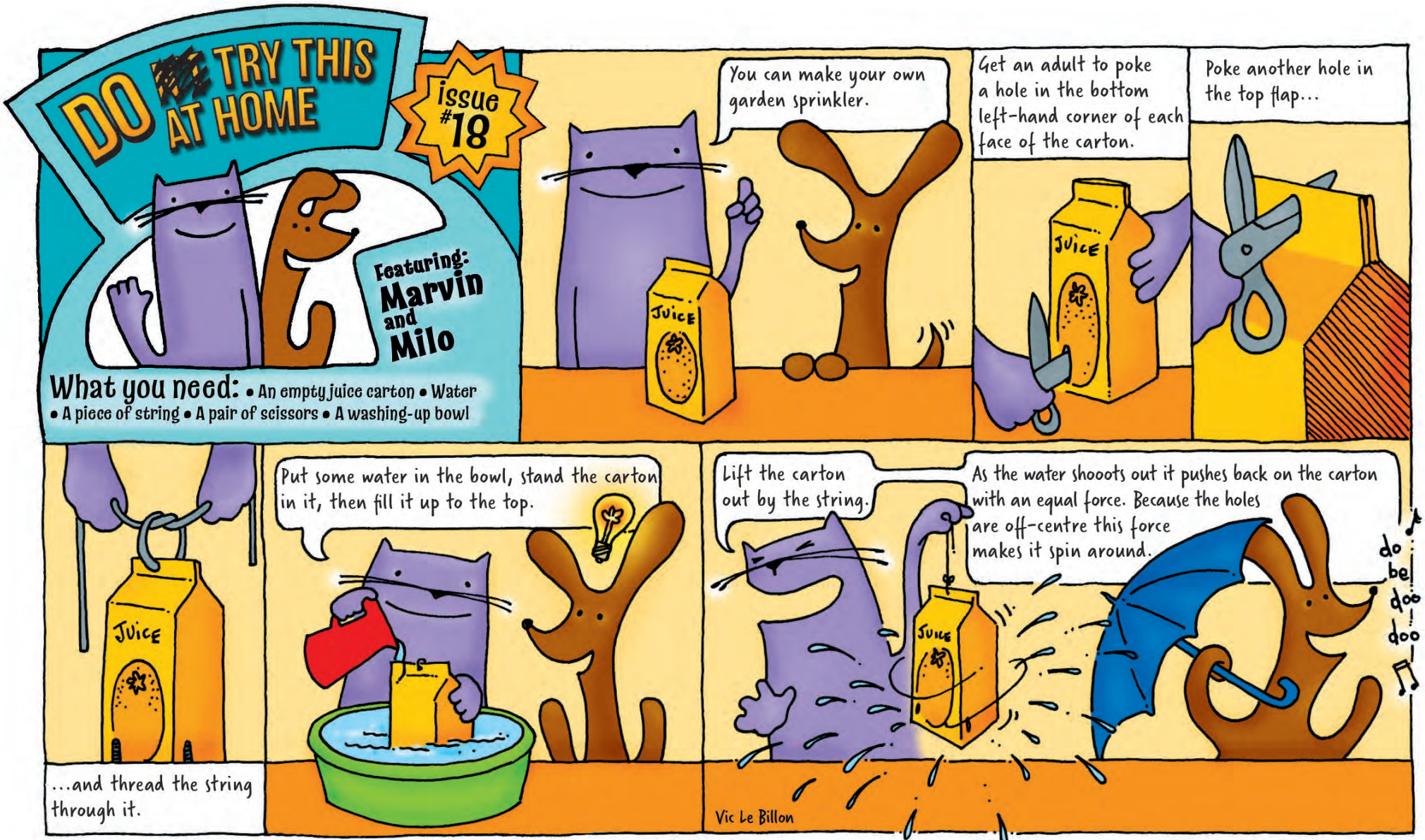

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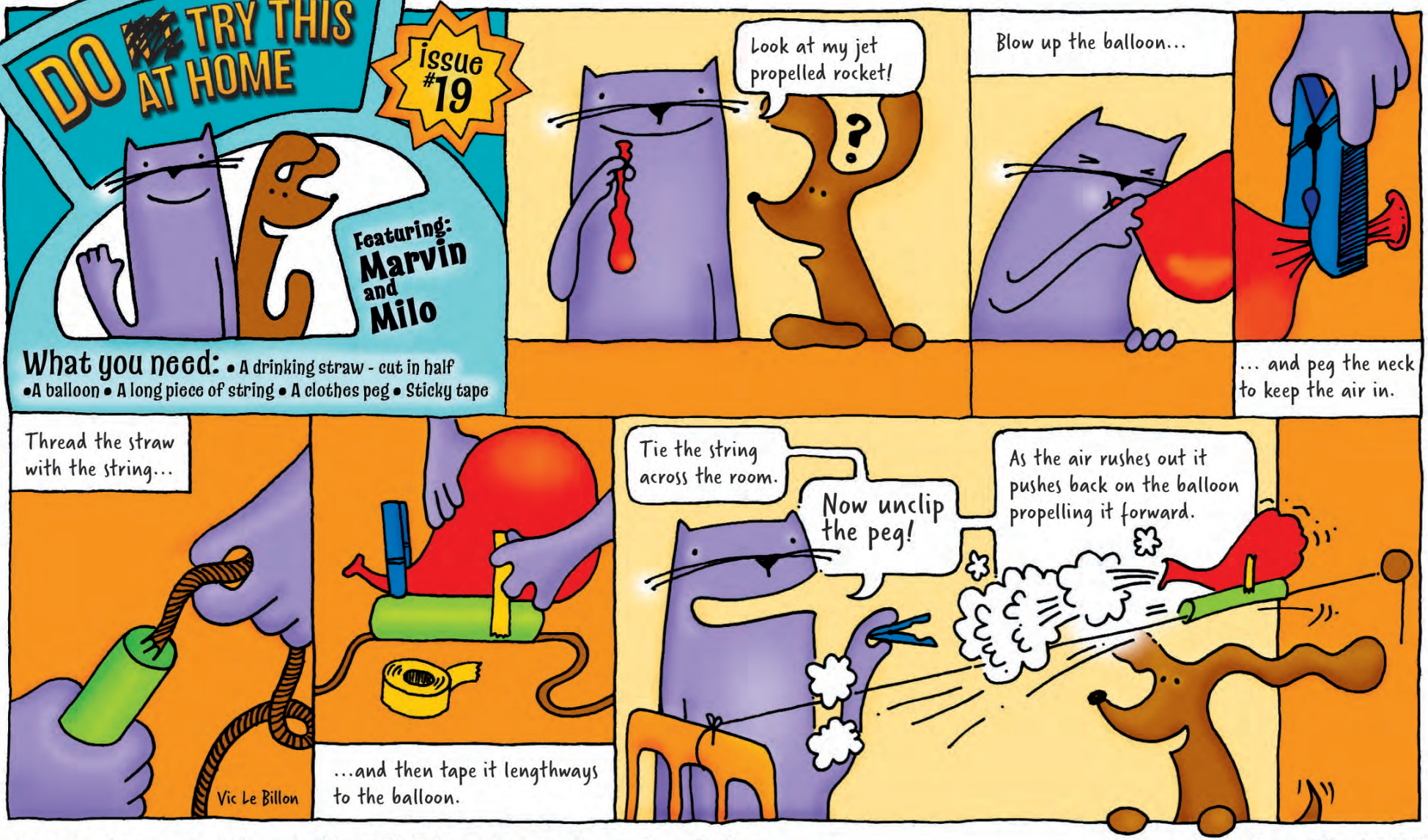
issue #19

Featuring: Marvin and Milo

What you need: • A drinking straw - cut in half • A balloon • A long piece of string • A clothes peg • Sticky tape



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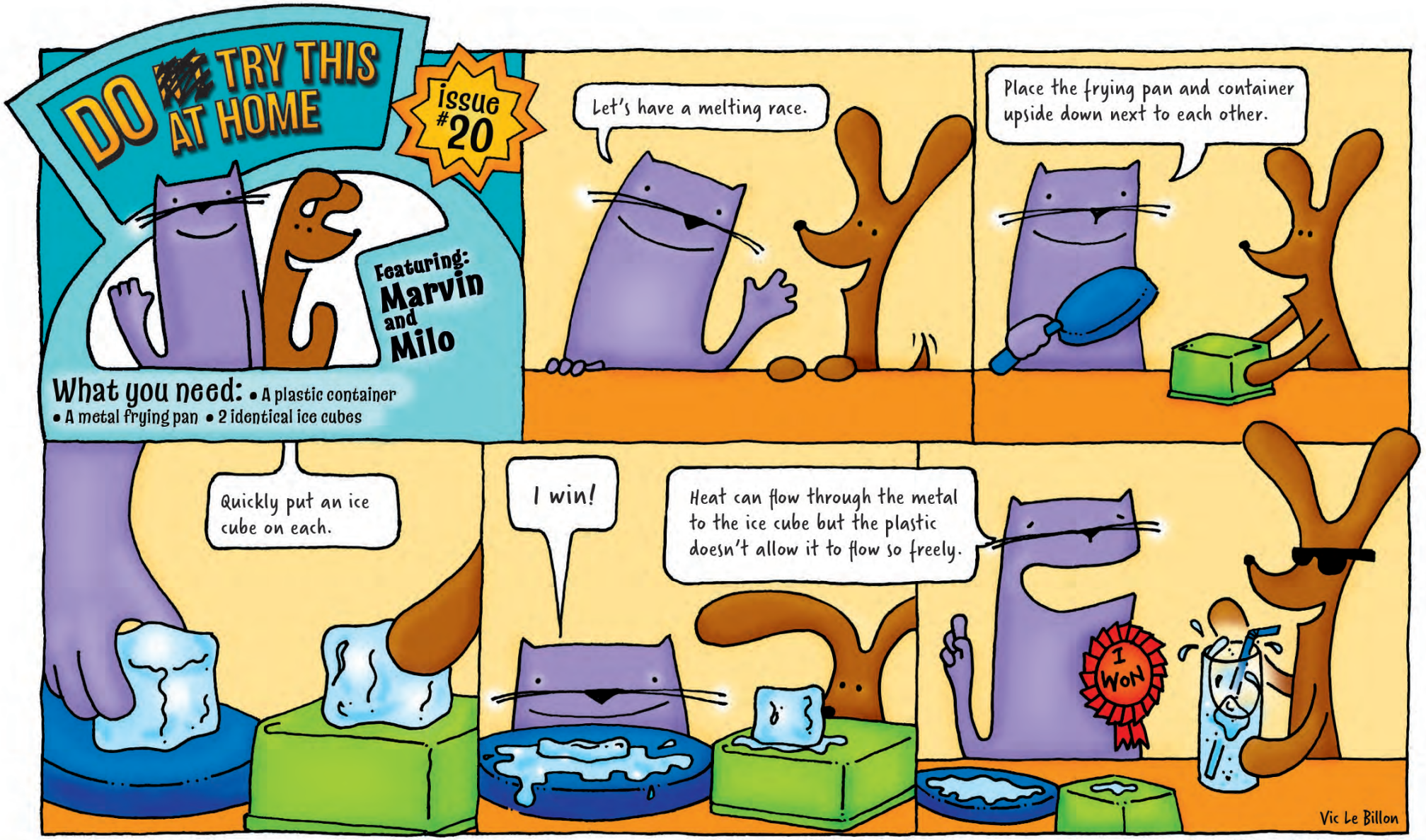

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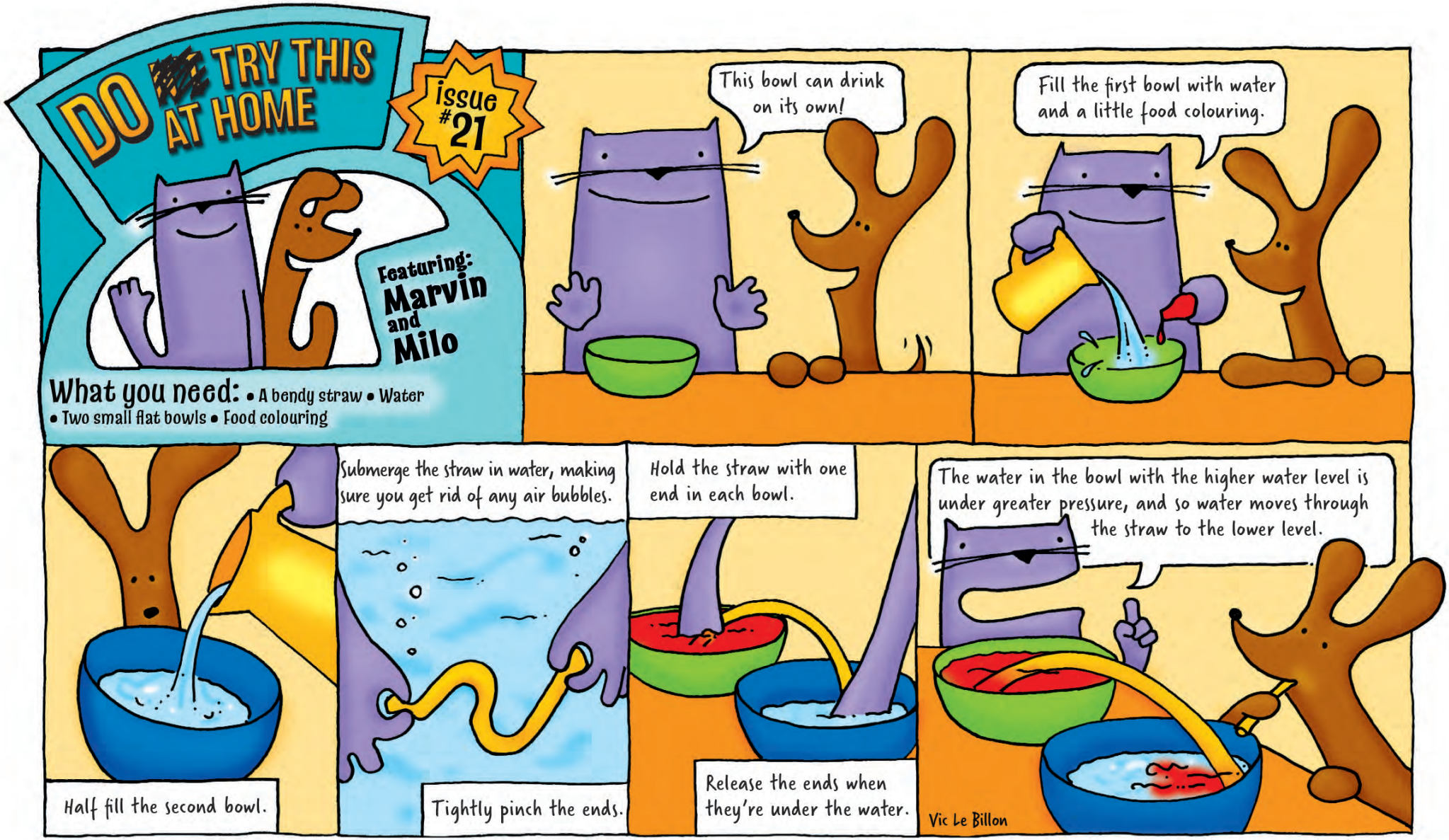

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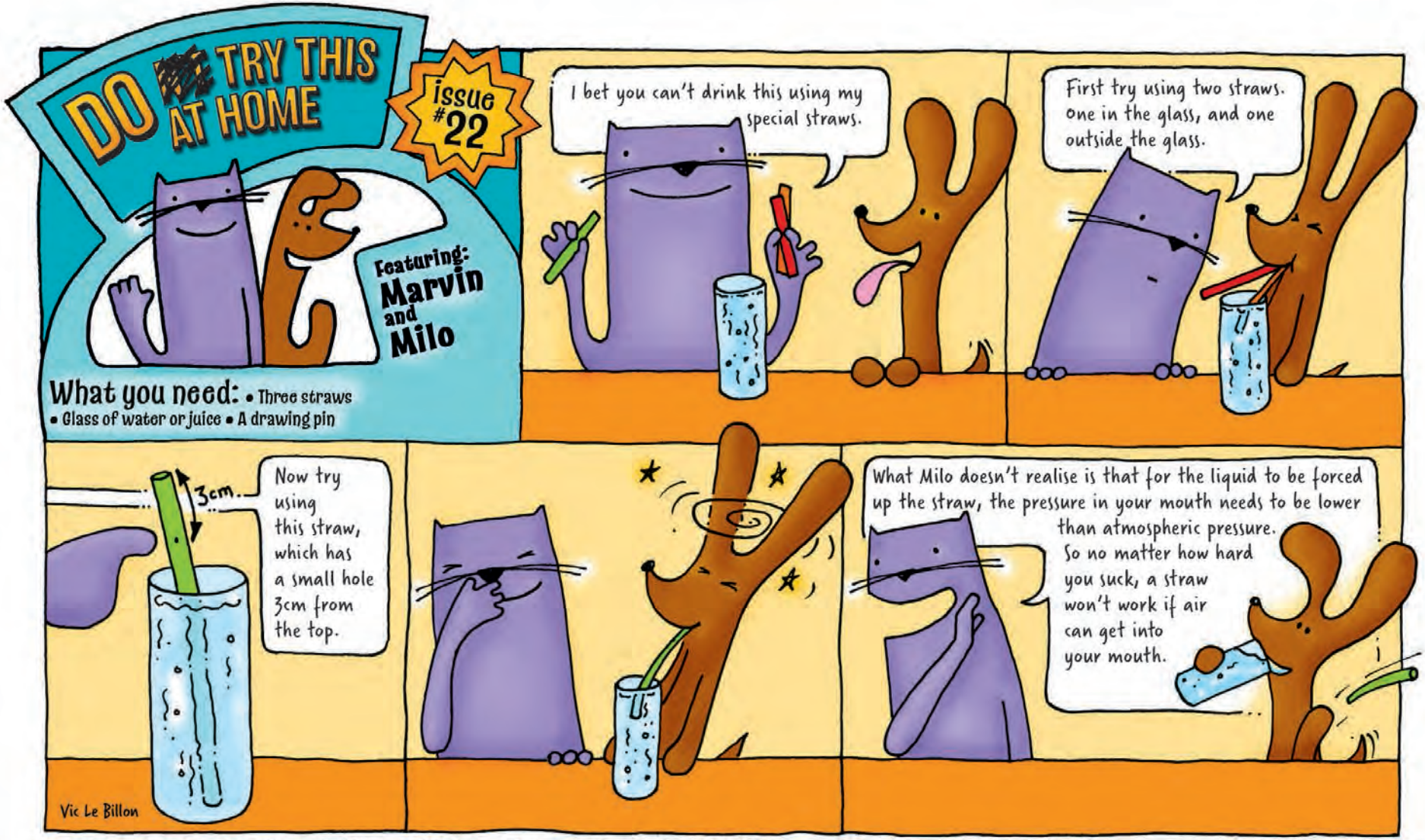

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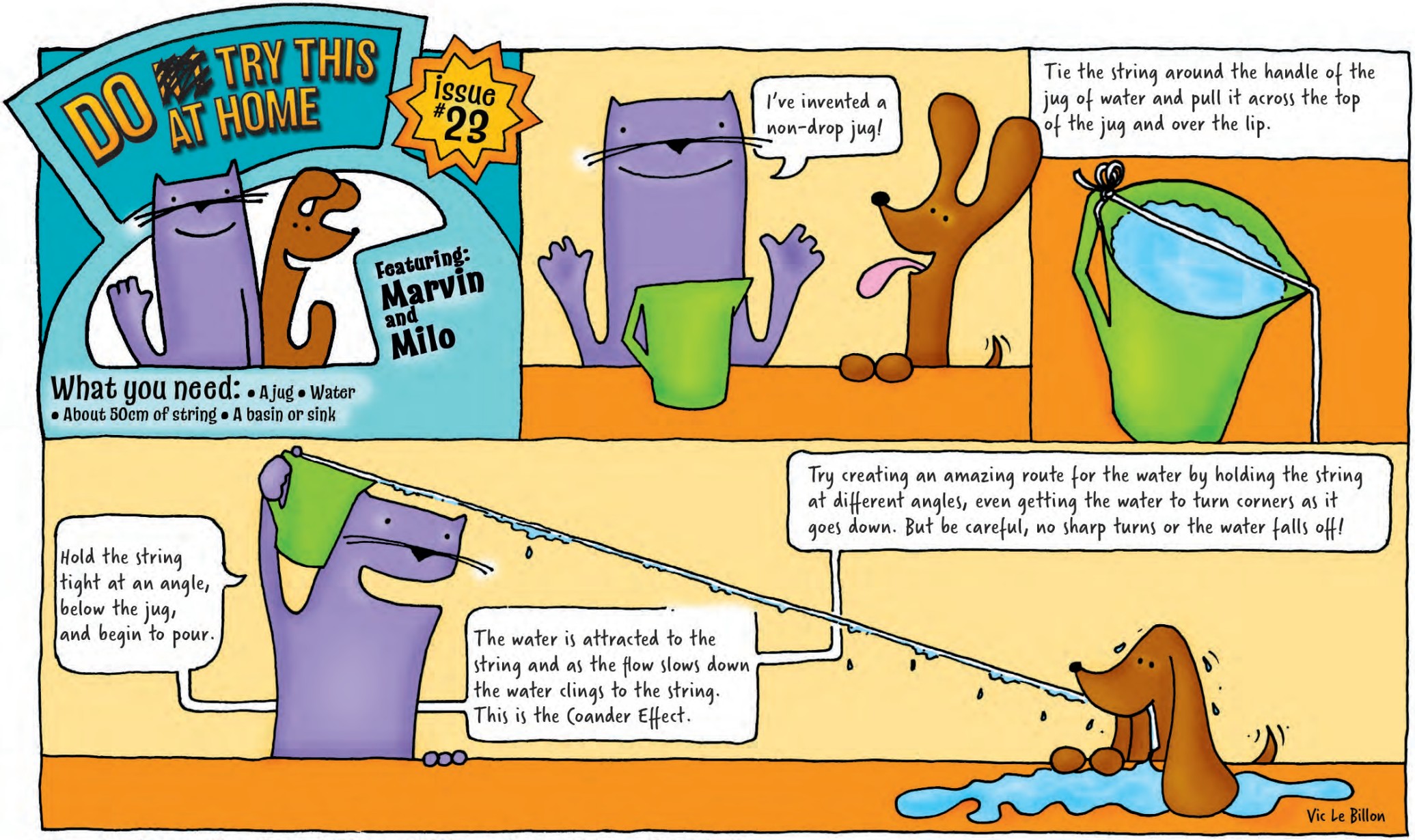

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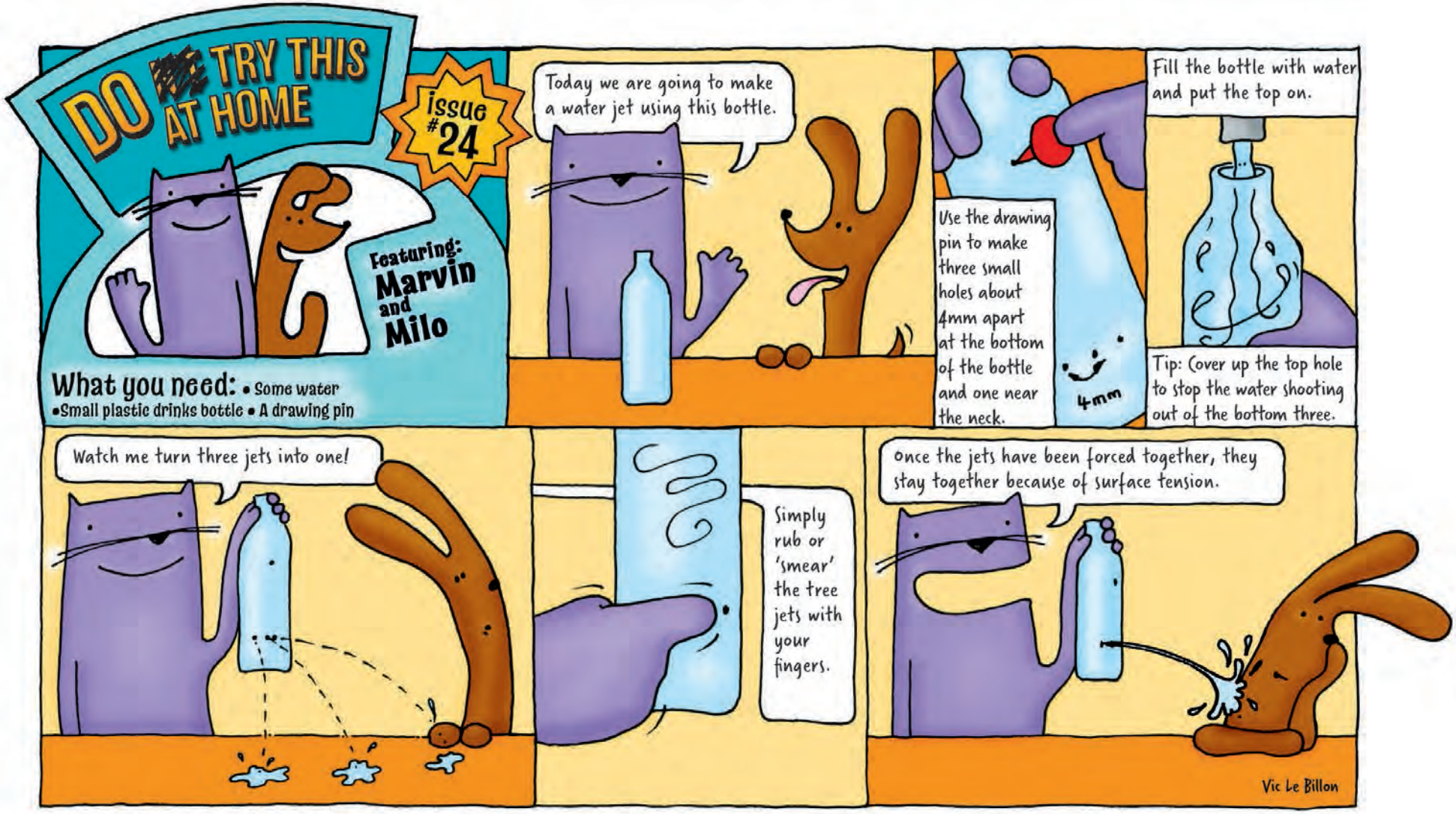

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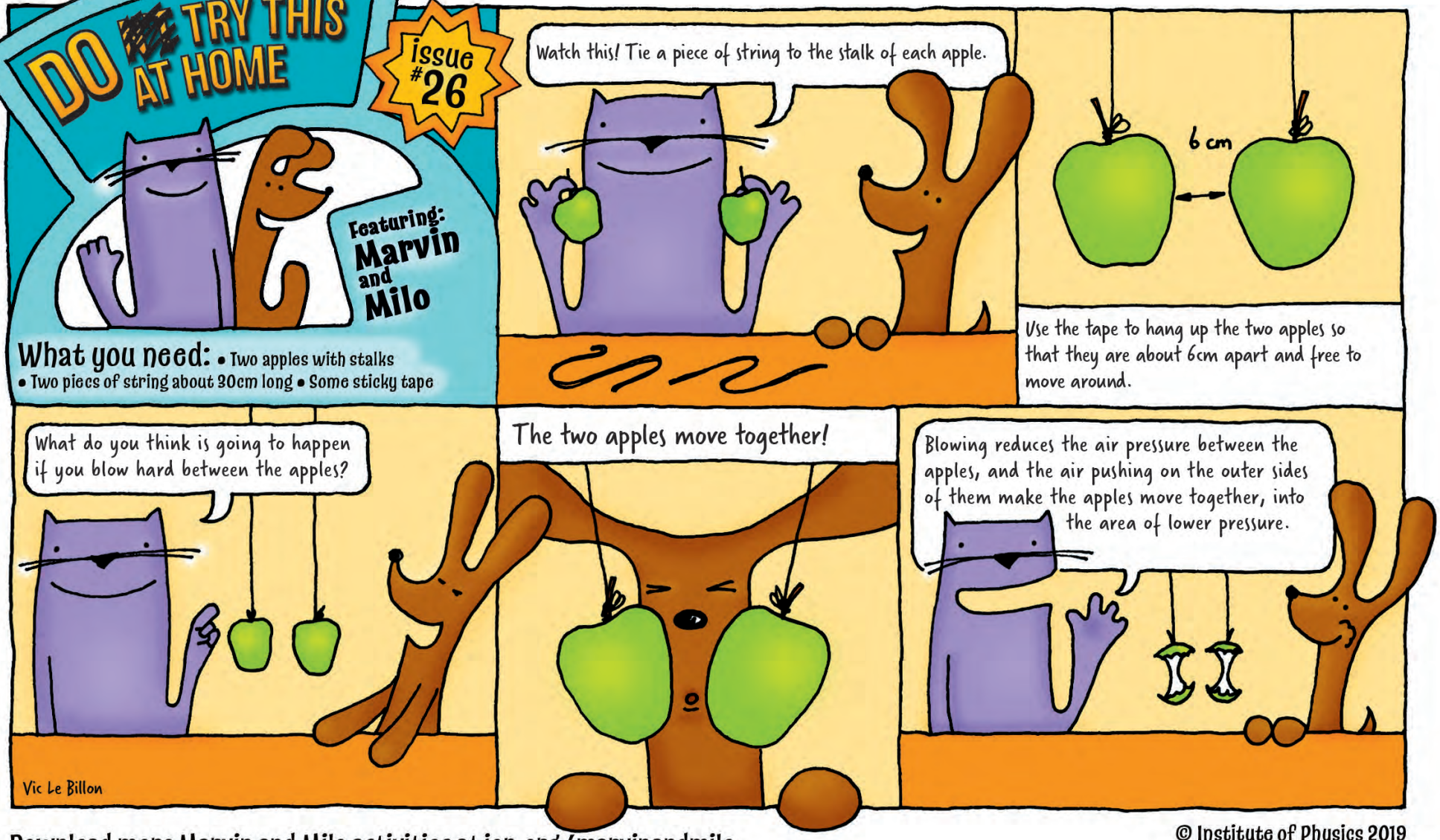
issue #26

Featuring: Marvin and Milo

What you need: • Two apples with stalks • Two pieces of string about 30cm long • Some sticky tape



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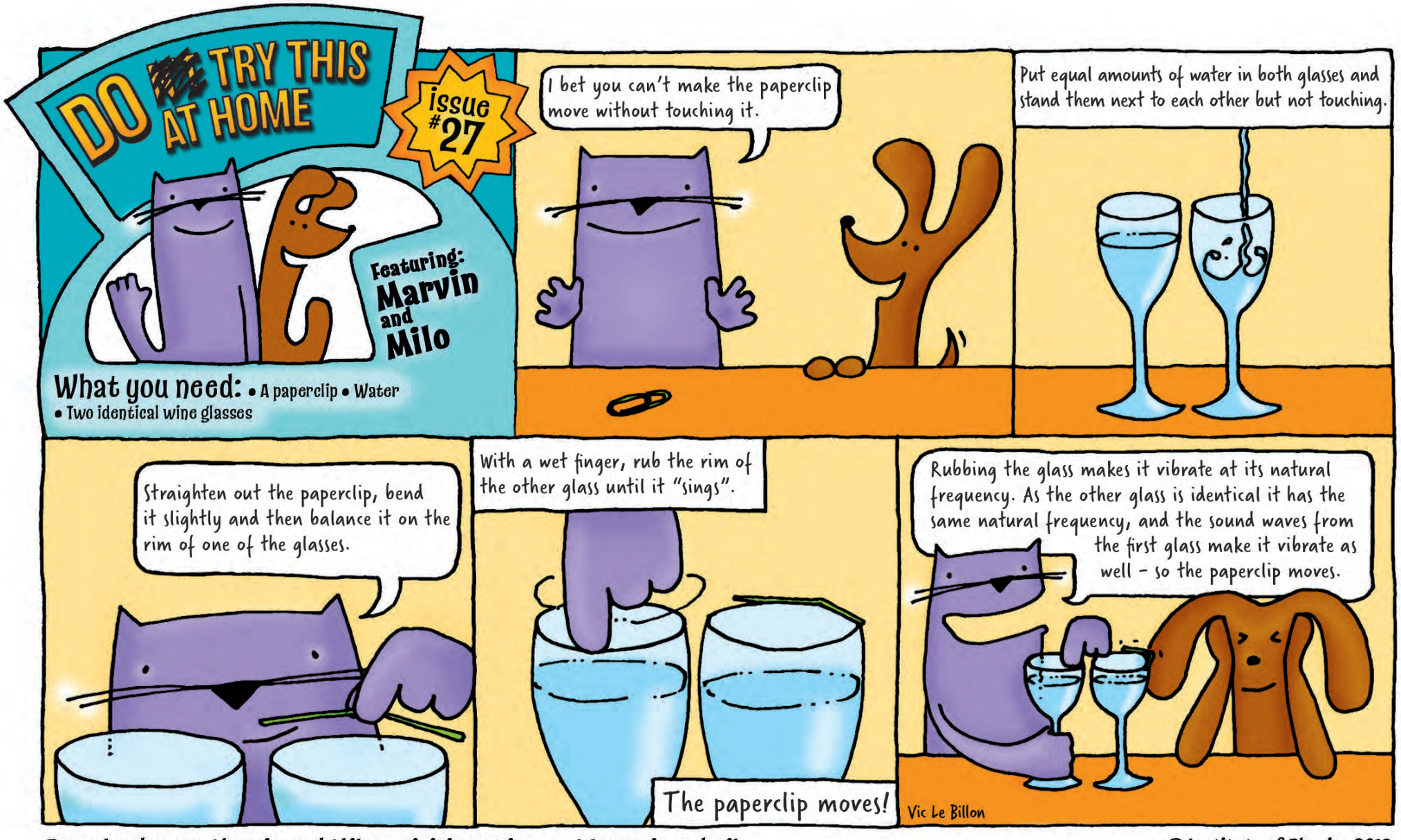

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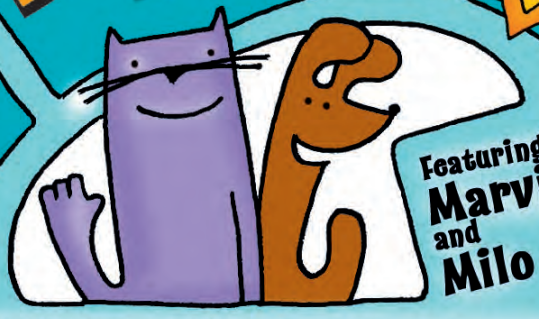
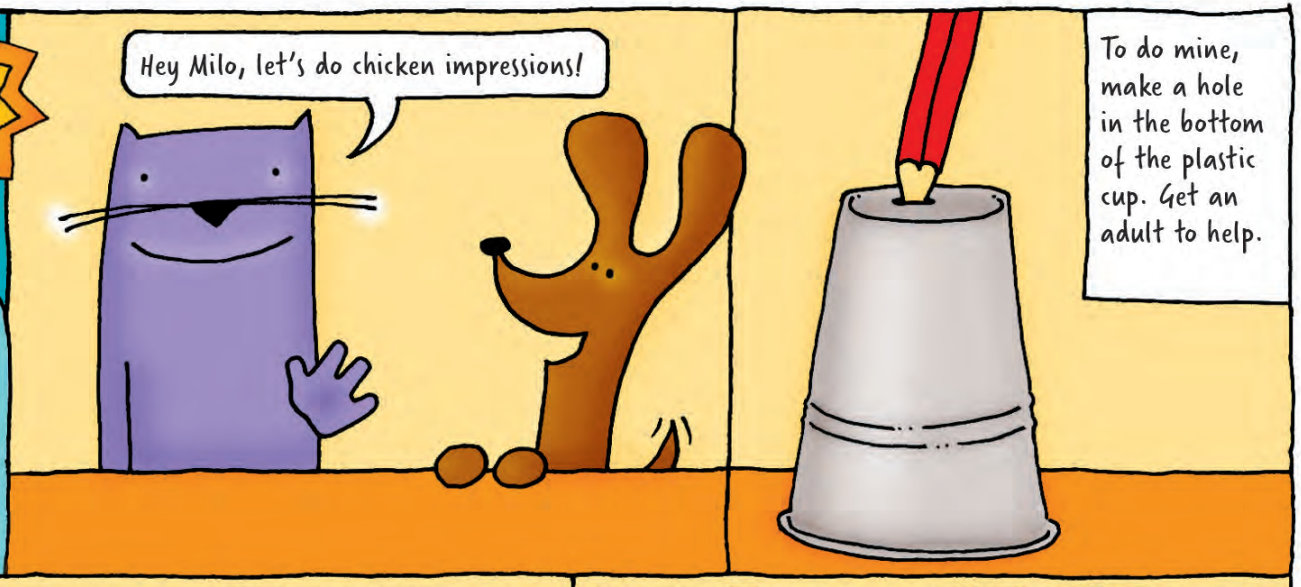
issue #28



Featuring: Marvin and Milo

What you need: • A plastic cup or yoghurt pot • A damp cloth • Smooth string



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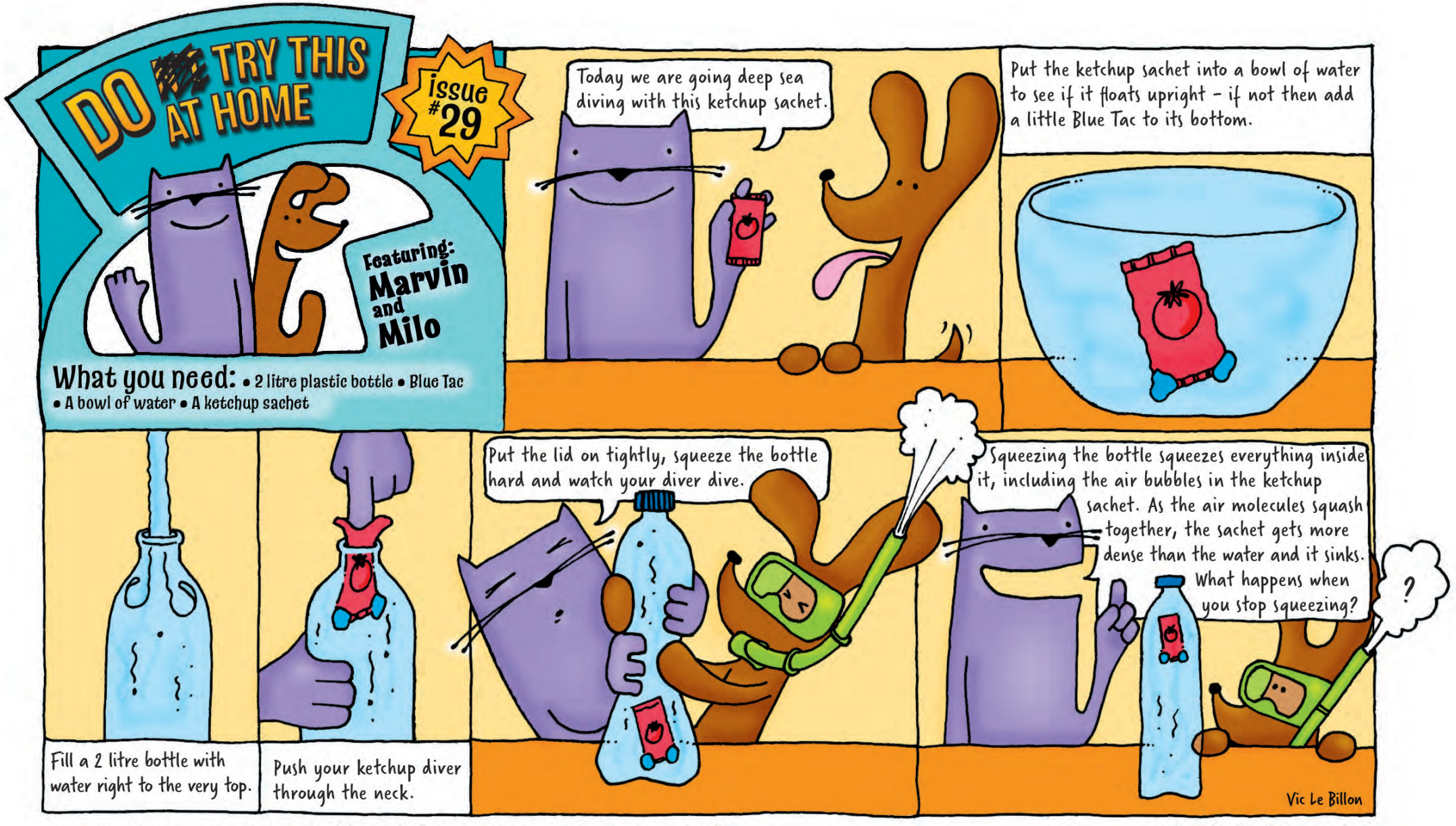

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issue #30

Featuring: Marvin and Milo

What you need: • Two very similar sized books with at least 100 pages each

I can join these two books together so well that you won't be able to pull them apart – and I won't use glue or staples or stickytape.

My books are about the same size and have about the same number of pages.

Vic Le Billon

Carfully and evenly, interweave the pages of the books so that they overlap to about the middle of the page.

Hold the books by the spines and pull! The books don't separate, no matter how hard you pull, because of the friction between the pages.

Friction is the force that acts against the motion of two surfaces in contact. The friction between just two pages is tiny but with lots of pages in the books, the force becomes very noticeable!

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Issue #31

Featuring: Marvin and Milo

What you need:
- Some water
- An empty fizzy drink can

Today I'm going to show you how to make a pop can pirouette!

Pour about 100ml of water into an empty fizzy pop can.

Tip it slightly to one side and balance it so that the two parts of the bottom rim are touching the table.

Once the can is stable, give it a gentle push and it will pirouette.

For something to balance, its centre of mass has to be above its point of support. Water can flow which means that as the can pirouettes, the water moves and the centre of mass always stays above where the rim touches the table.

BURP!

Vic Le Billon

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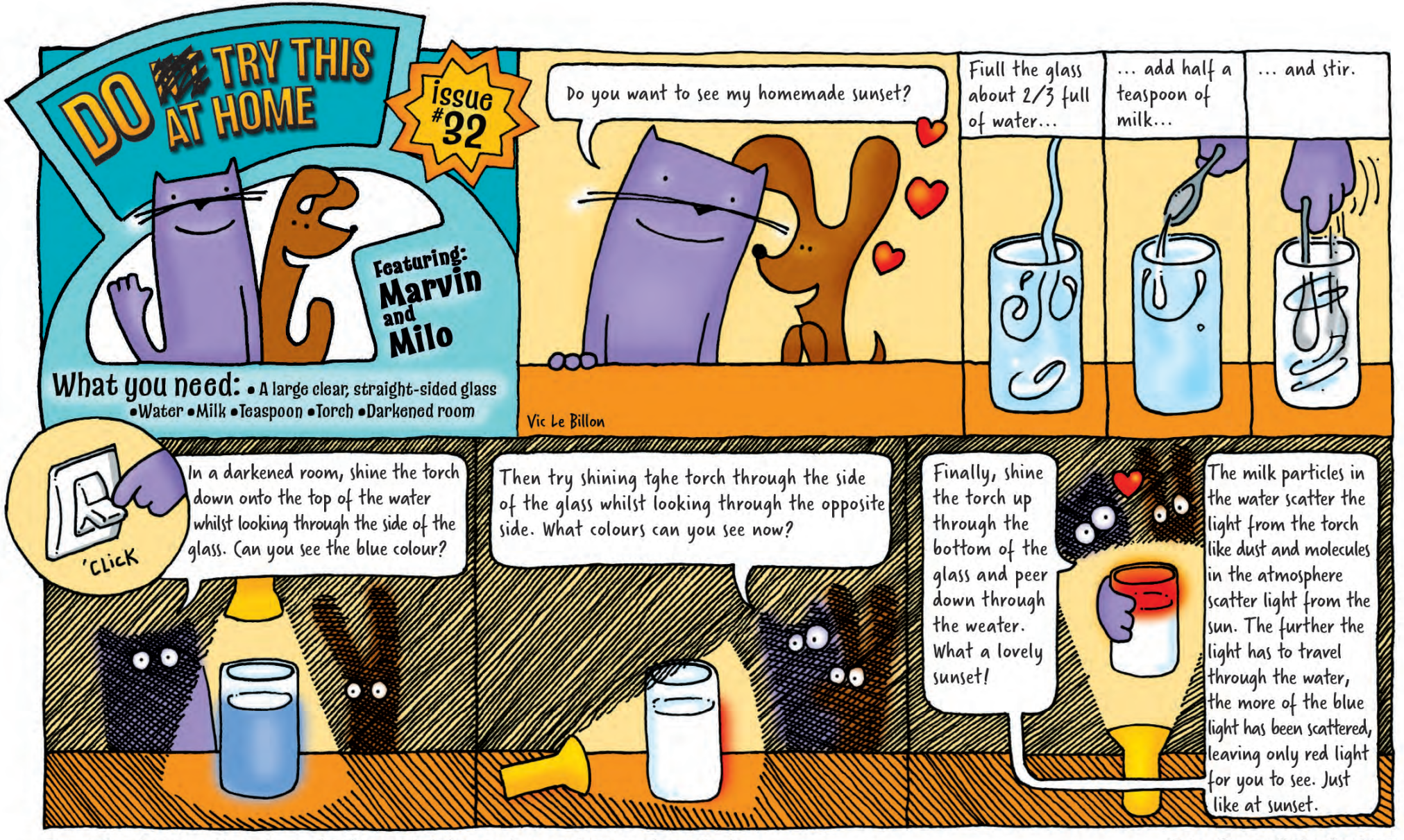

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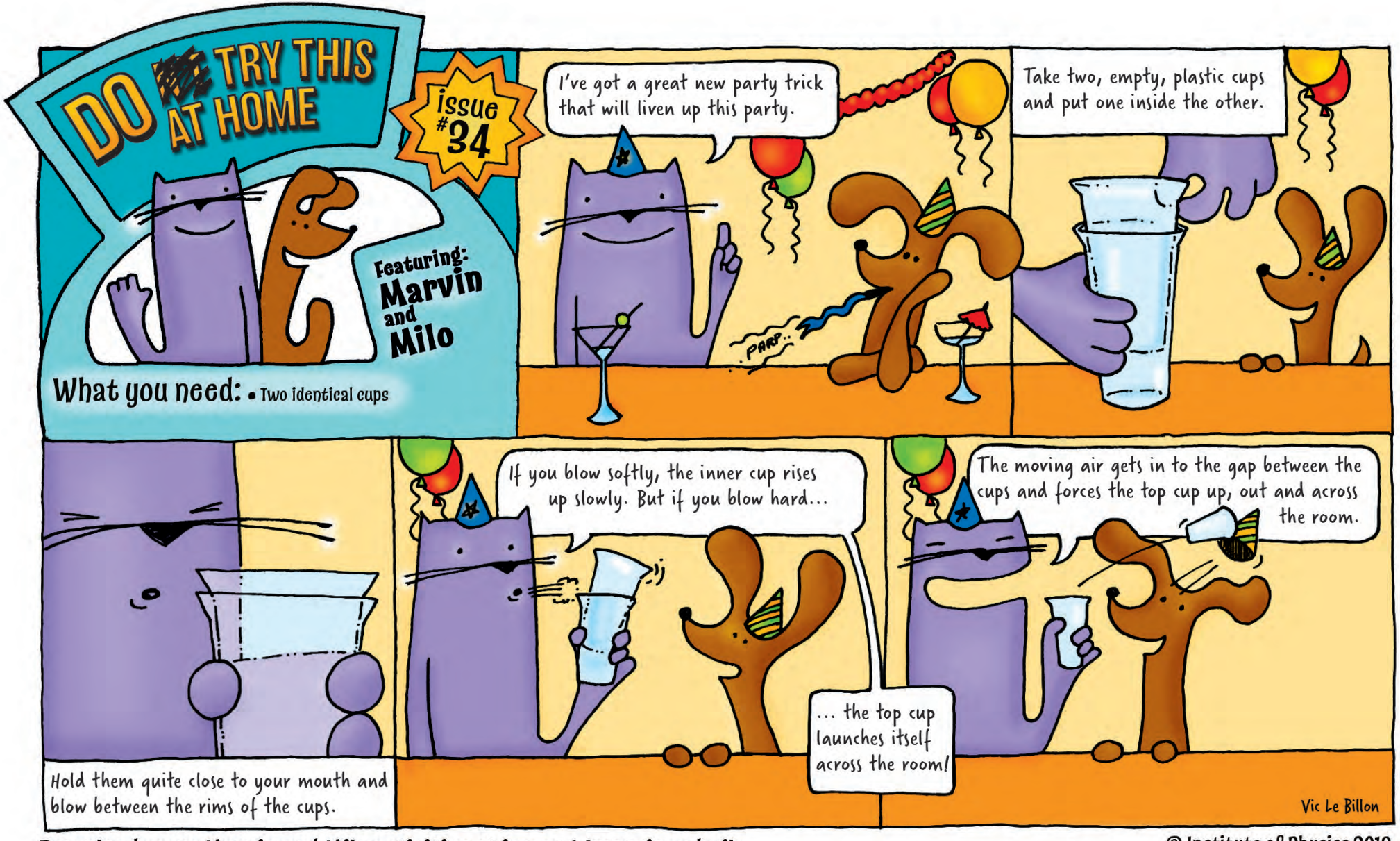

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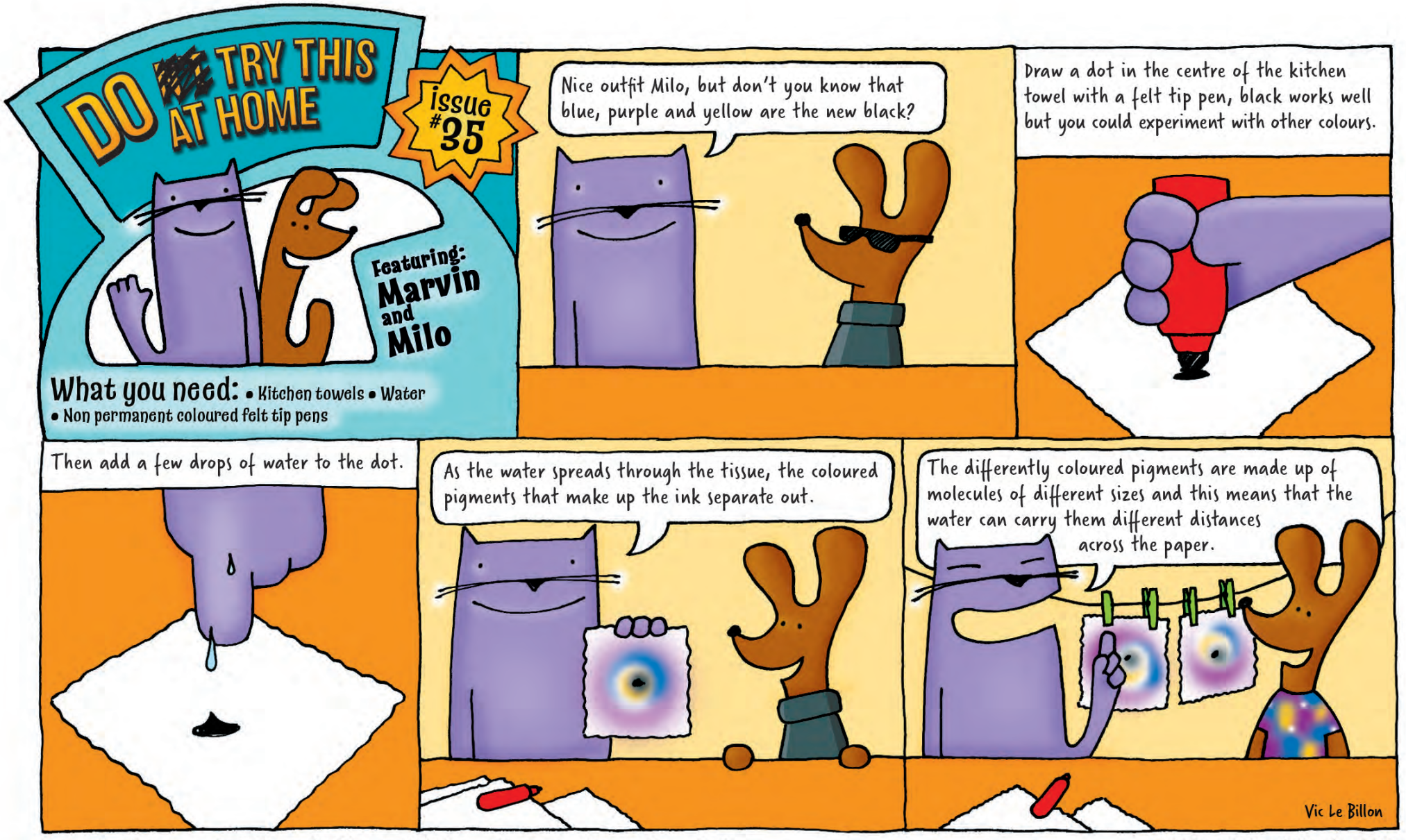

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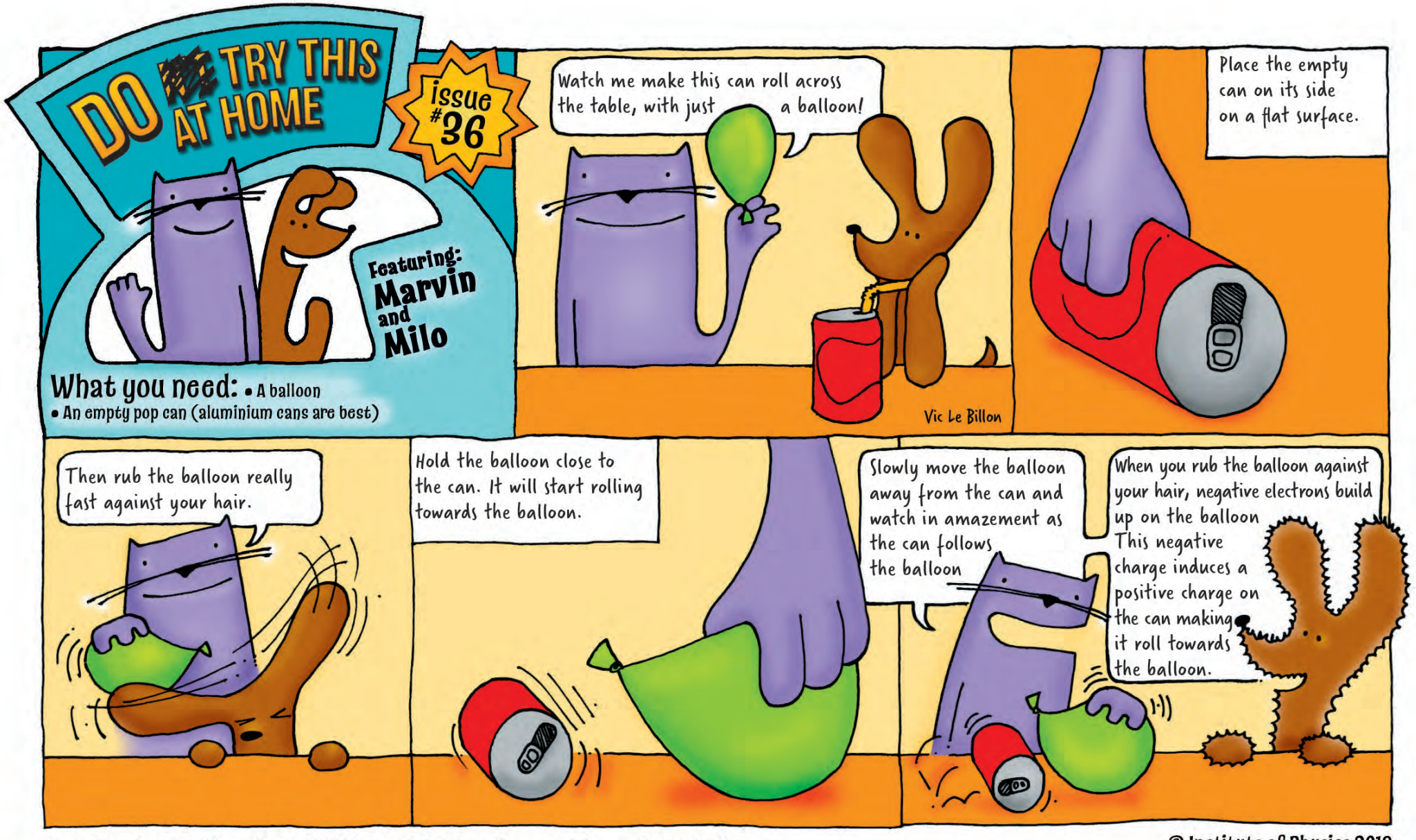

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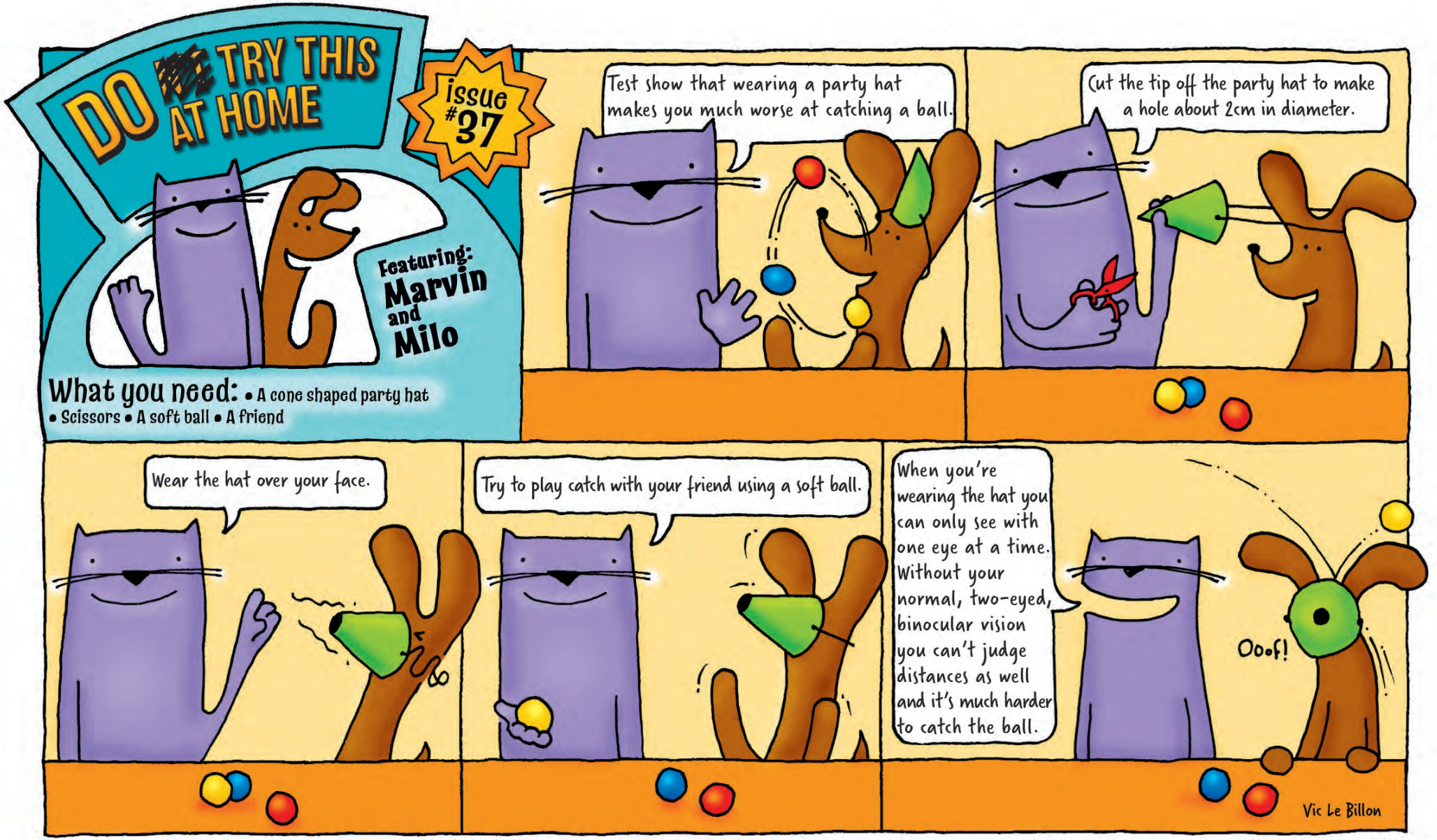

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issue #38

Featuring: Marvin and Milo

What you need: • Large glass of hot water • Pencil • Two pipe cleaners • Epsom salts • Blue food colouring • Spoon

Well Milo, that's the Christmas decorating done... but there's something missing... Ahh, I know!

Vic Le Billon

Cut one pipe cleaner in half. Twist the two halves around the second pipe cleaner to make a six pointed star. Twist the long point around a pencil so the star can hang from it.

Fill a glass with enough hot water so that the star will be completely covered when it's hanging from the pencil. Add some colouring to the water. Stirring, add Epsom salts to the water until no more will dissolve...

... and wait overnight.

A sparkly star emerges!

The rough surfaces of the pipe cleaners act as a nucleation site, encouraging the salt molecules to come out of solution and form crystals. They grow over time as more and more salt molecules attach to the crystal surfaces.

Festive greetings to everybody from the Institute of Physics!

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issue #39

Featuring: Marvin and Milo

What you need: • Two polystyrene cups • Two large elastic bands • Sticky tape

Chocs away Milo! It's time to make these ordinary cups loop the loop!

Tape the two polystyrene cups together at the base.

Then tie the two elastic bands together.

Hold one end of the elastic where the cups join and wind it around a few times until the other end of the elastic is at the bottom and pointing away from you.

Hold the cups in one hand and stretch the elastic with the other. Fire the cups like a catapult. With a bit of practice the cups will soon be looping in the air.

The elastic makes the cups spin backwards as well as move forward through the air. This back spin creates lift, forcing the cups upwards. But air resistance soon slows the cups down and they fall towards the ground, completing the loop.

Vic Le Billon

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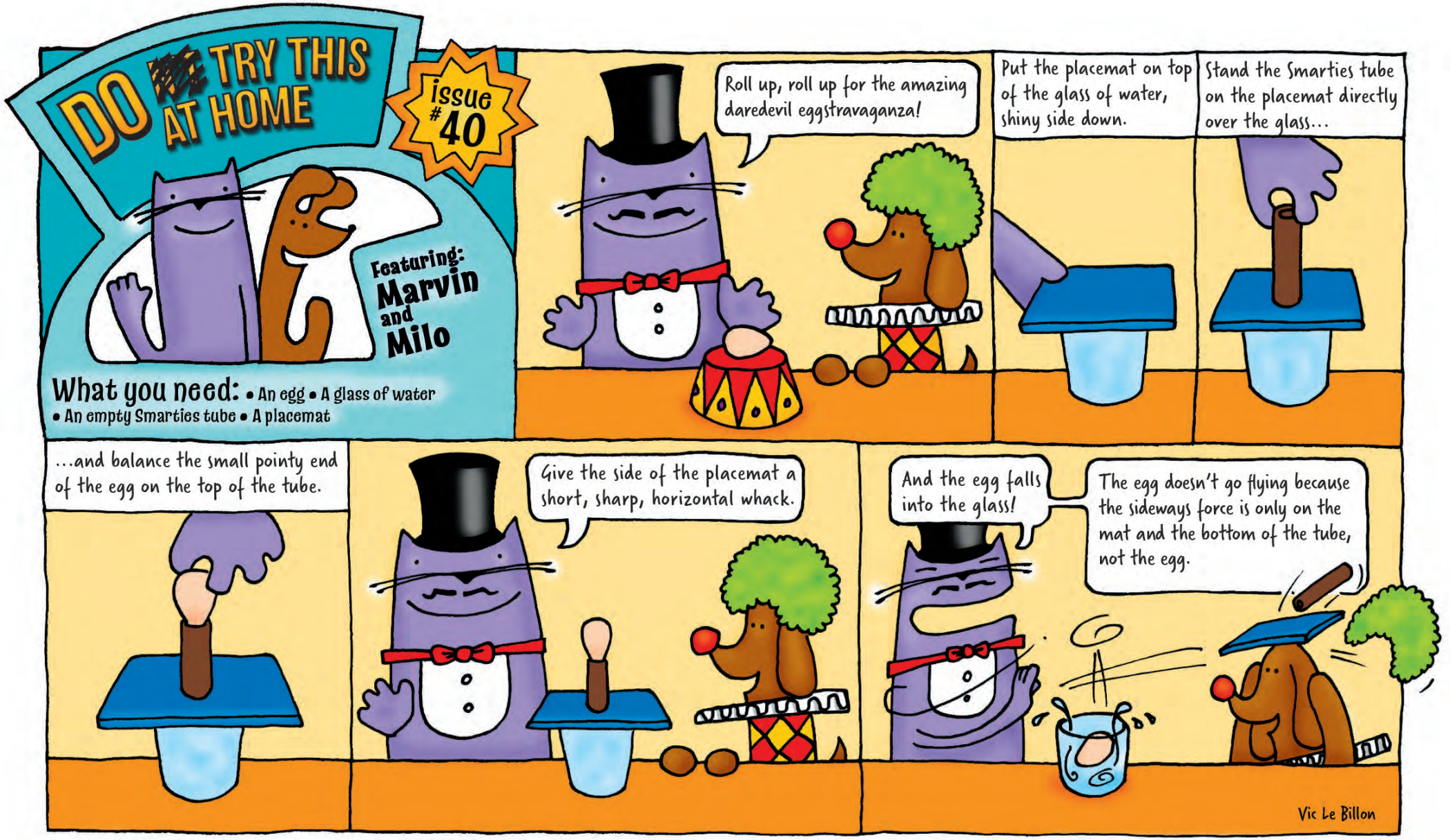

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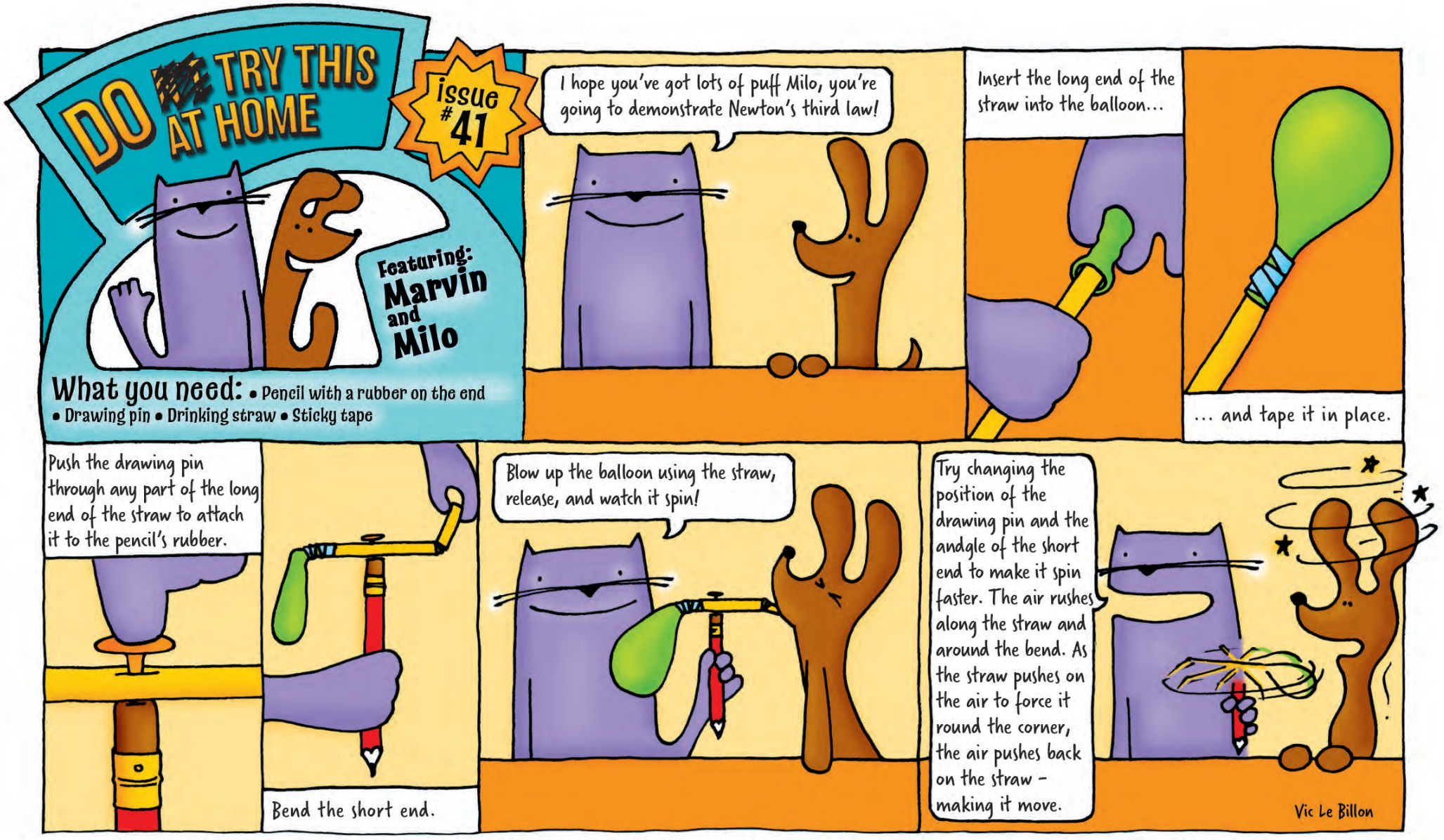

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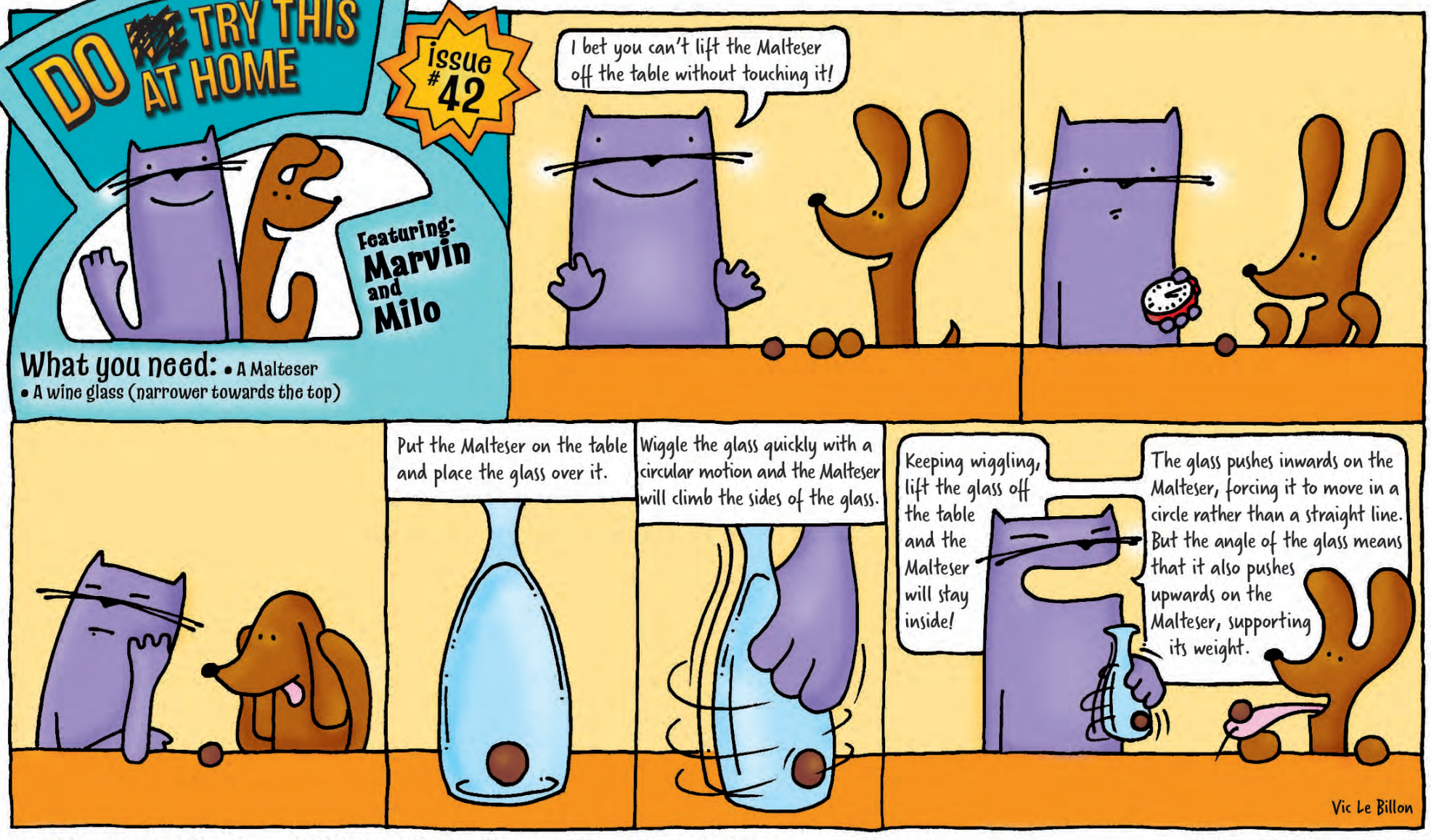
issue #42

Featuring: Marvin and Milo

What you need:
- A Malteser
- A wine glass (narrower towards the top)



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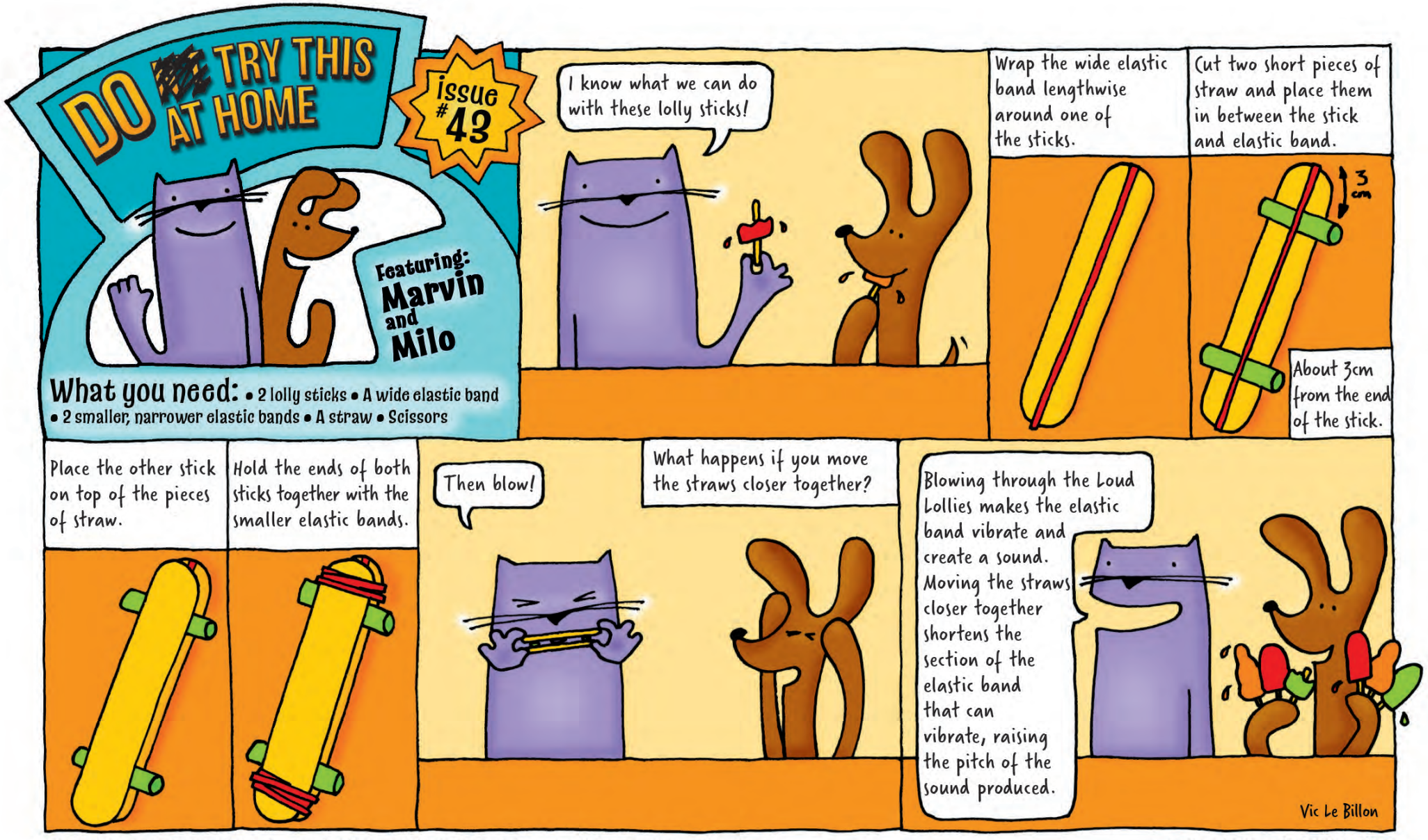

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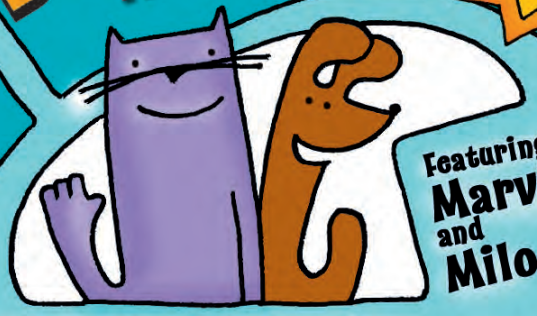
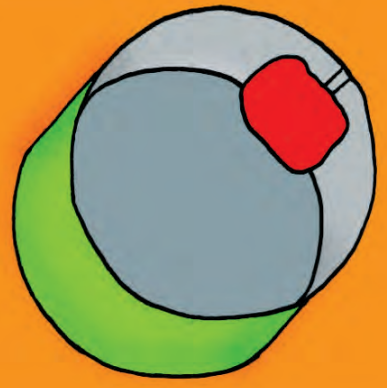


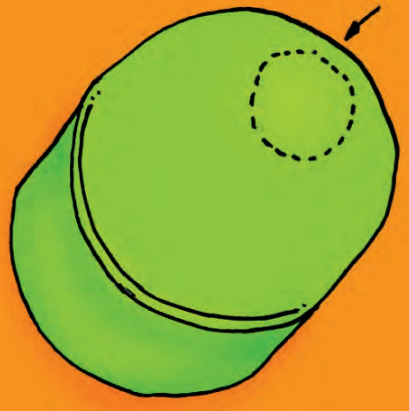
Featuring: Marvin and Milo

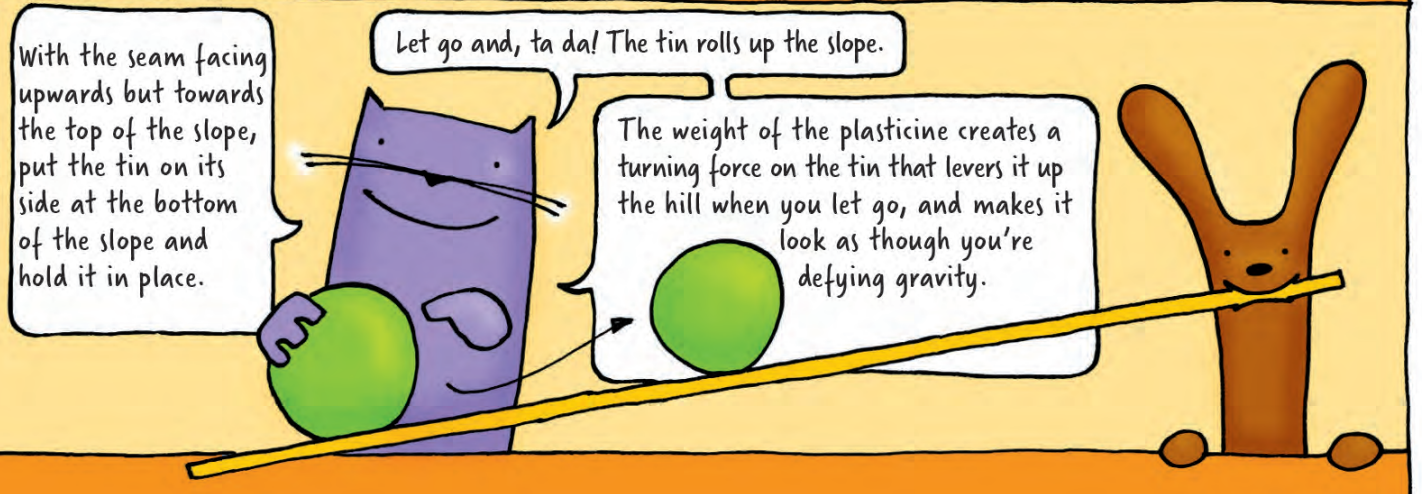
What you need: • A ramp or slope • A lump of plasticine • A round biscuit tin (or similar container)

Attach a large-fist-sized lump of plasticine to the inside of the wall of the tin at the seam...



...and put the lid on.





Vic Le Billon

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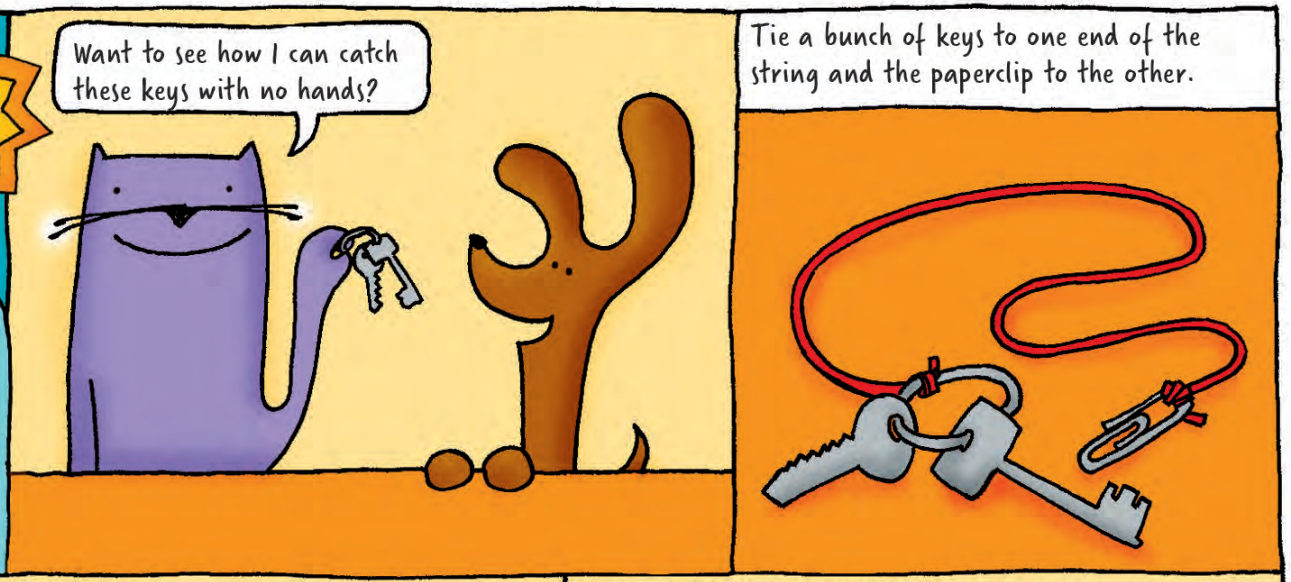
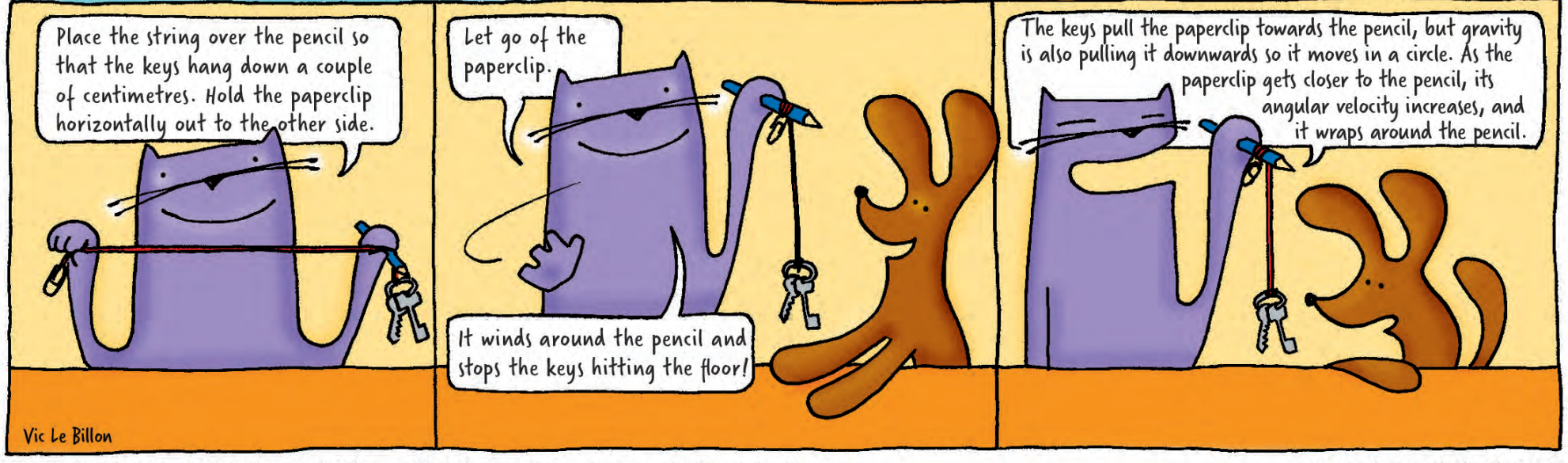
issue #46

Featuring: Marvin and Milo

What you need: • A bunch of about 3 keys • A pencil • A large paperclip or washer • 1m of string





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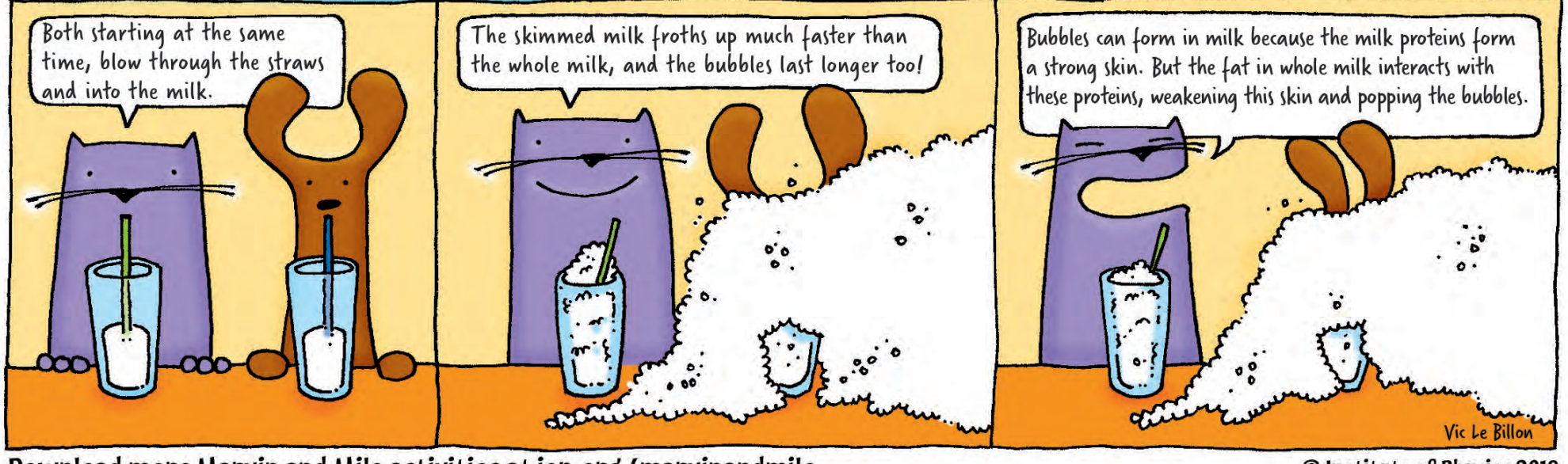
DO TRY THIS AT HOME

issue #48

Featuring: Marvin and Milo

What you need: • Two glasses • Skimmed milk • Whole milk • Two straws • A friend



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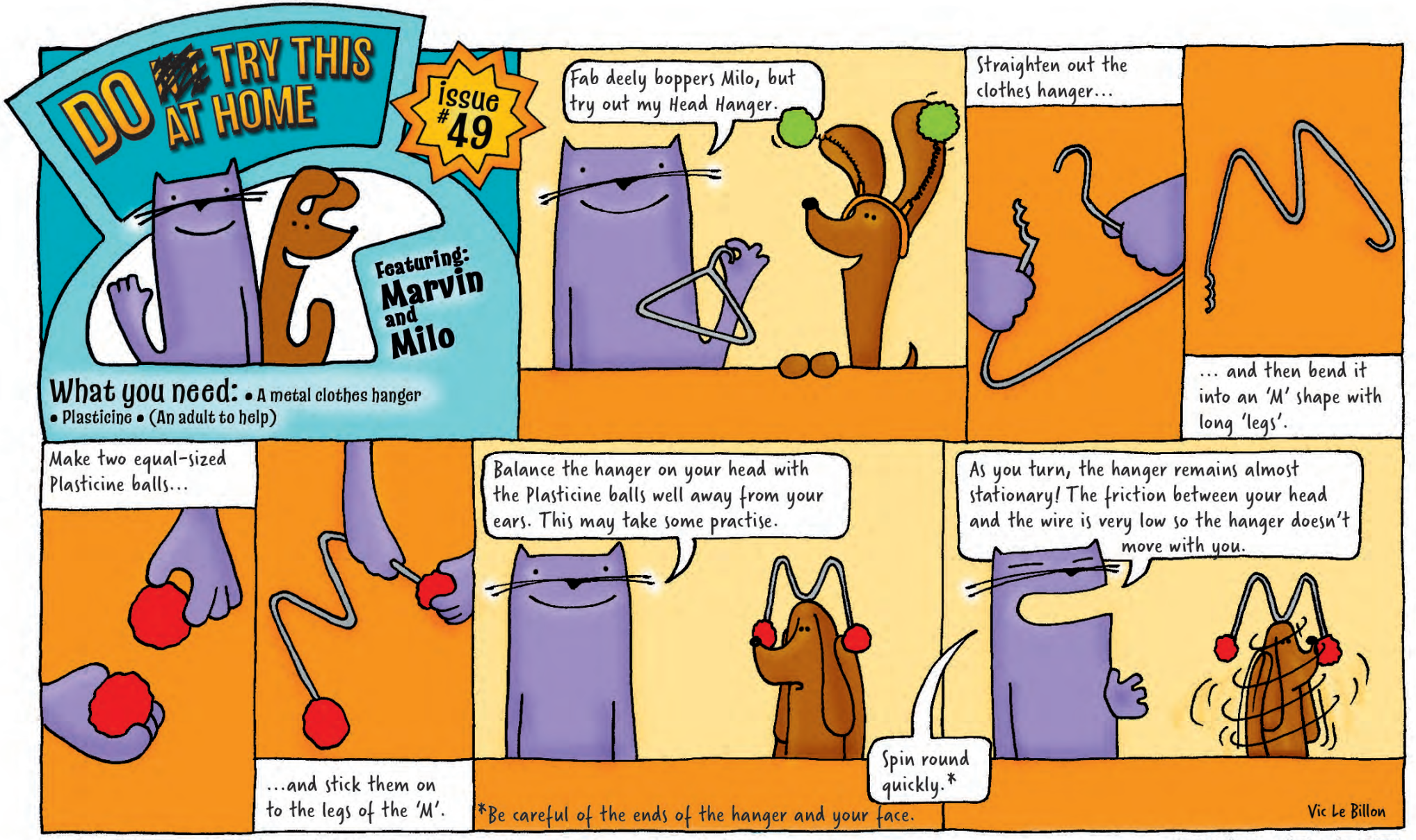

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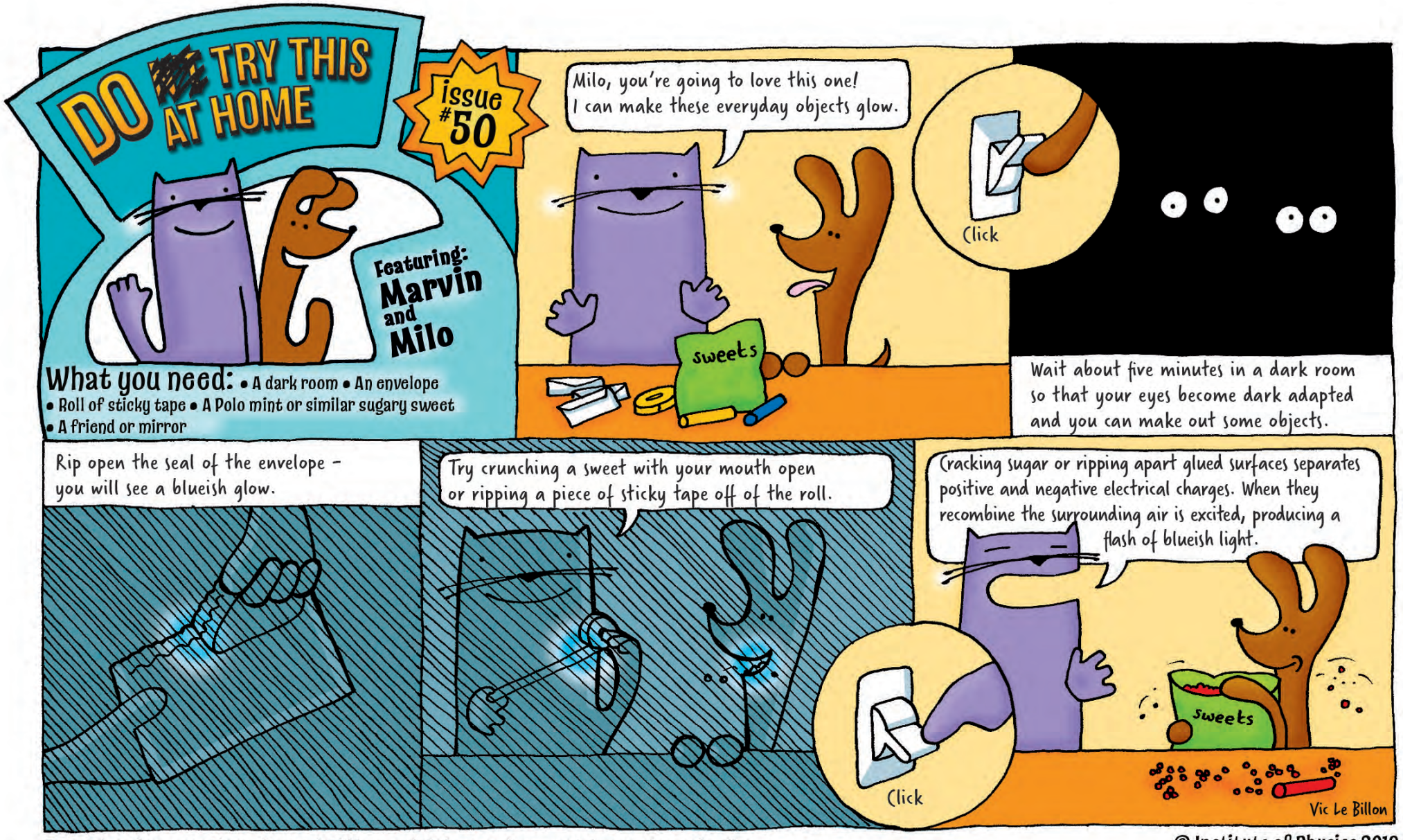

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issue #51

Featuring: Marvin and Milo

What you need: • A plastic cup • A pair of scissors • Some water

This is a great trick to do at a picnic, Milo. Do you think I can get water to stay in a cup with a hole in it?

Cut a hole in the bottom of the plastic cup about 1cm in diameter, making sure that your finger can cover it.

Ask an adult to help with this.

Cover the hole with your finger and fill the cup with water. Make sure you're somewhere that can get wet.

Drop the cup, removing your finger from the hole as quickly as possible.

The water stays inside the cup despite the huge hole! The cup and the water are falling at the same rate due to gravity so they hit the ground at the same time.

Vic Le Billon

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DO TRY THIS AT HOME

issue #52

Featuring: Marvin and Milo

What you need: • An empty plastic bottle • A balloon • A pair of scissors • Sticky tape • A target

Hey Milo, check out my bottle blaster.

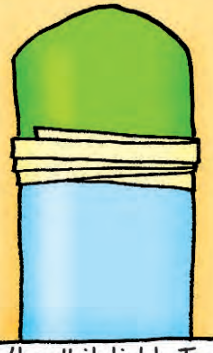
KERPOW

Carefully cut the bottom of the bottle off.*

*Ask an adult to help

Cut the neck off the balloon.

Stretch the balloon over the bottom of the bottle.



Don't pull it tight. Tape the balloon in place around the bottle.

Take aim at your target, pull back the centre of the balloon, hold the bottle steady and release the balloon!

KERPOP

A vortex of air is pushed out of the bottle by the balloon, ruffling everything it passes. How far will your vortex travel?

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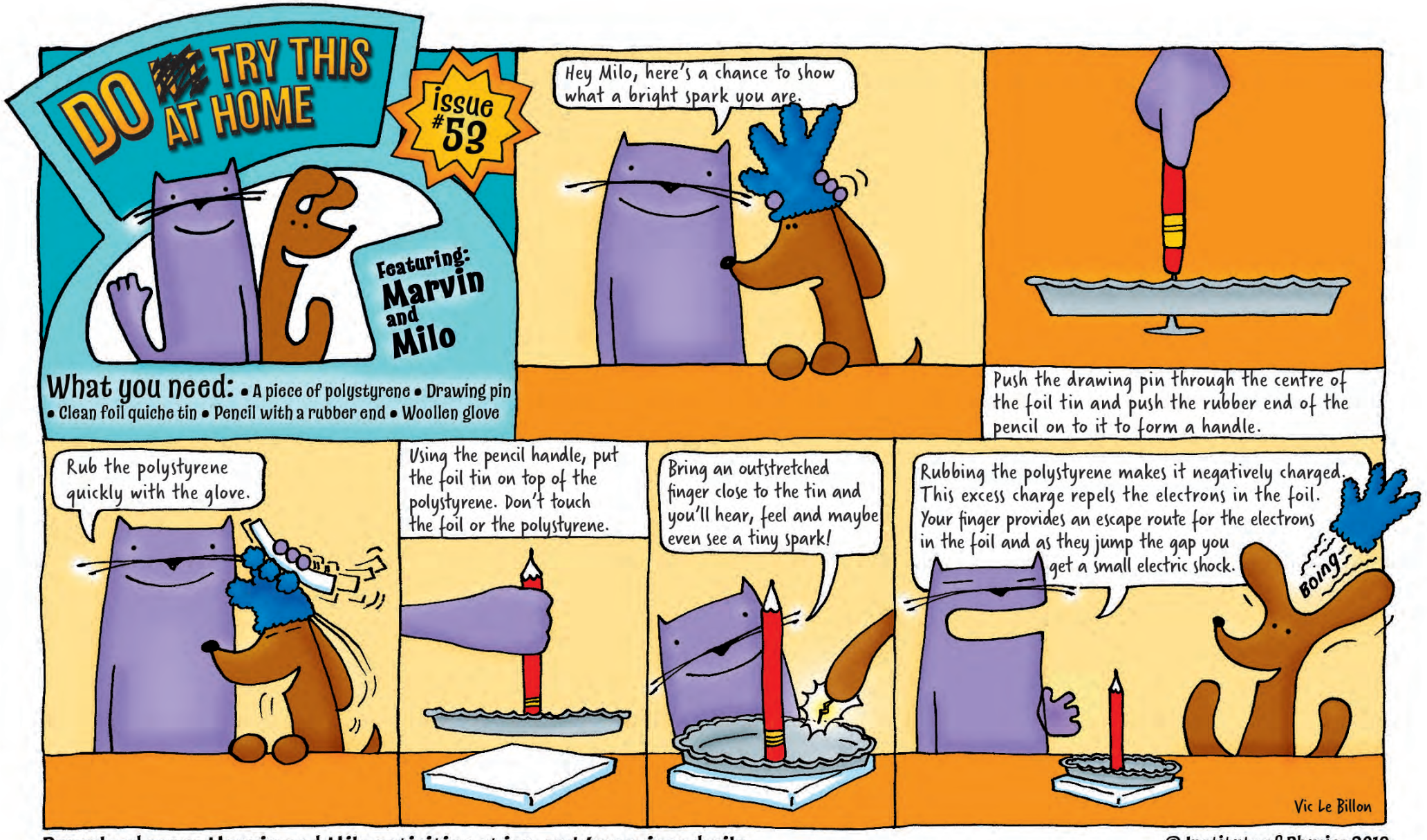

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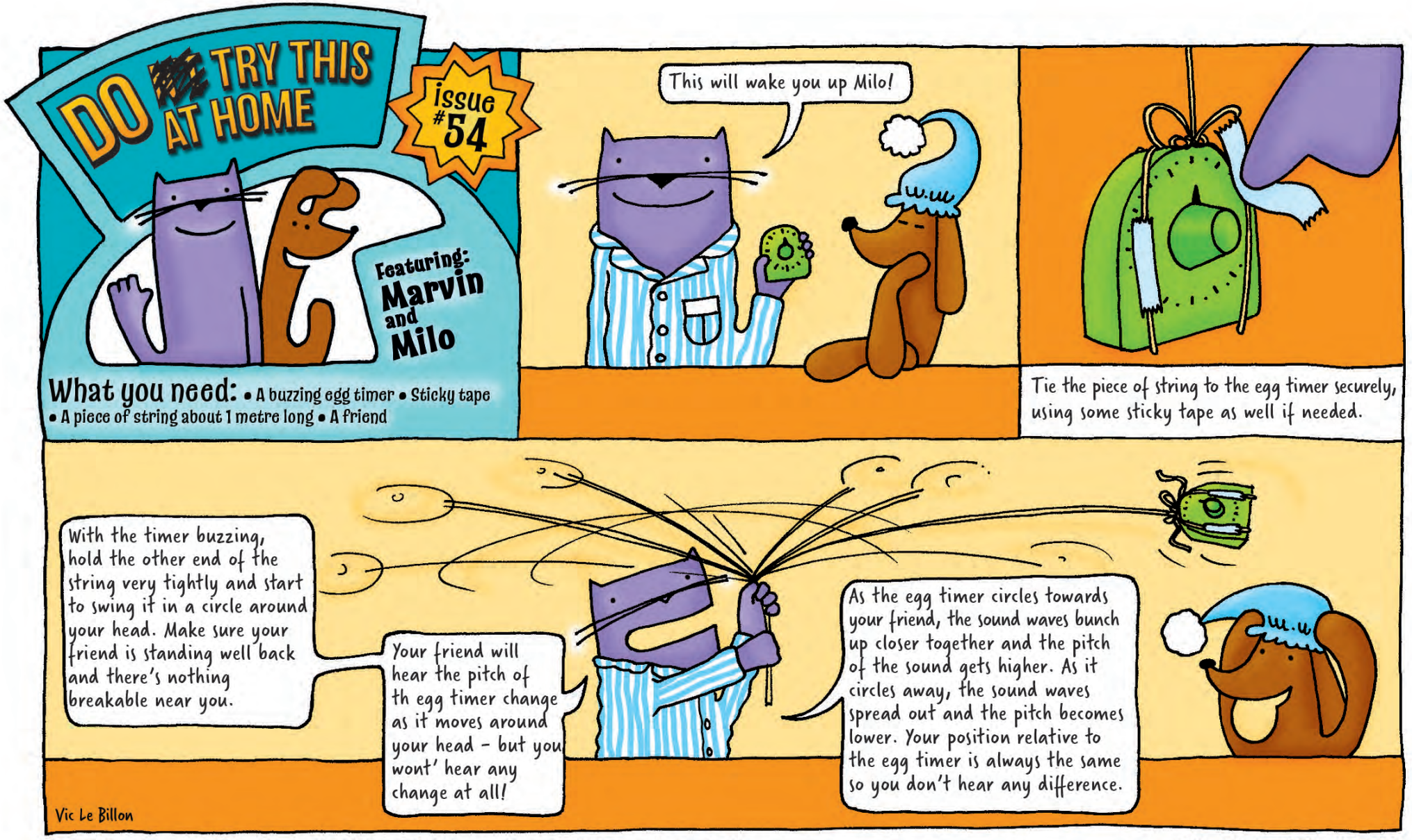

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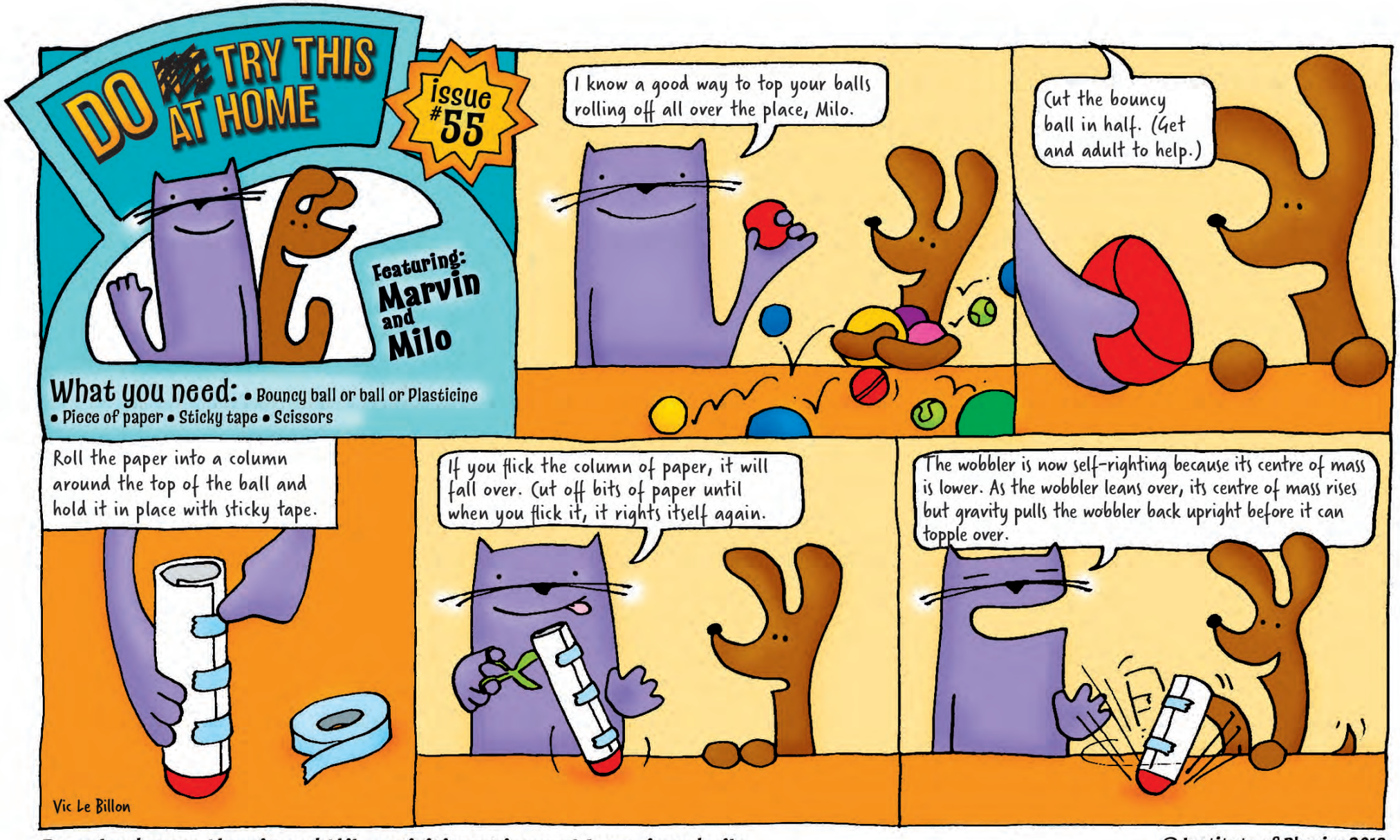

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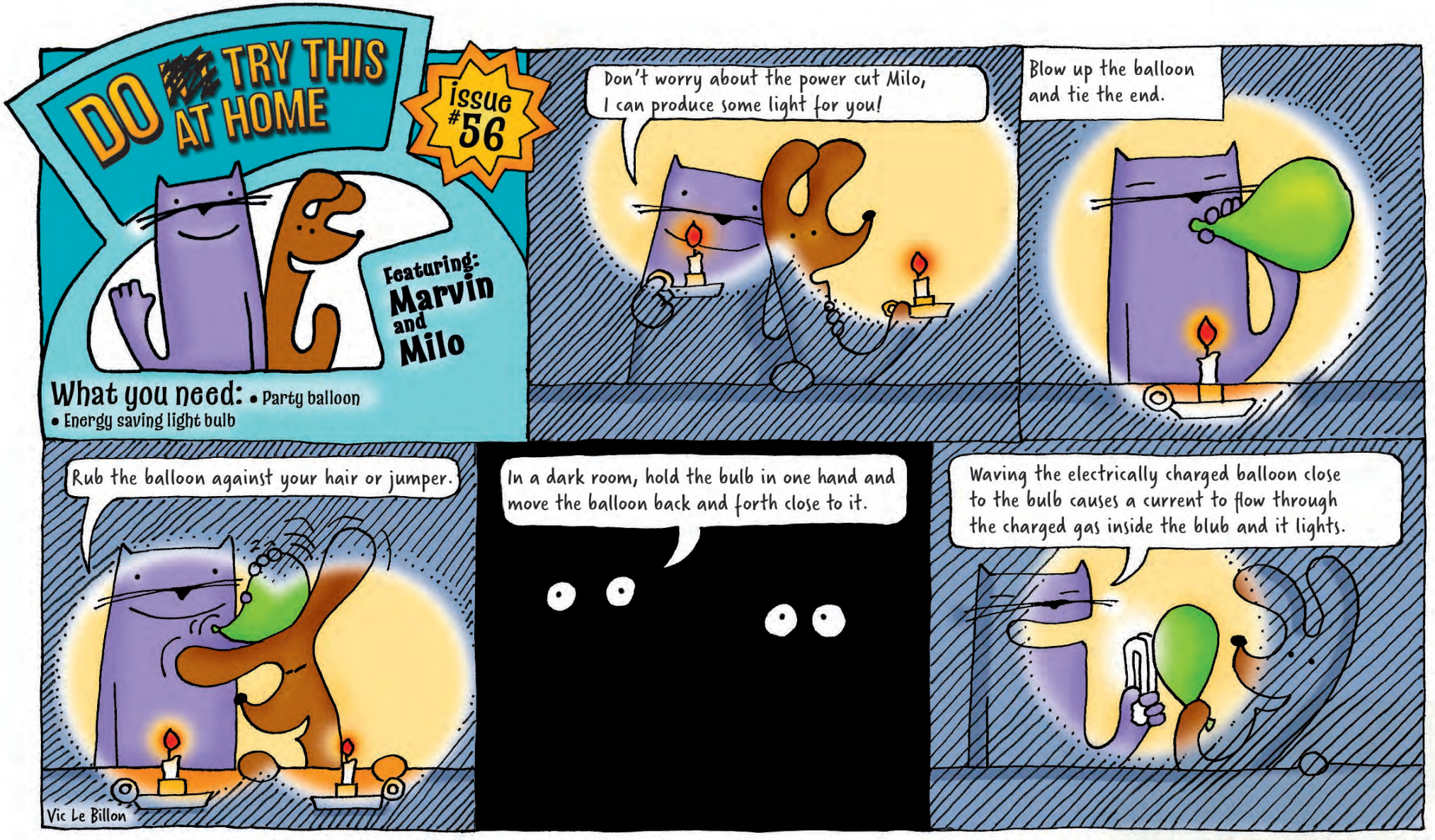

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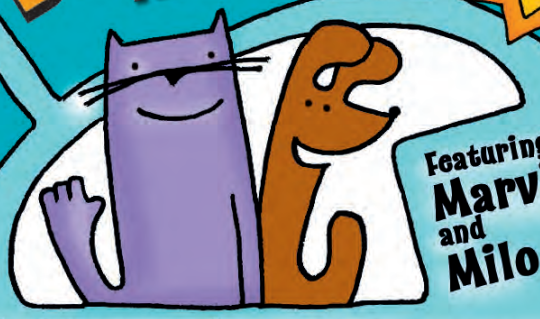
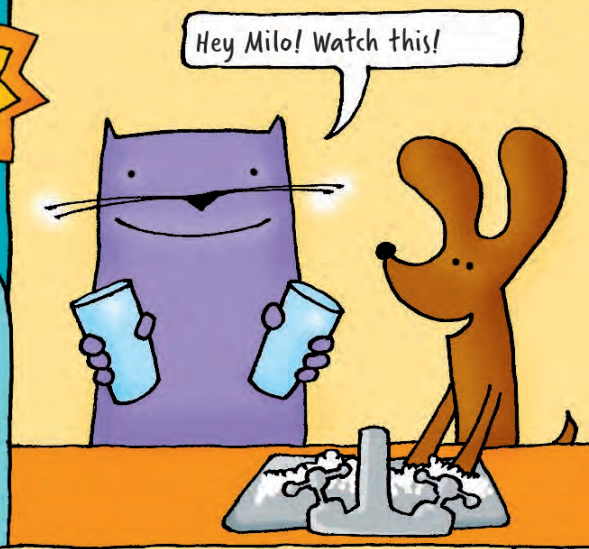
issue #57

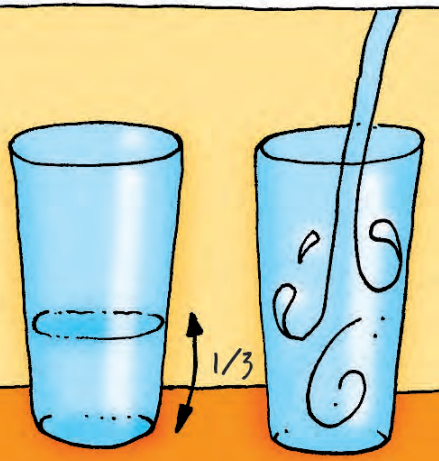


Featuring: Marvin and Milo

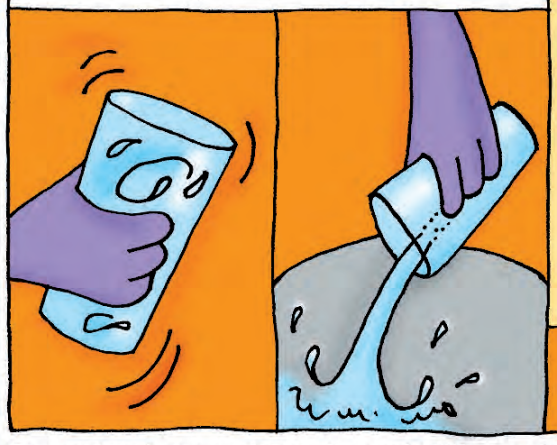
What you need: • Two plastic glasses • Paper towel • Hot water • Sink • Adult help



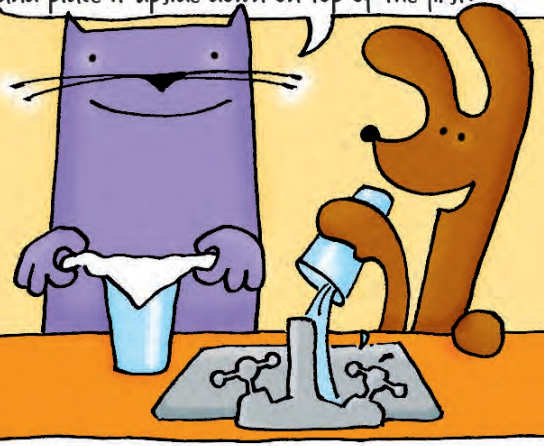
Fill both glasses about 1/3 full with hot water.



Carefully swirl the water around one of the glasses and pour the water away. *Mind not to splash yourself.



Dampen the paper towel and place it over the empty glass. Swirl and empty the second glass and place it upside down on top of the first.



Hold the top glass in place for ~20 seconds; then use the top glass to pick up both glasses. The hot water heats up the air inside the glasses, which expands and some escapes. With the two glasses held together the escaped air can't get back in as the air inside cools and shrinks. This means that the air pressure outside the glasses is higher than inside and the glasses are pushed tightly together.

Vic Le Billon

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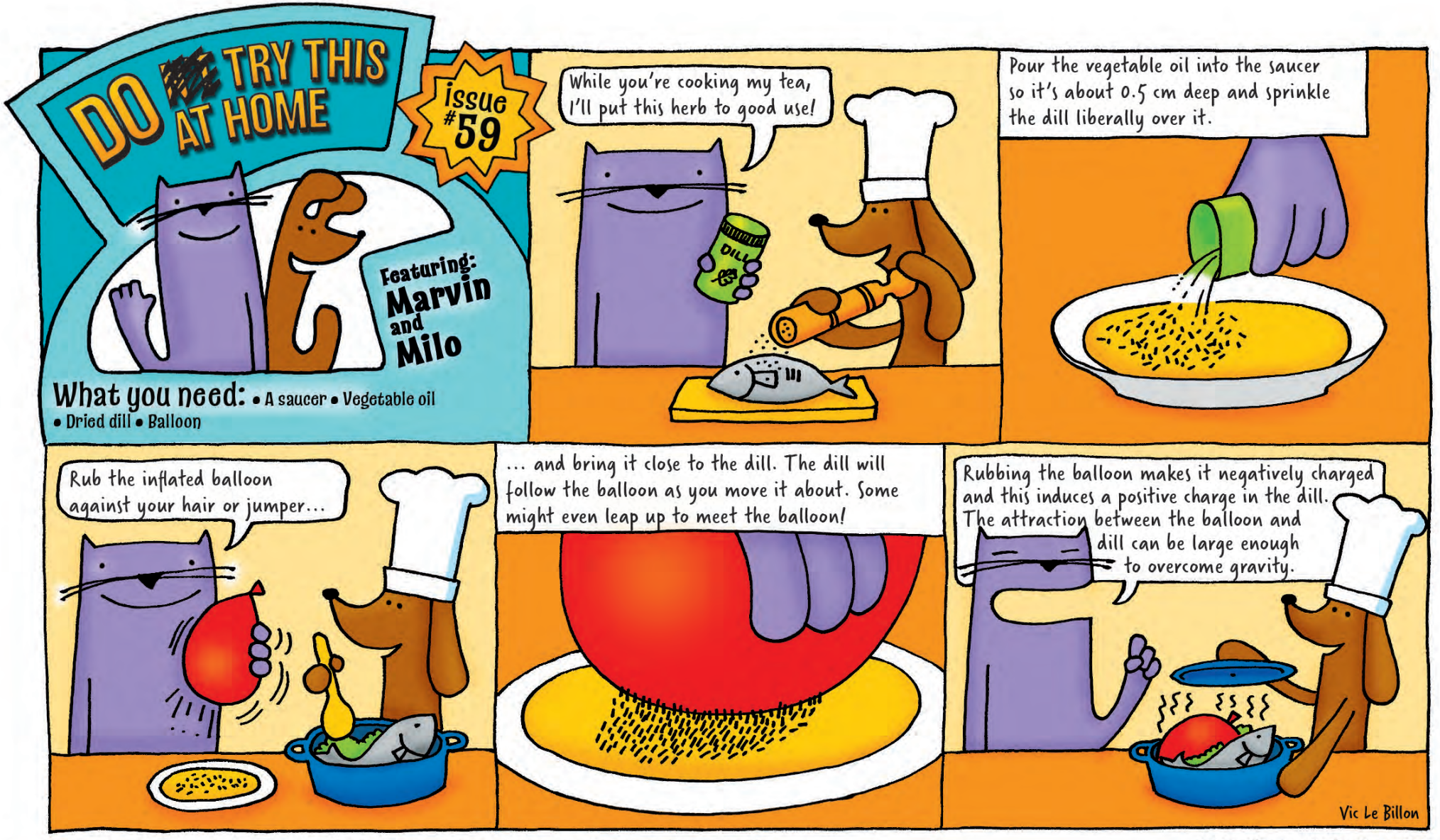

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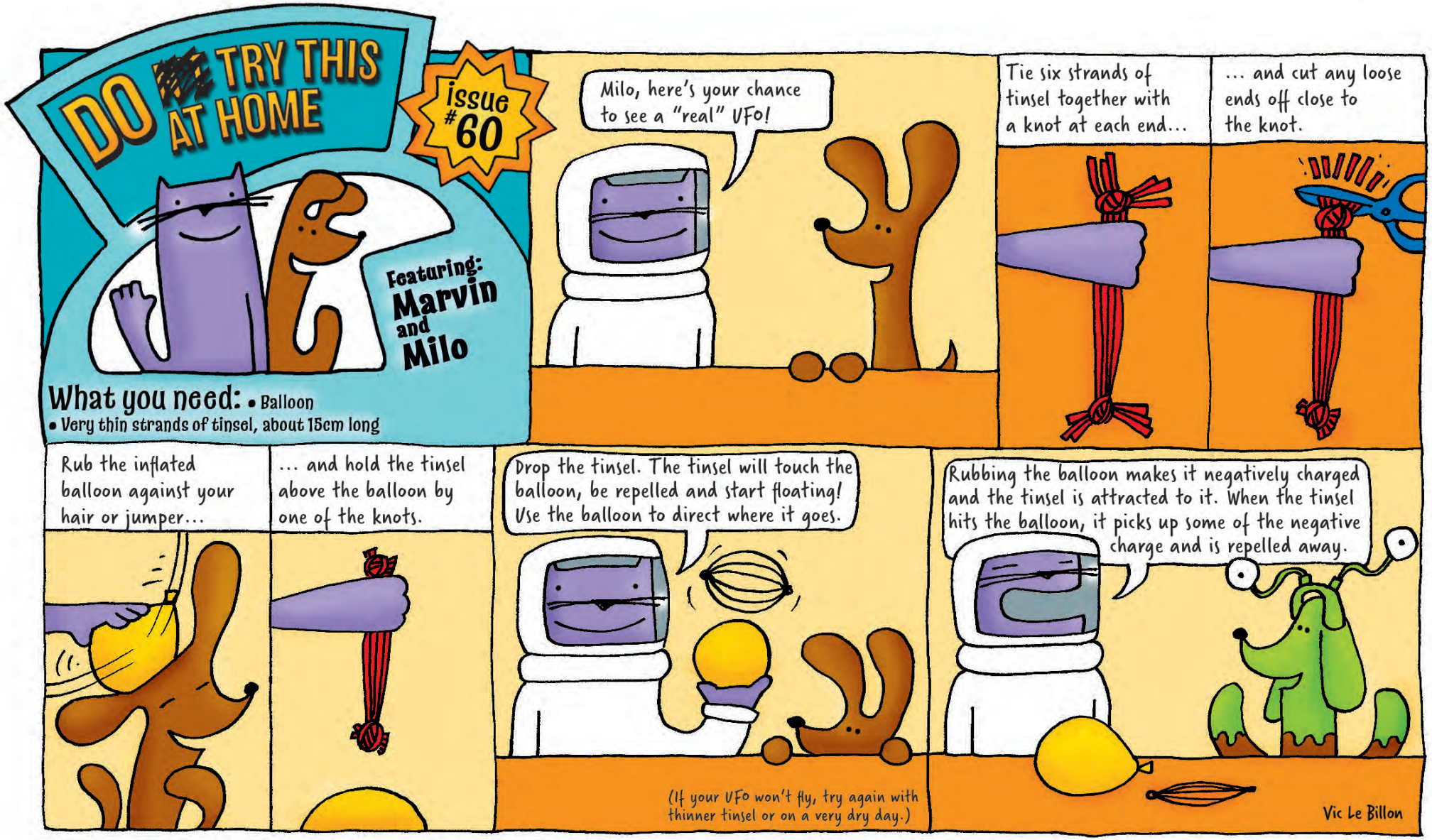

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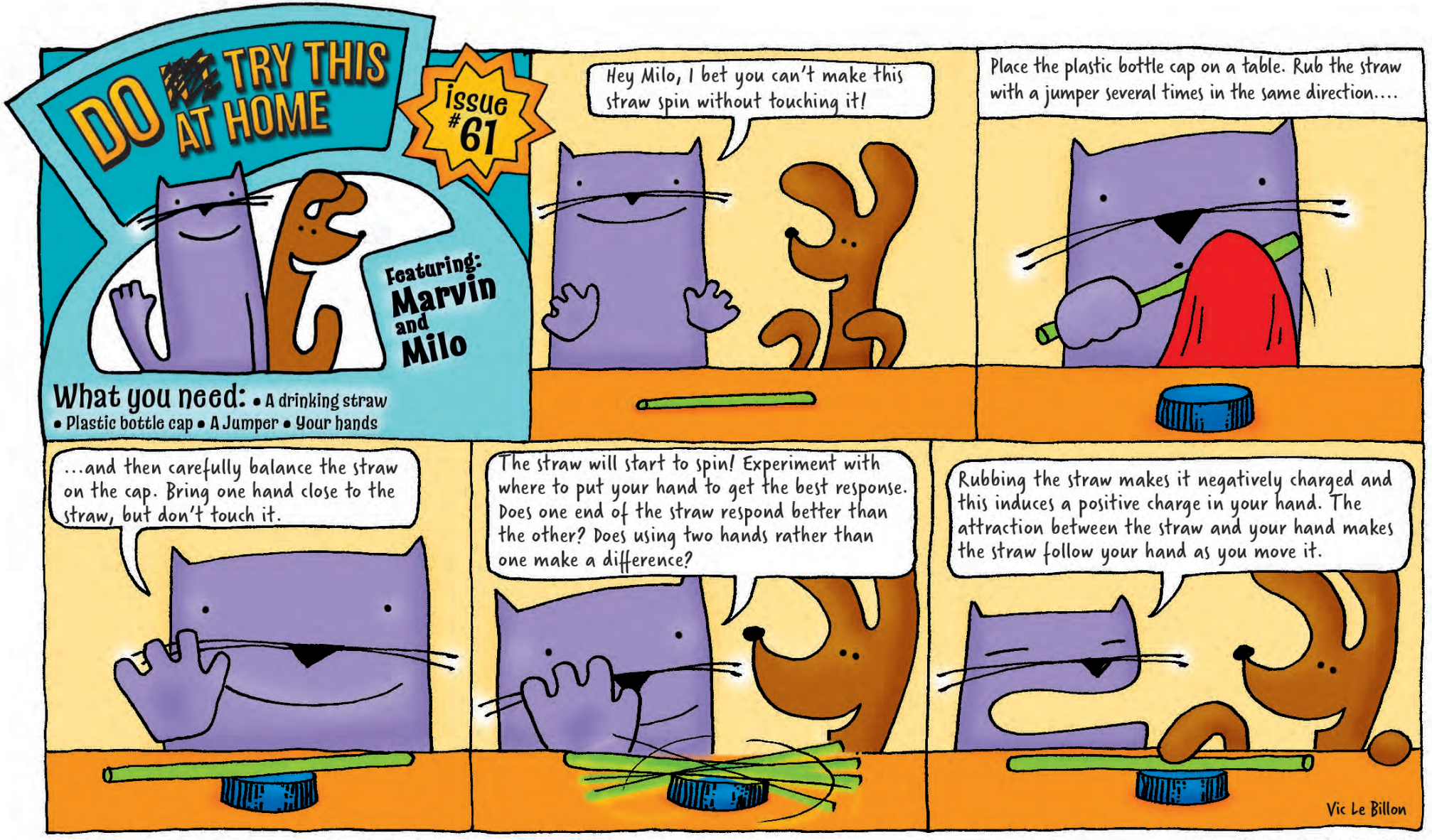

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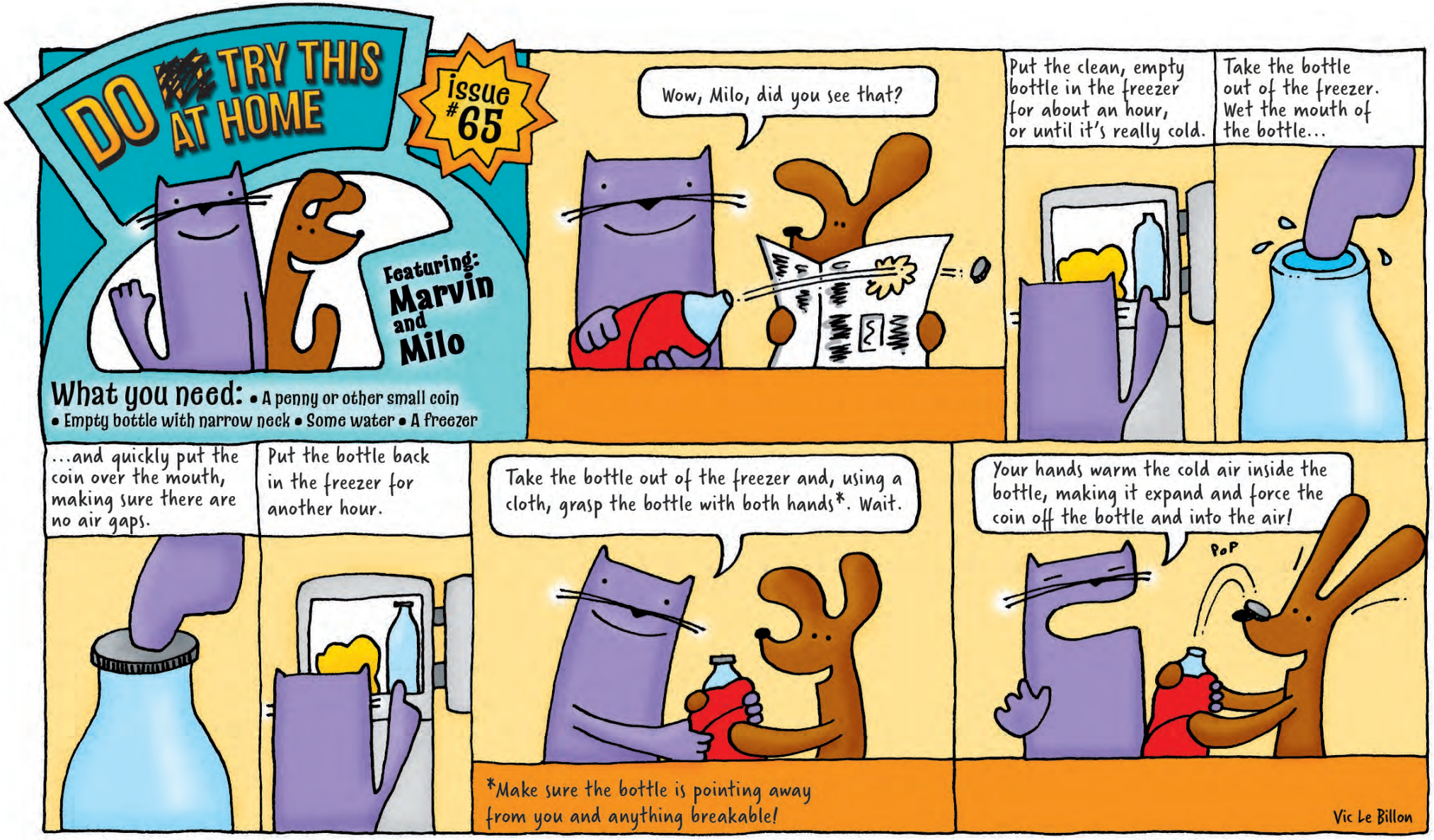

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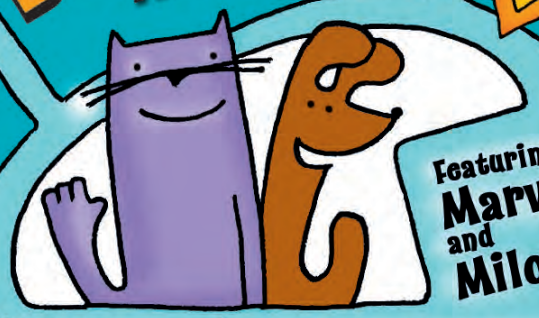
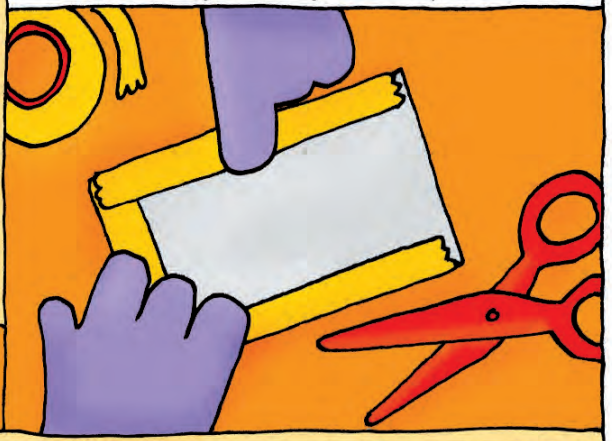
issue #66



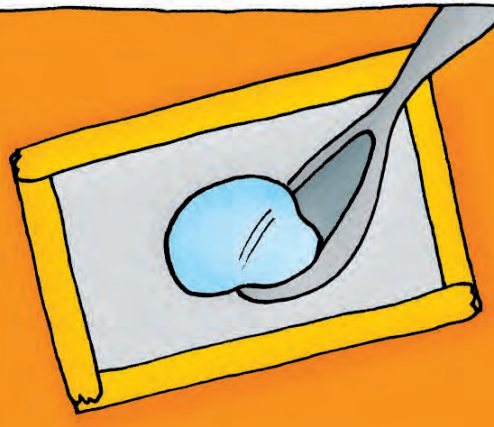
Featuring: Marvin and Milo

What you need: • Sticky tape • Water • Teaspoon • Clear plastic, e.g. from a pop bottle

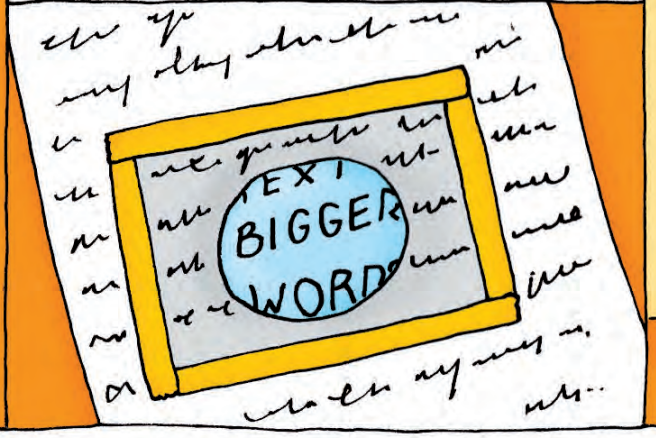
Cut out a small piece of clear plastic (approx 5cm by 3cm) and put sticky tape around the edges if they are sharp.



Use the teaspoon to put a single small drop of water onto the middle of the plastic.



Place the plastic carefully over some text and look straight down through the top of the drop – the text will look bigger!



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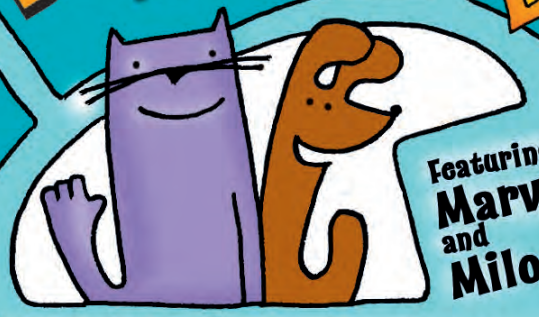
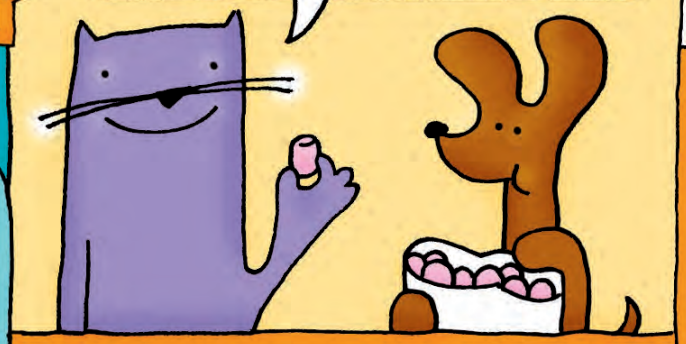
issue #67

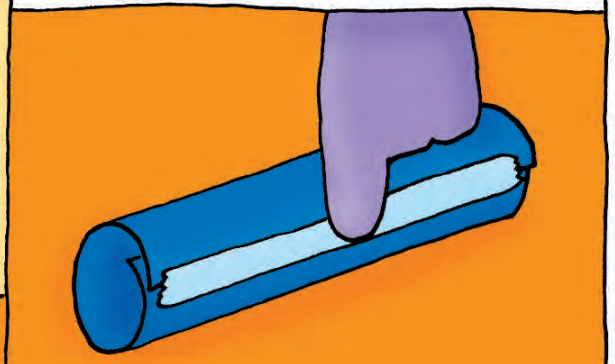
Featuring: Marvin and Milo



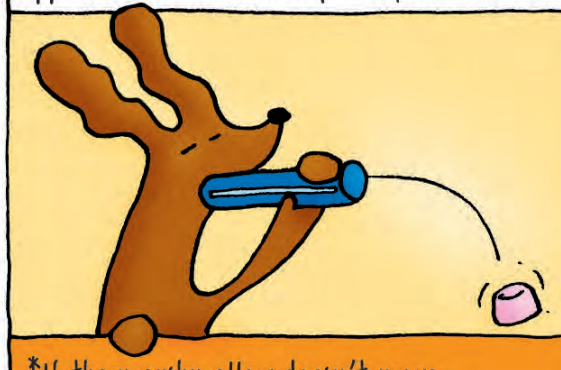
What you need: • Sticky tape • Marshmallows • Piece of thin card (~A4 size)



Roll the piece of card lengthways into a tube that is just wide enough to be a snug fit for a marshmallow. Put tape along the whole length of the tube to hold it together and seal the join.

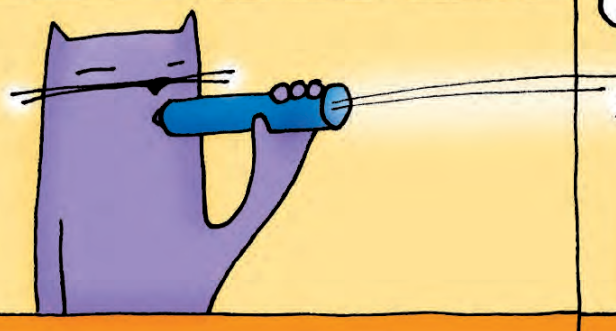


Put a marshmallow in one end of the tube, hold the tube horisontal, and blow from the opposite end.* Note how far it flies.



*If the marshmallow doesn't move, adjust the diameter of the tube.

Try again with a new marshmallow but this time blow from the end with the marshmallow. Keep blowing until the marshmallow leaves the tube.



By blowing as the marshmallow travels along the whole length of the tube, you're applying a force for longer. This means the marshmallow accelerates for longer, emerges from the tube at a greater speed and flies further.

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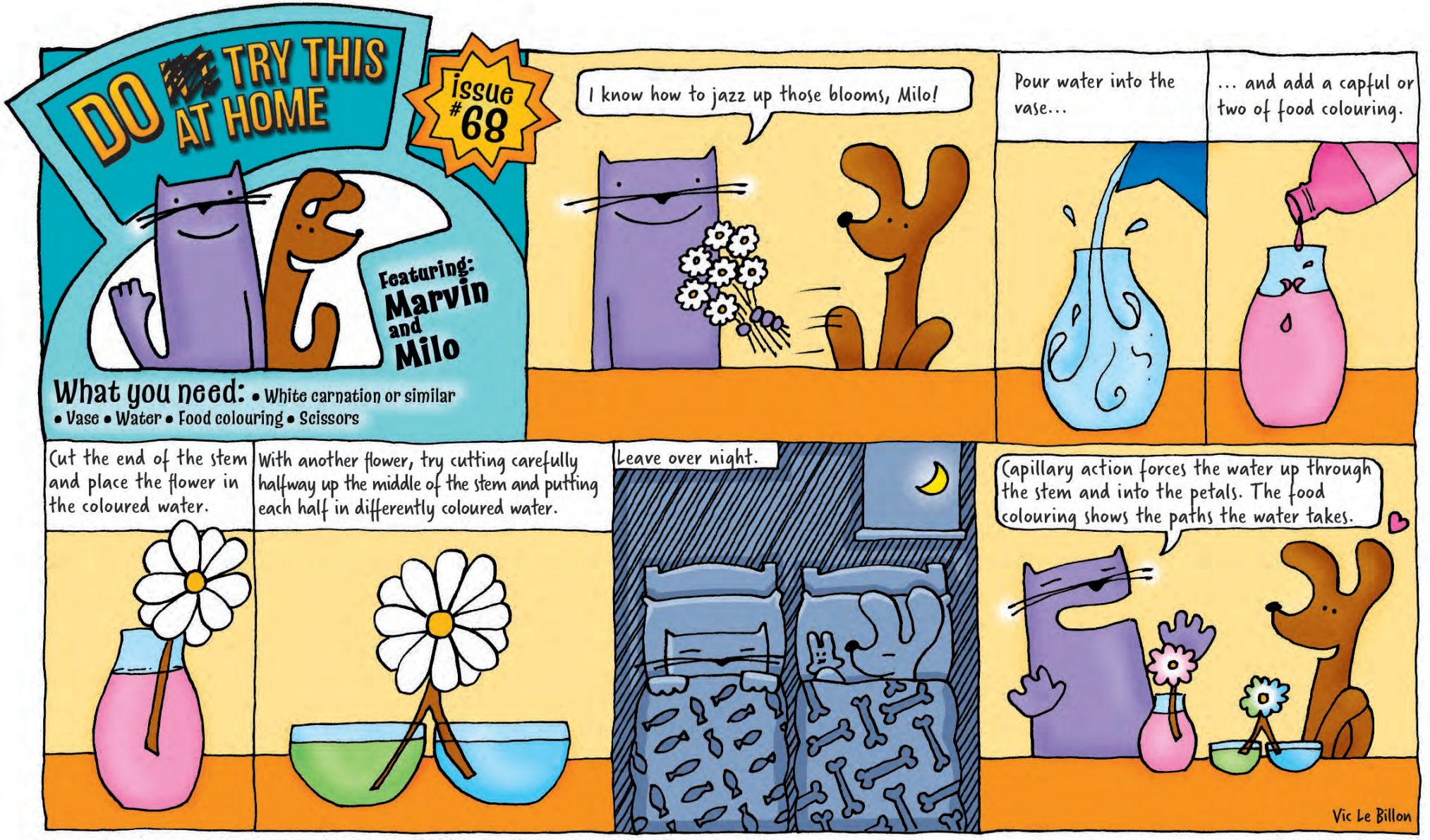

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issue #69

Featuring: Marvin and Milo

What you need: • A small mirror • A blank wall • A friend

Hey Milo, I can make you disappear!

Sit opposite your friend and next to a pale, blank wall.

With the wall to your right, hold the mirror in your left hand and put it next to your nose.

With your left eye looking at your friend, wave your right hand so your right eye can see it reflected in the mirror.

Each eye is seeing something very different and as your brain tries to make a sensible single image, it combines bits from both eyes. But your brain is sensitive to movement so it focuses on your moving hand and your friend disappears.

Angle the mirror so that your right eye sees only a reflection of the wall.

Watch bits of your friends's face disappear! Don't give up if it doesn't work straight away – try switching eyes, holding your head very still and making sure your friend doesn't fidget.

Vic Le Billon

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DO TRY THIS AT HOME

issue #70

Featuring: Marvin and Milo

What you need: • A teacup or mug • A teaspoon • Good ears

That's strange, did you hear that Milo?

If you tap the rim of the teacup by the handle, opposite the handle or at the two points half way round the rim, then you hear a low pitched sound.

'clunk'
'clunk'

But if you tap the rim of the teacup halfway between those points, you hear a sound that is higher in pitch.

'chink'
'chink'

Tapping the rim causes vibrations around the cup, but at the handle the movement is always at a minimum.

So tapping at the specific points on the rim sets up vibrations with different wavelengths and you hear notes of different pitches, or frequencies.

'clunk' 'chink'
'clunk'
'chink'
'clunk'
'plink'
'chink'

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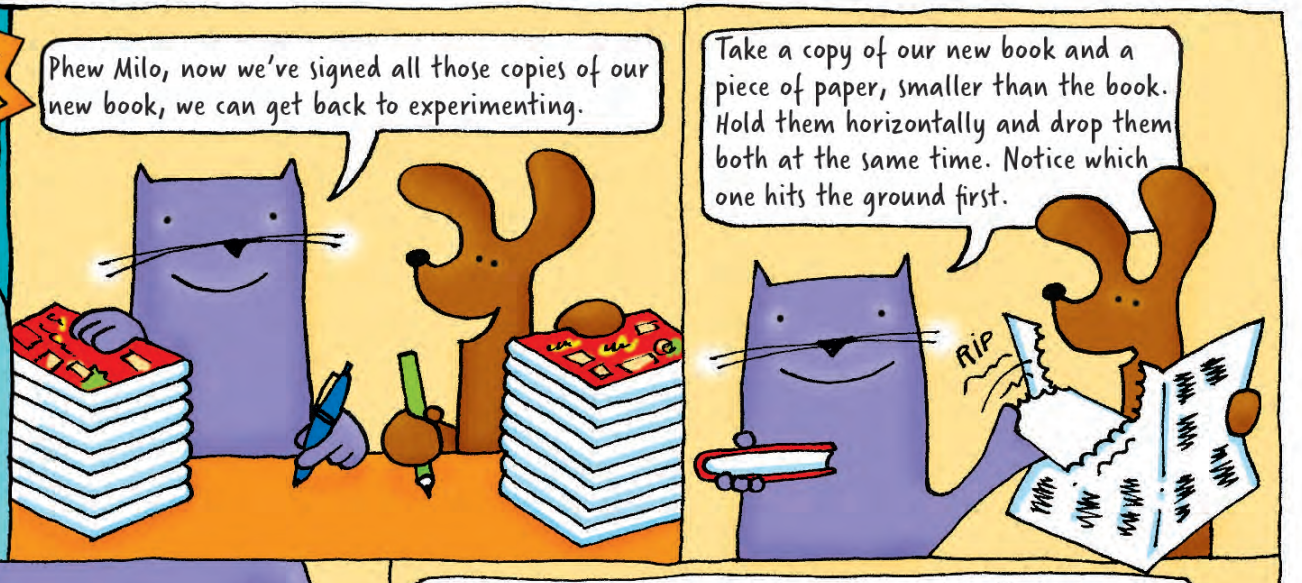
issue #72

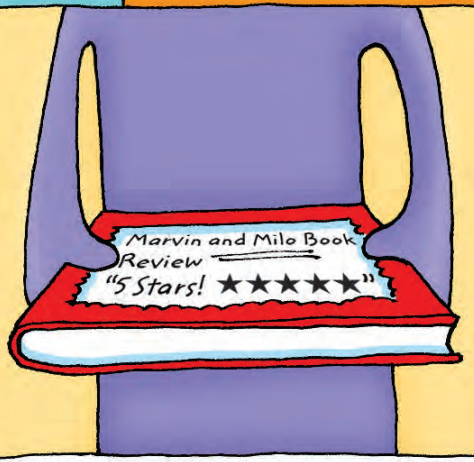
Featuring: Marvin and Milo

What you need:

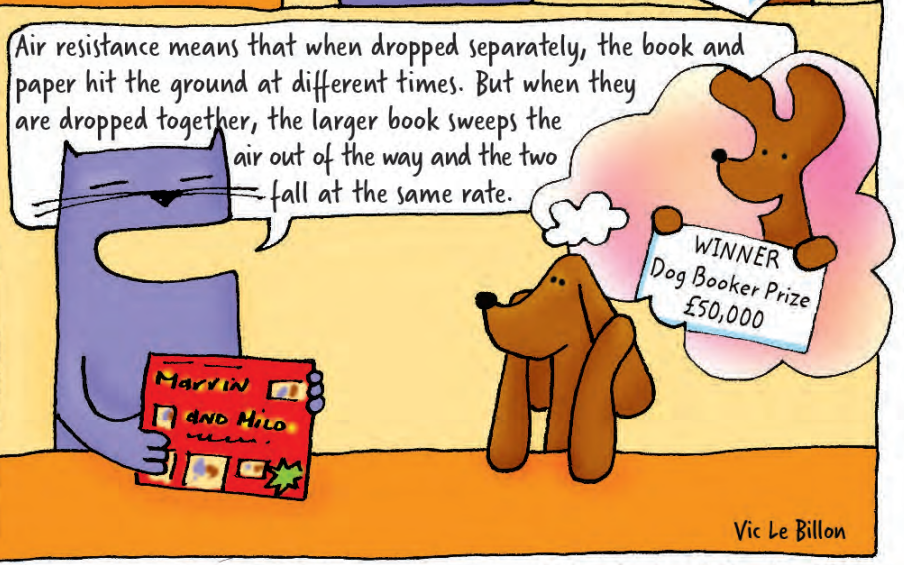
• A piece of paper smaller than a book • A book



Now put the piece of paper flat against the bottom side of the book and drop them together. What happens?



Drop them again, but this time with the paper on top of the book. What happens?



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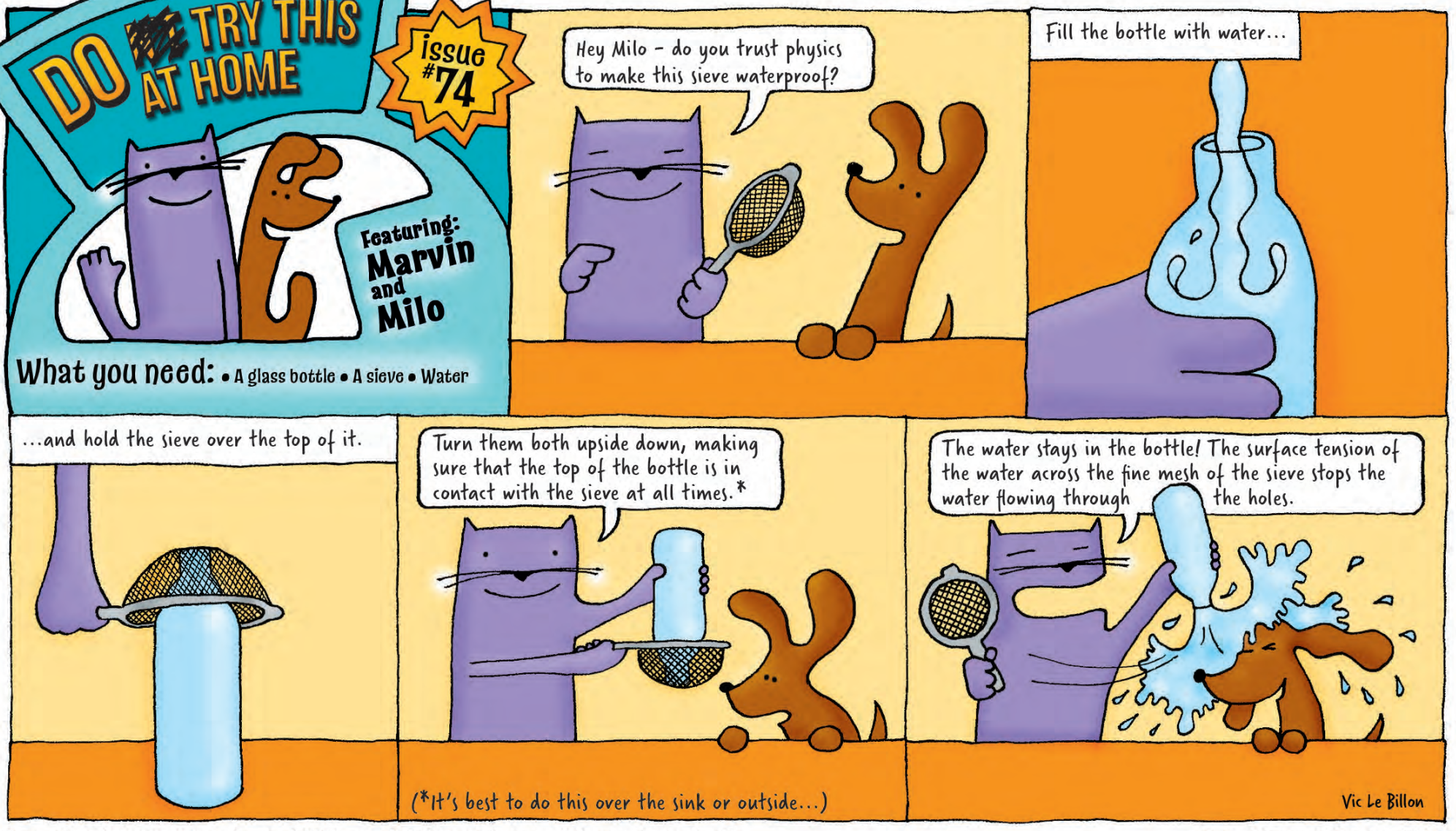
issue #74

Featuring: Marvin and Milo

What you need: • A glass bottle • A sieve • Water



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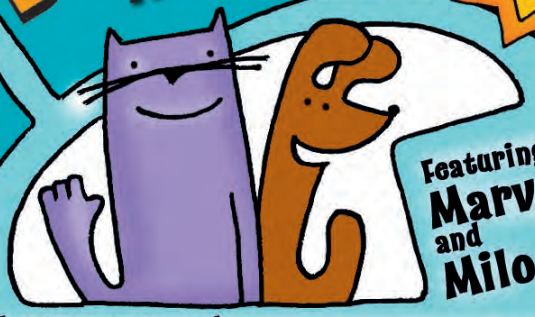
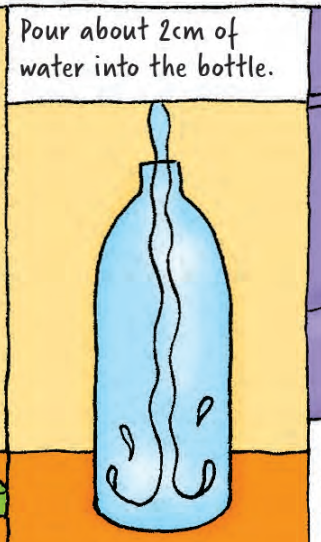


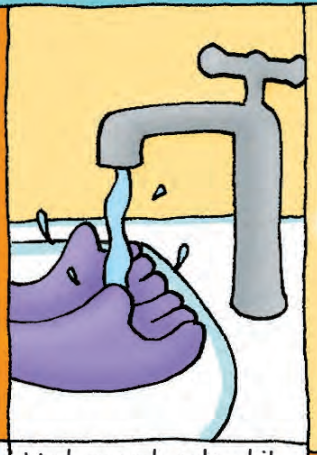
Featuring: Marvin and Milo

What you need: • A small glass bottle • Water • An effervescent indigestion tablet



Blow across the top of the bottle and listen carefully to the sound it makes.

Break the tablet in two, and put both halves into the bottle.



Wash your hands while you wait for it to stop fizzing.

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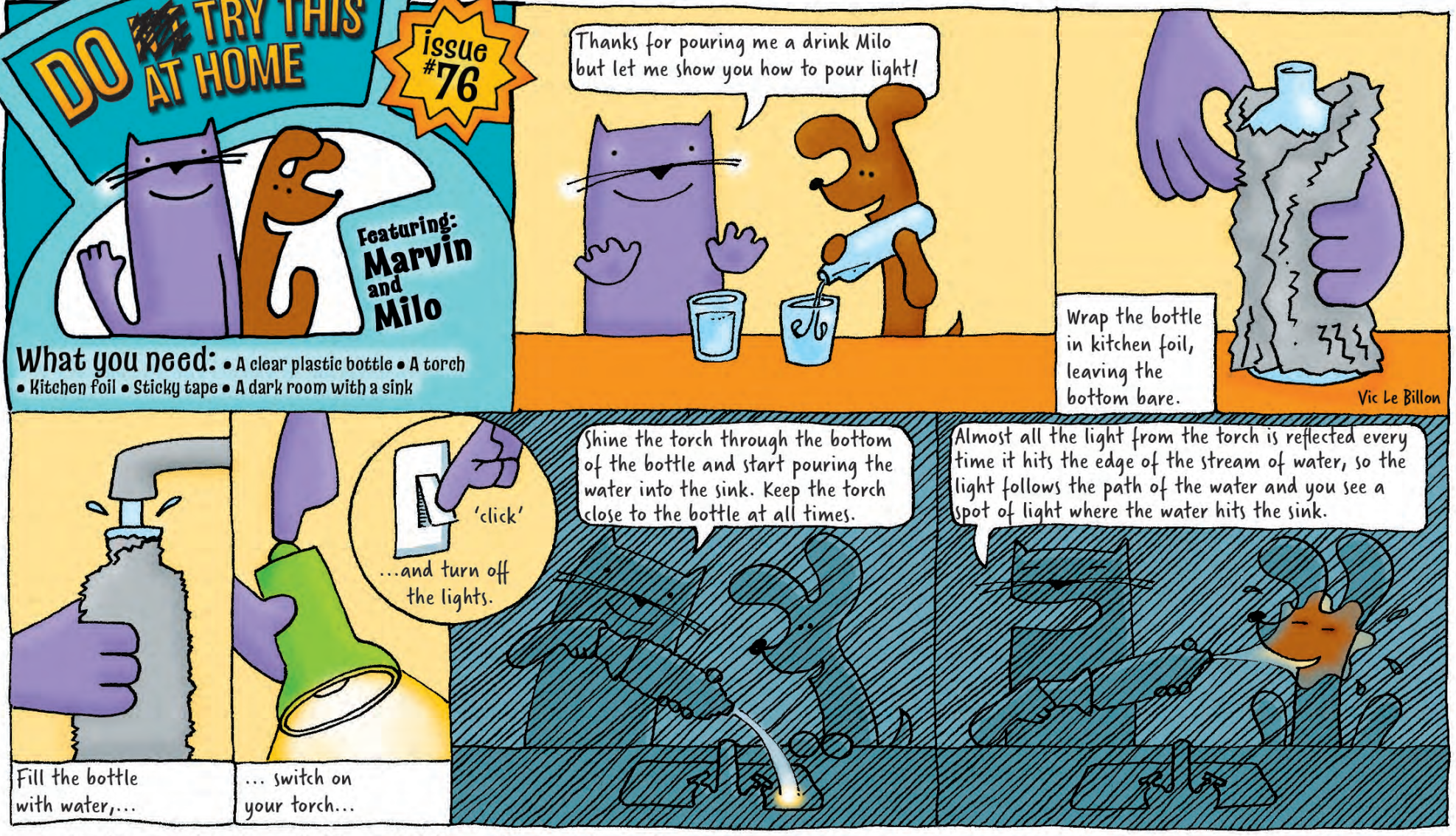
issue #76

Featuring: Marvin and Milo

What you need: • A clear plastic bottle • A torch • Kitchen foil • Sticky tape • A dark room with a sink



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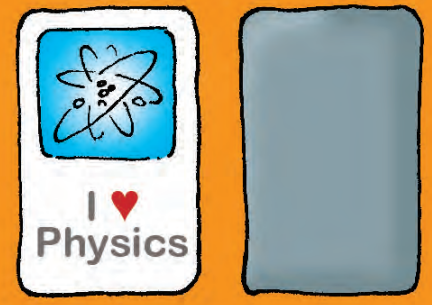
issue #77

Featuring: Marvin and Milo

What you need: • Two flat, rectangular fridge magnets*

*If you only have circular magnets, you'll need to do some experimenting to feel this effect!

That's a great collection Milo. Can I borrow two?



Place the magnets side by side on a table: one face up and one face down.

Put one magnet on top of the other so that the two magnetic sides are touching. Try to slide them apart along the longest side. How easily do they slide?

Try sliding them apart again, but this time along the shortest side. How well do the magnets slide now?

Fridge magnets are made from thin strips of magnets with alternating north and south poles. As you try to slide the magnets across each other, the thin strips are being attracted and then repelled, making the magnets judder.

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Issue #79

Featuring: Marvin and Milo

What you need: • A metal coat hanger • A pound coin • A file

Hey Milo, take a break from the ironing and have a go at this!

Carefully pull the coat hanger out of shape until it forms a square.

Bend the hook so that it points towards the newly-formed corner...

...and file the end flat.

With the coat hanger on one finger, balance the coin on the hook. This might take some patience!

Once the coin is in place, start swinging the hanger back and forth. Can you get the hanger to swing in a complete circle without the coin falling off?

The circular motion of the hanger means that a centripetal force acts to keep the coin firmly in place while you're...

...swinging.

Vic Le Billon

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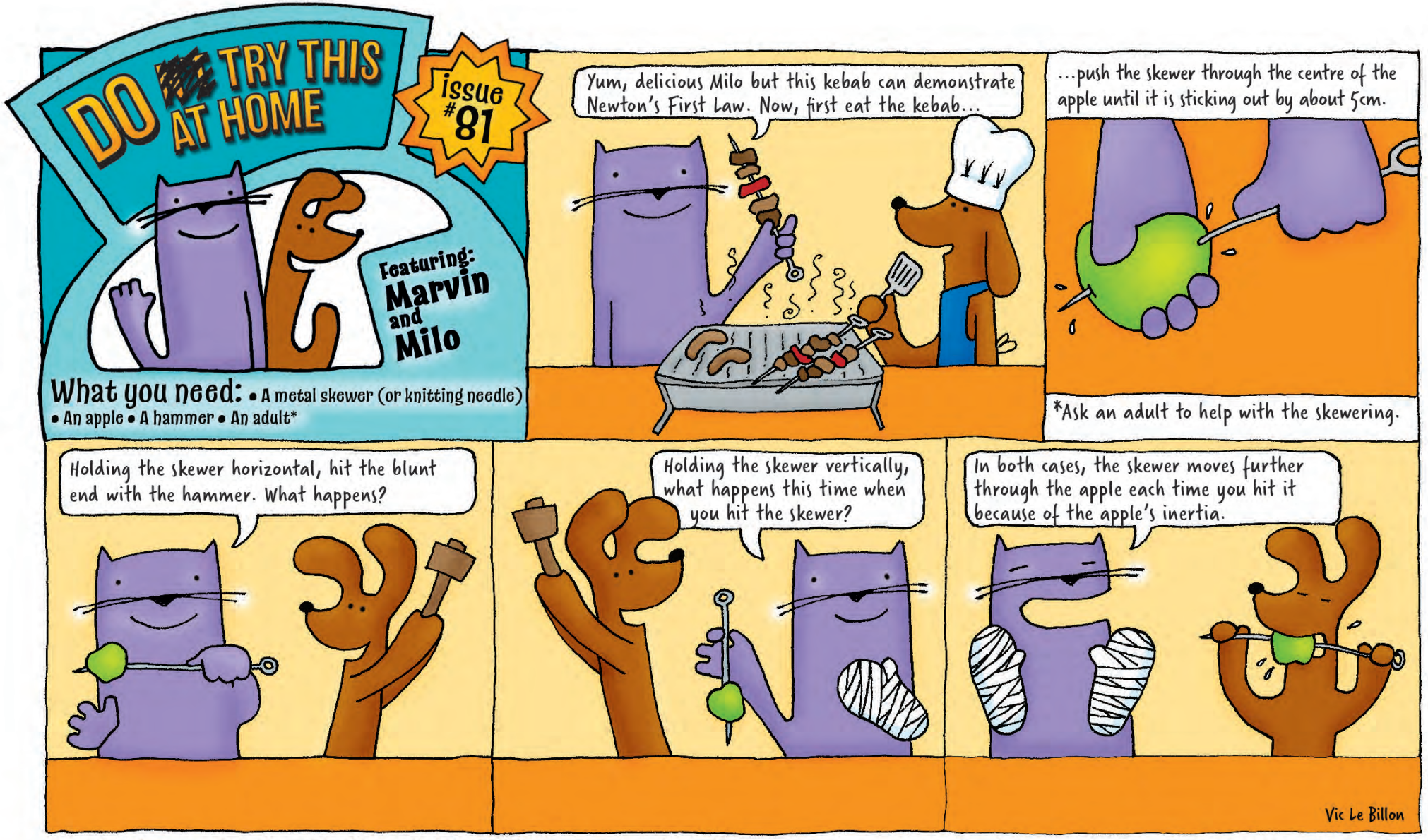

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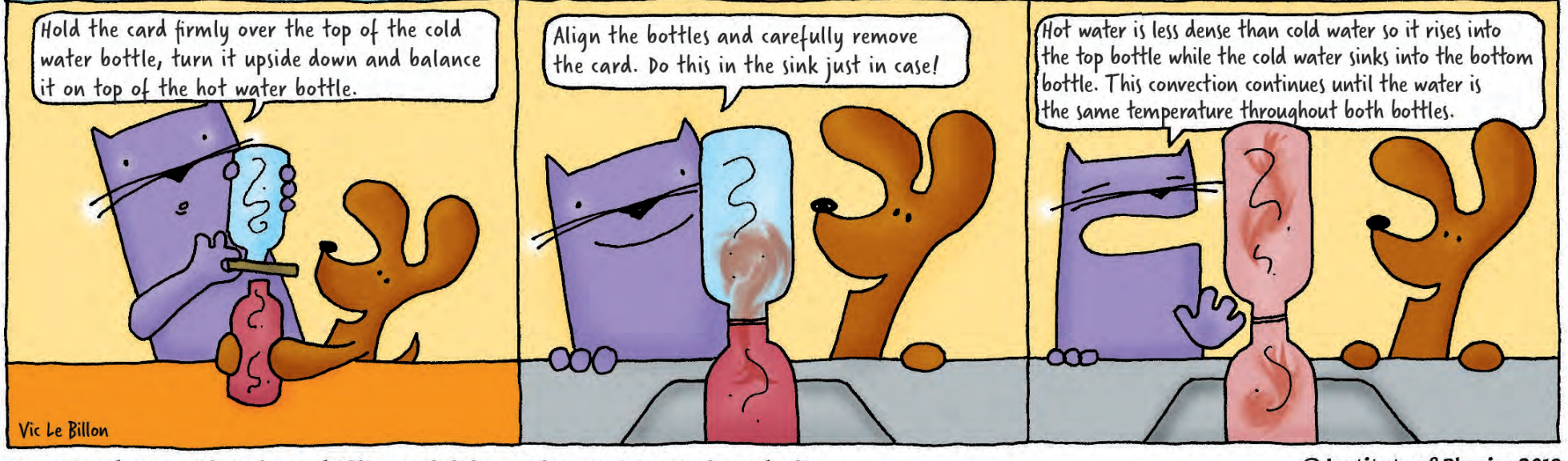
Issue #82

Featuring: Marvin and Milo

What you need: • Two plastic drinks bottles • Cold water • Hot water • Sink • Piece of card • Red food colouring



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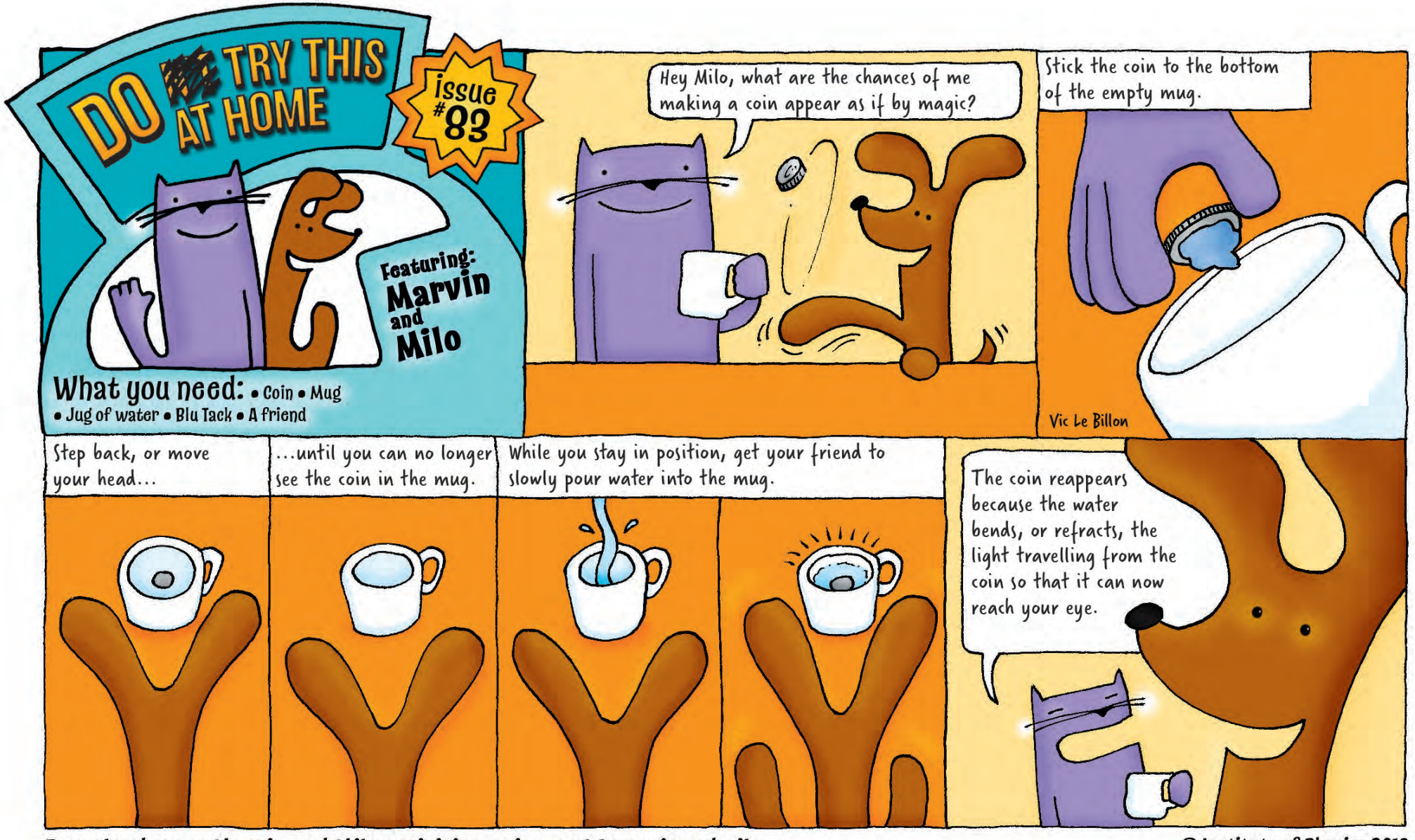

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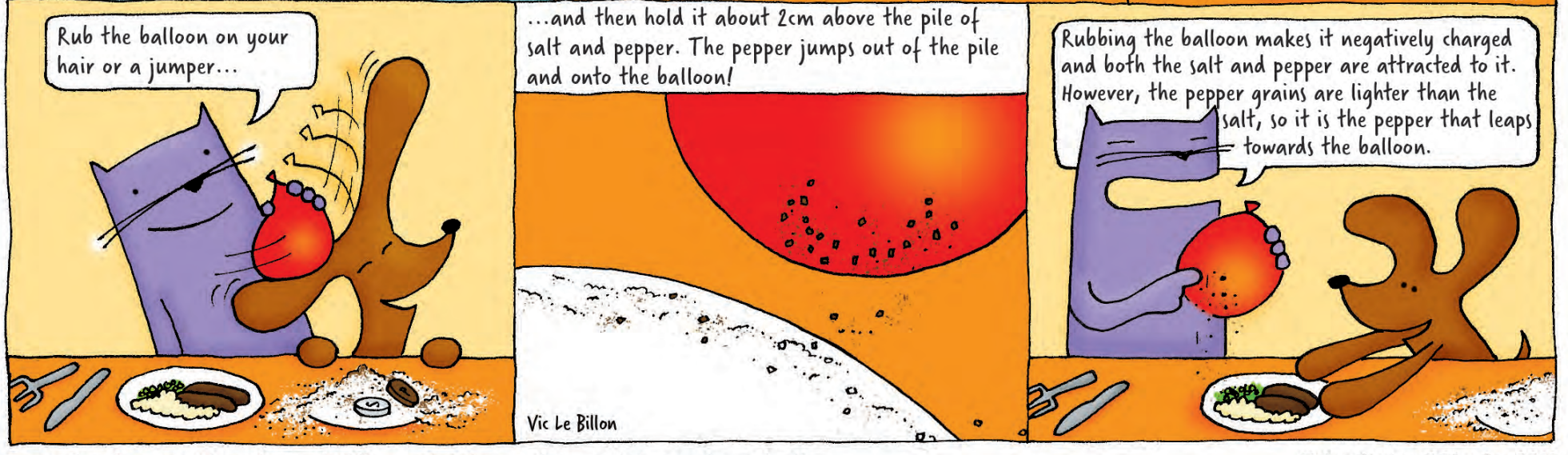
issue #84

Featuring: Marvin and Milo

What you need: • Ground pepper • Ground salt • Balloon



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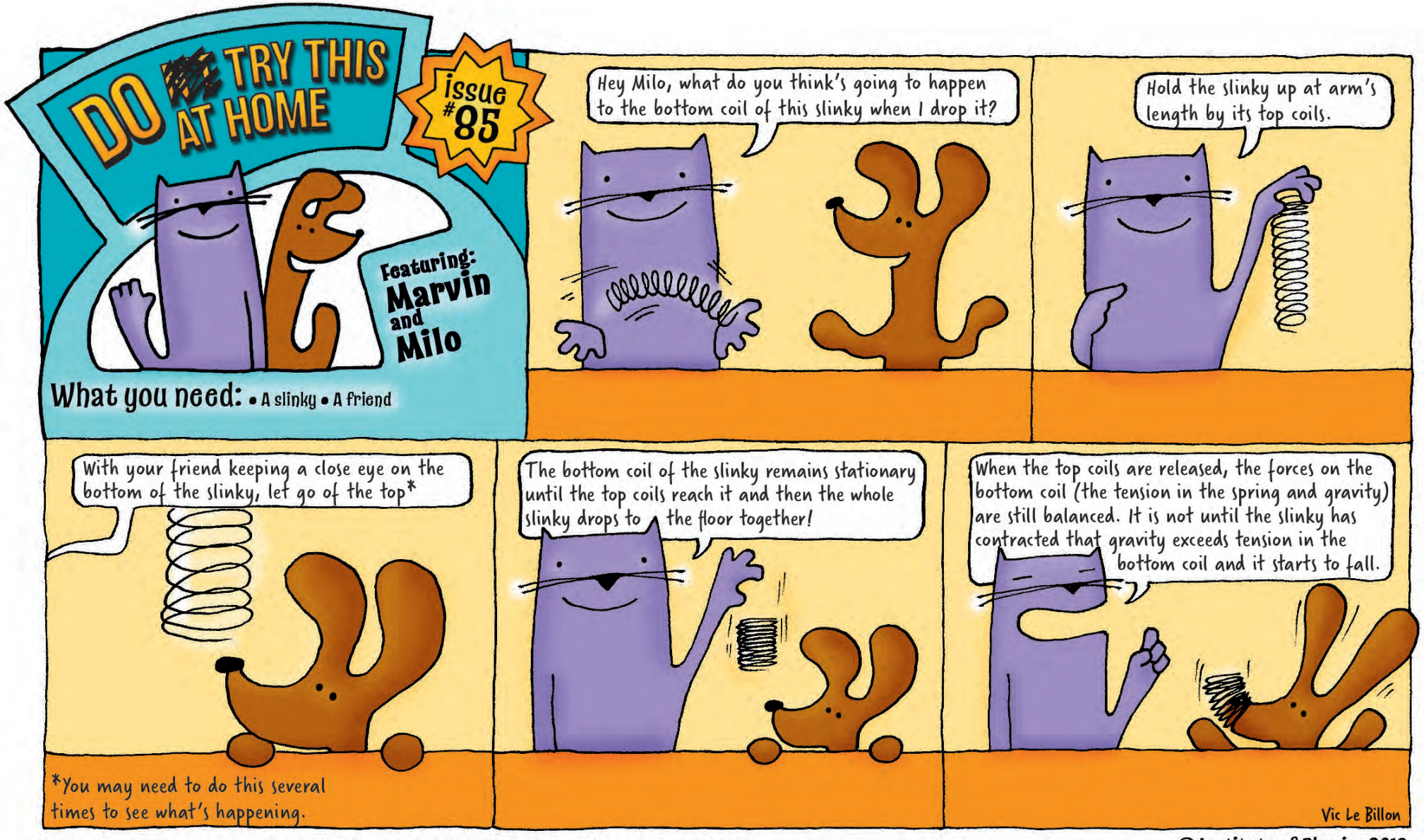

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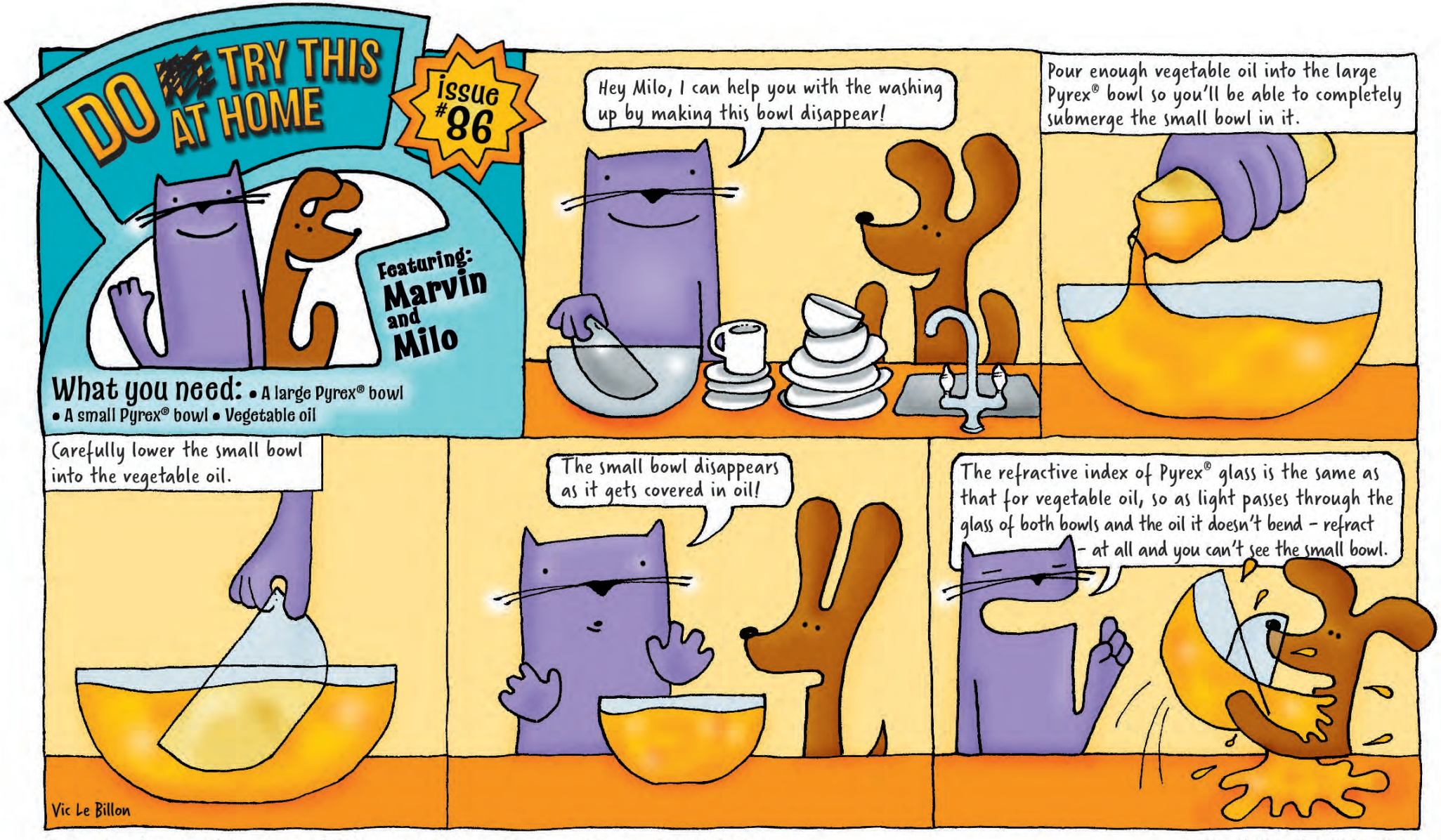

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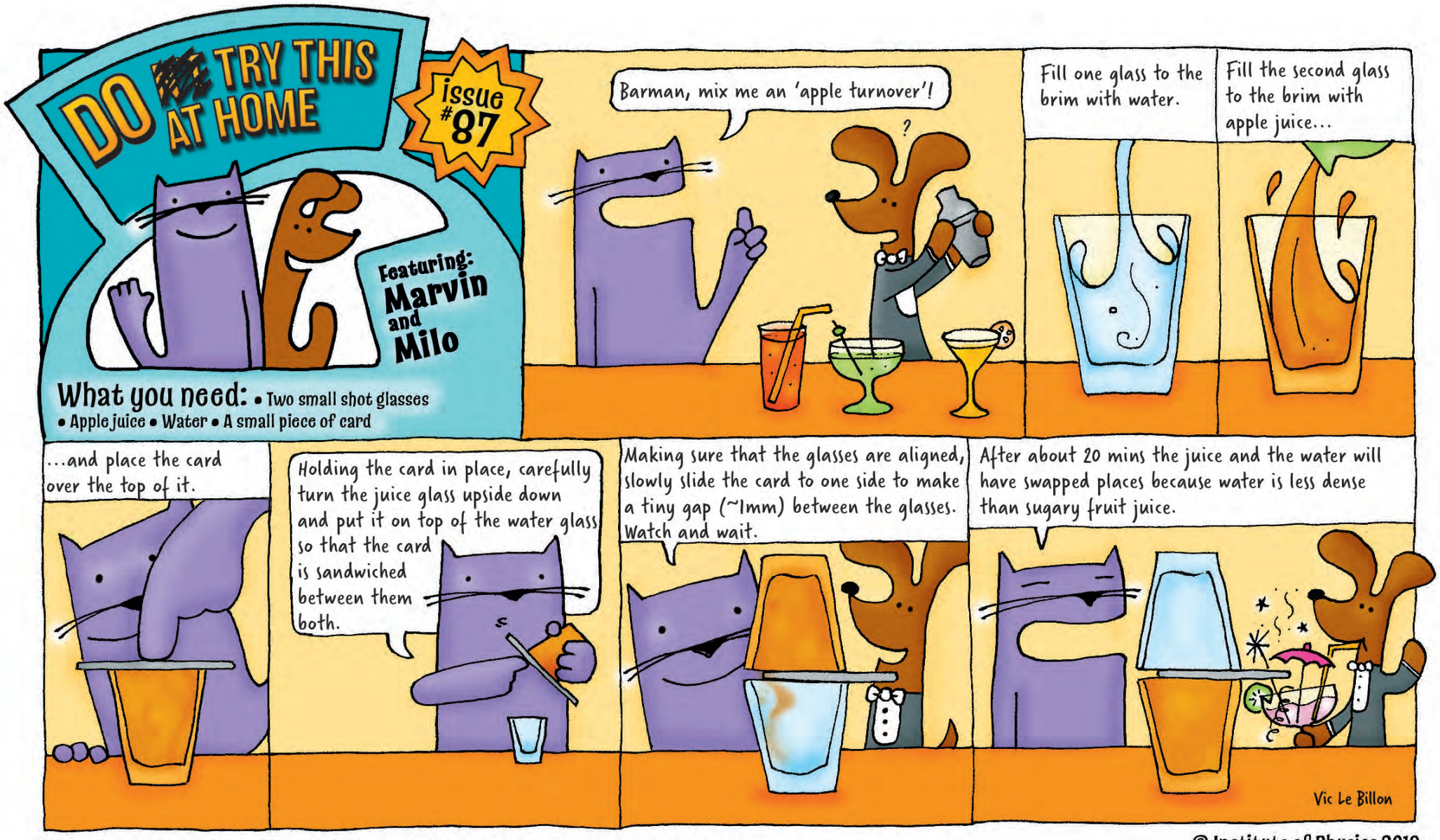

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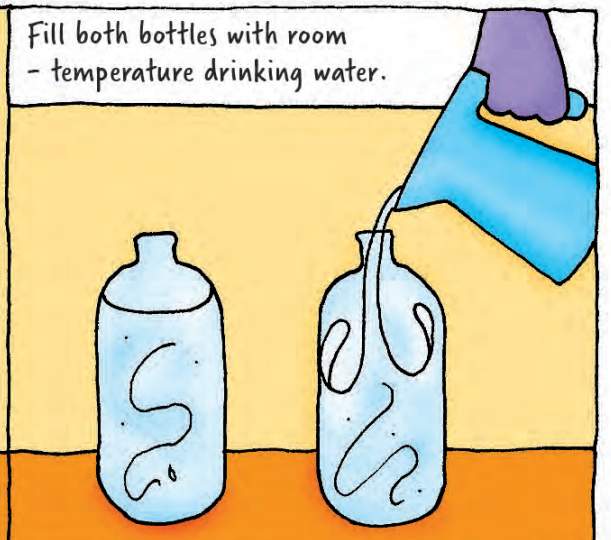
issue #89

Featuring: Marvin and Milo

What you need: • Two small plastic bottles • Kitchen paper • Sticky tape • Drinking water at room temperature • A breezy day*



*on a still day, you'll just have to wait a bit longer

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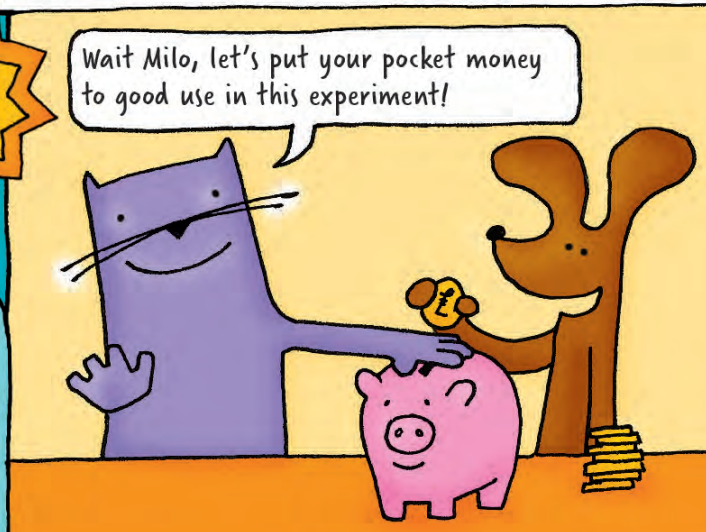
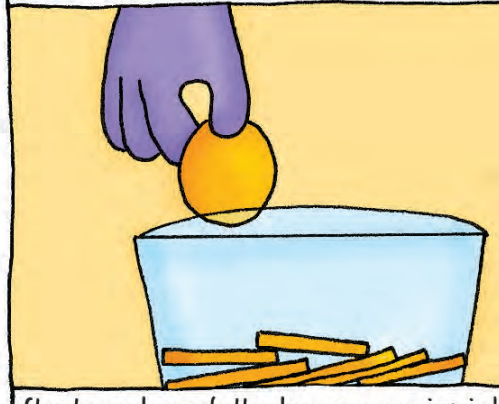
issue #90

Featuring: Marvin and Milo

What you need: • Some washing up liquid • A glass of water • A pile of coins • A saucer

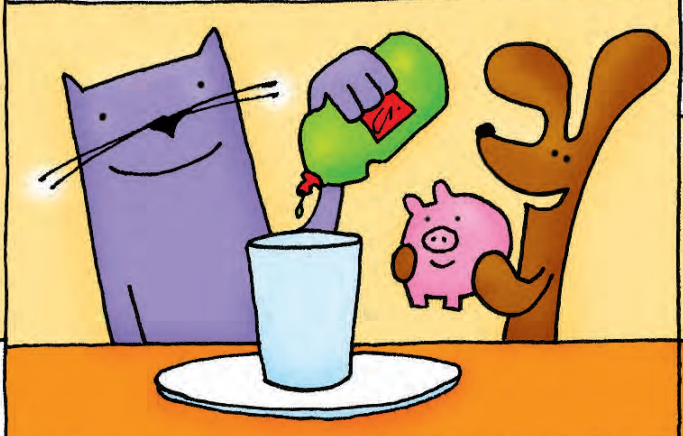


Carefully drop a coin into the water, edge first.

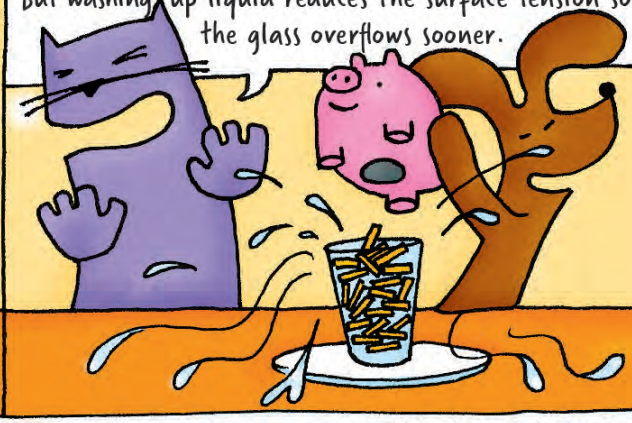


Slowly and carefully drop more coins into the water – how many can you add before the glass overflows?

Try again, but this time add a few drops of washing up liquid to the water before you start adding the coins.



Water molecules are strongly attracted to each other, creating a surface tension that allows the water to bulge over the top of the glass as you add the coins. But washing up liquid reduces the surface tension so the glass overflows sooner.



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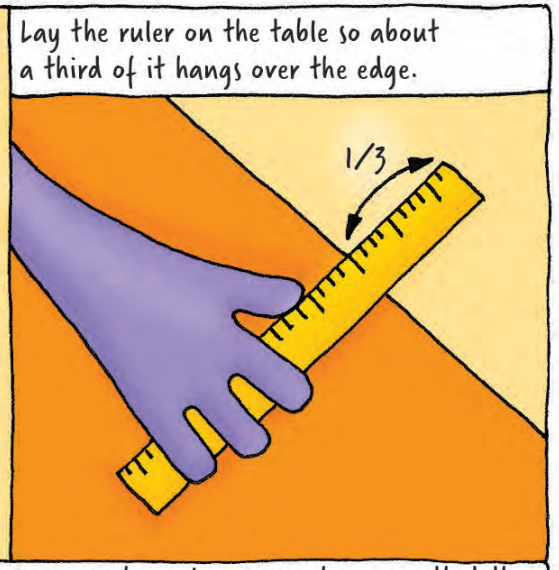
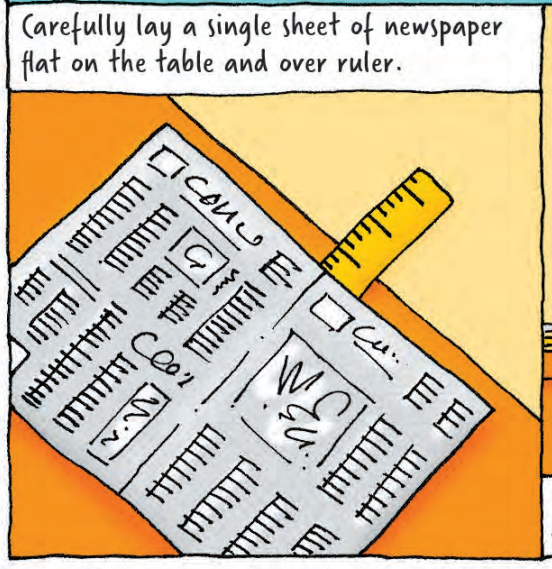
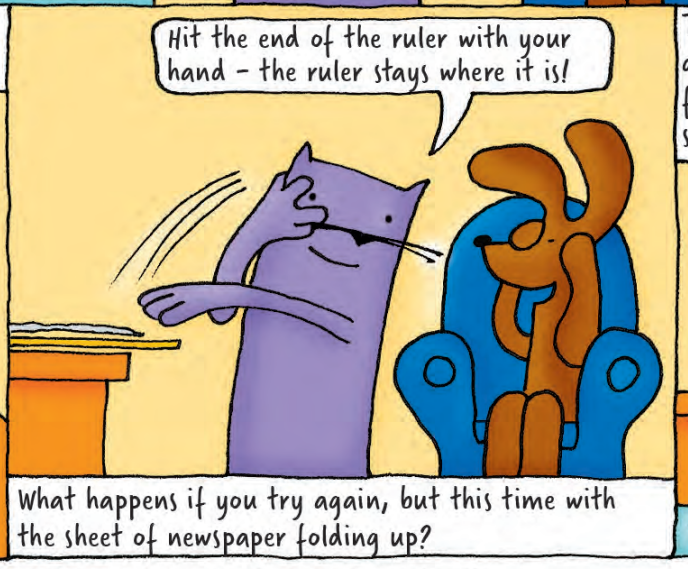
issue #91

Featuring: Marvin and Milo

What you need: • A table • A ruler • A nespaper







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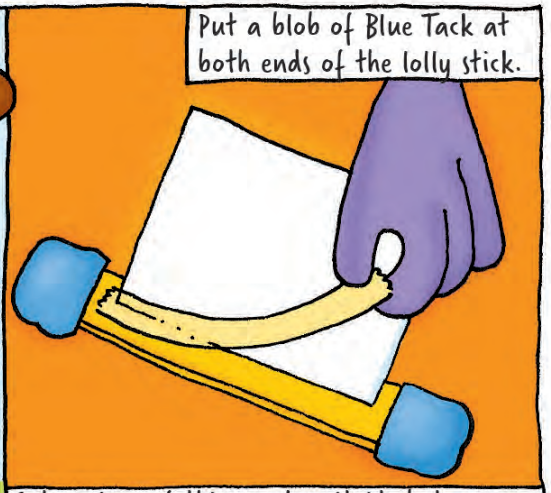
issue #92

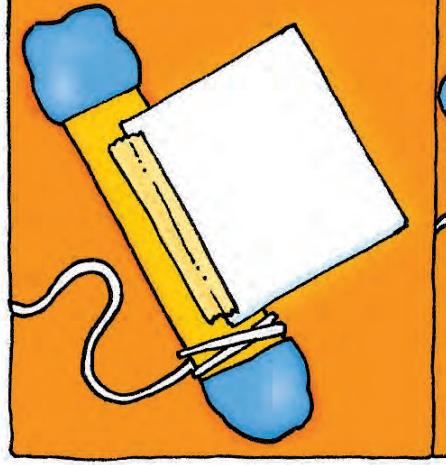
Featuring: Marvin and Milo

What you need: • An ice lolly stick • Blu Tack • String • A thick rubber band • Sticky tape • Thin card • Scissors

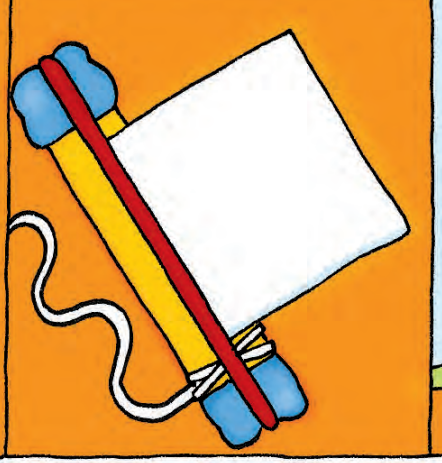


Cut a piece of thin card so it fits between the blobs, then tape it to the stick.

Tie a piece of string securely next to one of the blobs of Blu Tack.

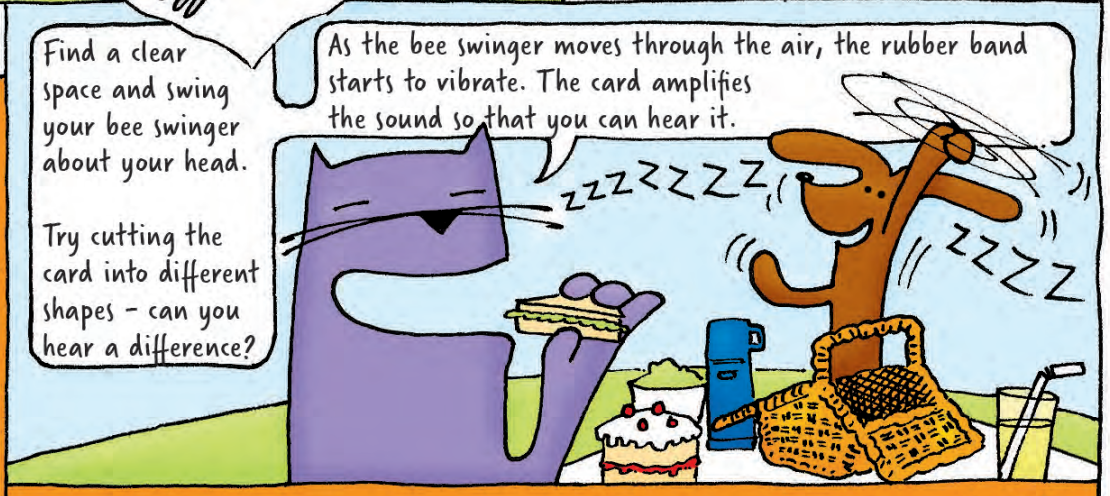


Then stretch the rubber band around the lolly stick.



Find a clear space and swing your bee swinger about your head.

Try cutting the card into different shapes – can you hear a difference?



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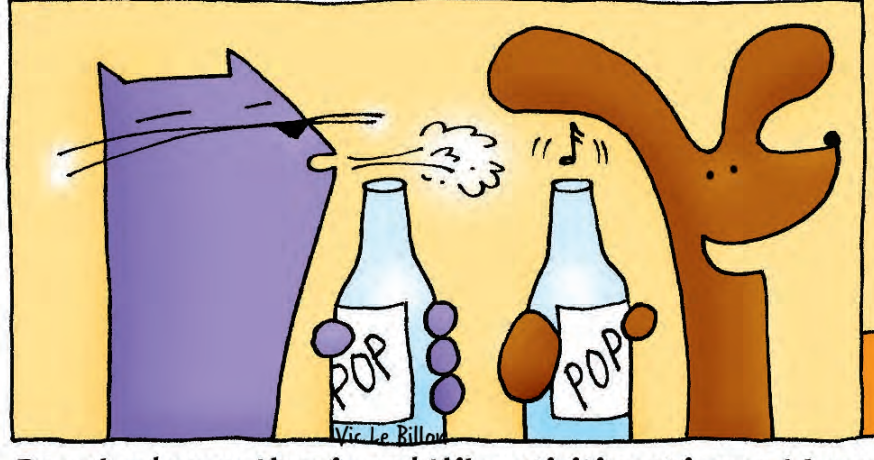
issue #93

Featuring: Marvin and Milo

What you need:
- Two identical glass bottles
- A friend

Standing quite close to your friend, blow across the mouth of your bottle and in the direction of your friend, so that you make a clear note.



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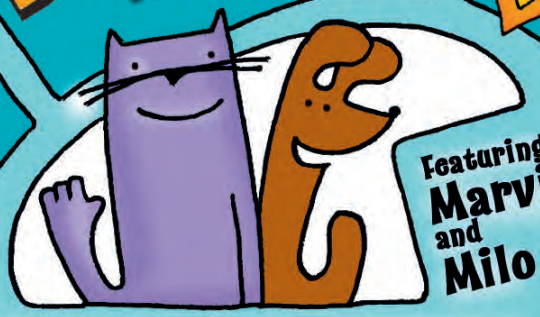
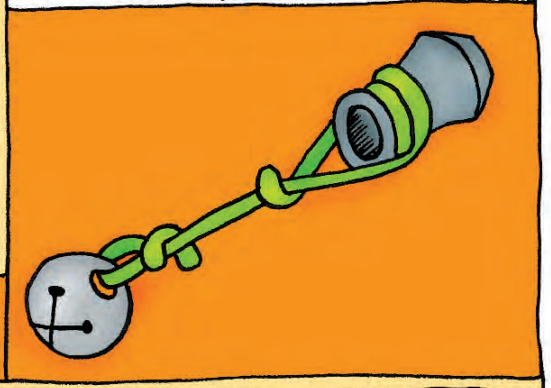


Featuring: Marvin and Milo

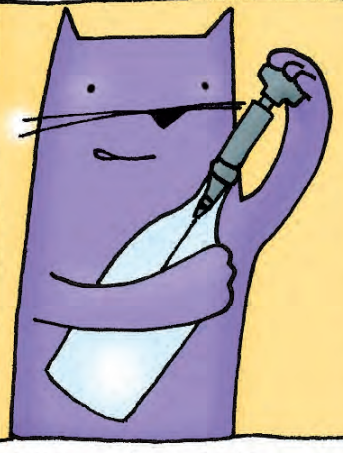
What you need: • Glass bottle • Pipe cleaner • Small bell • Wine saver pump and stopper

Attach one end of the pipe cleaner to the bell. Attach the other end to the stopper so that it can still form a good seal with the bottle. (You may need to experiment with the best way to do this.)



Put the stopper in the bottle, making sure that the bell doesn't hit the side of the bottle when you shake it. You should be able to hear the bell.

Use the wine saver pump to take as much air out of the bottle as you can.



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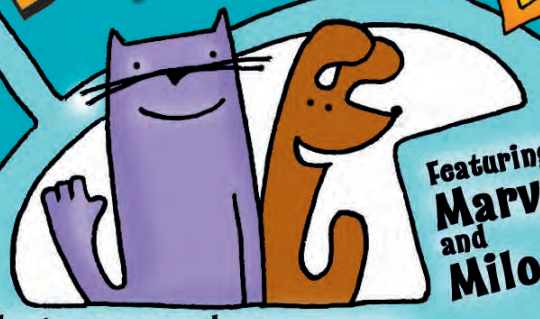
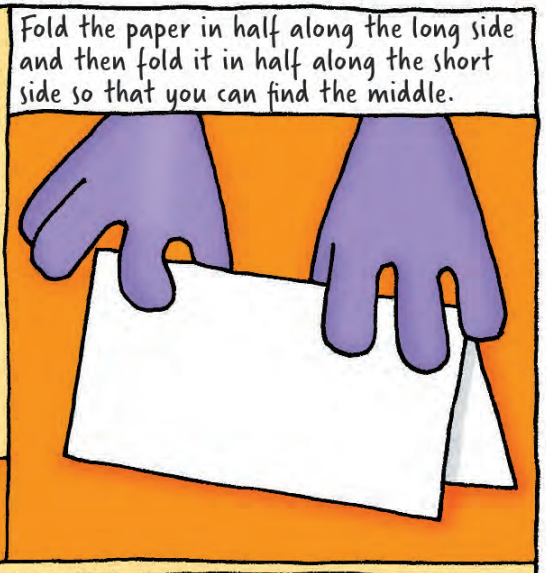


Featuring: Marvin and Milo

What you need:
- A sharp pencil
- A small, rectangular piece of thin paper



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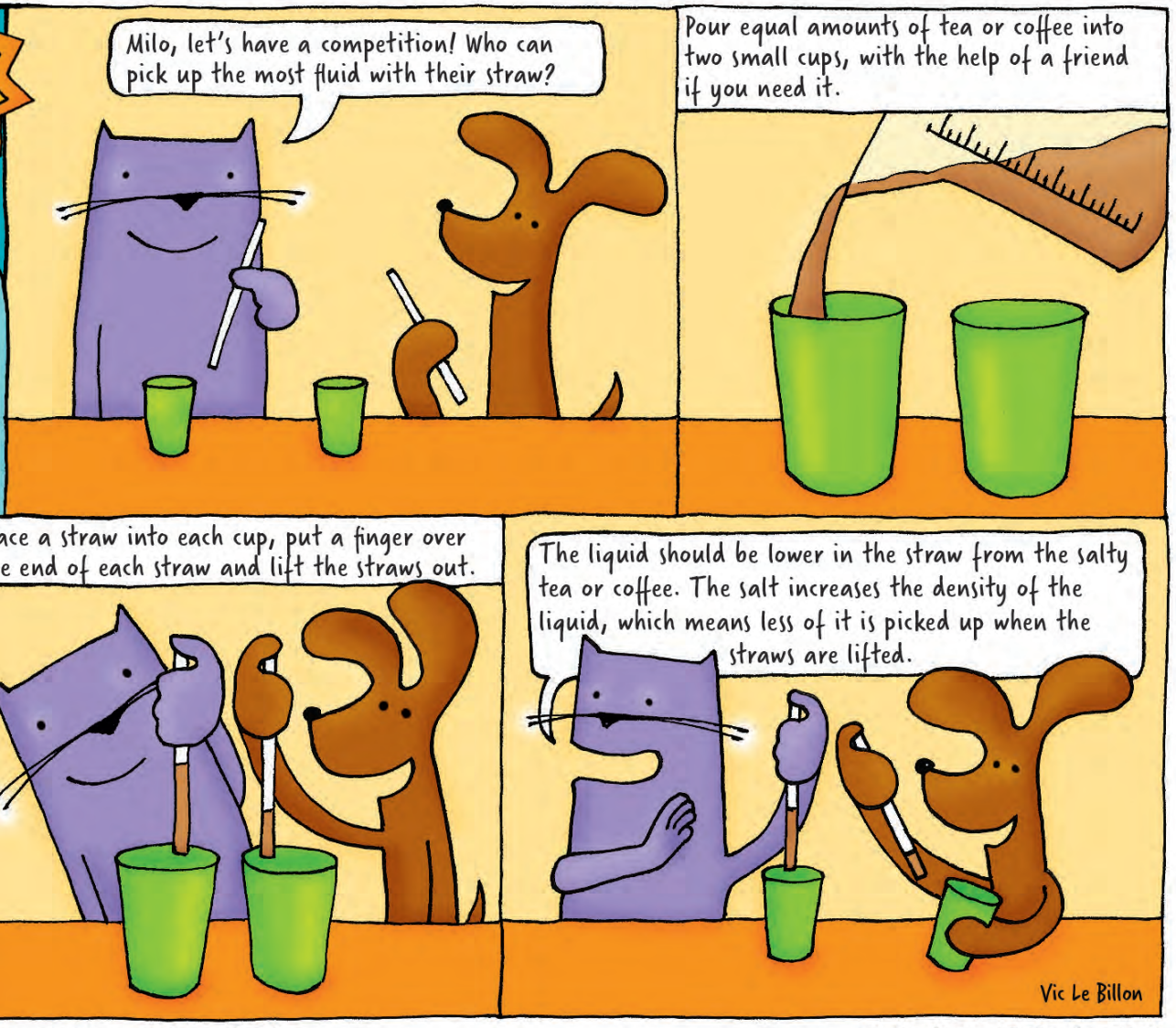
Featuring: Marvin and Milo

What you need: • Two small cups • Tea or coffee • Two straws • Salt • A friend



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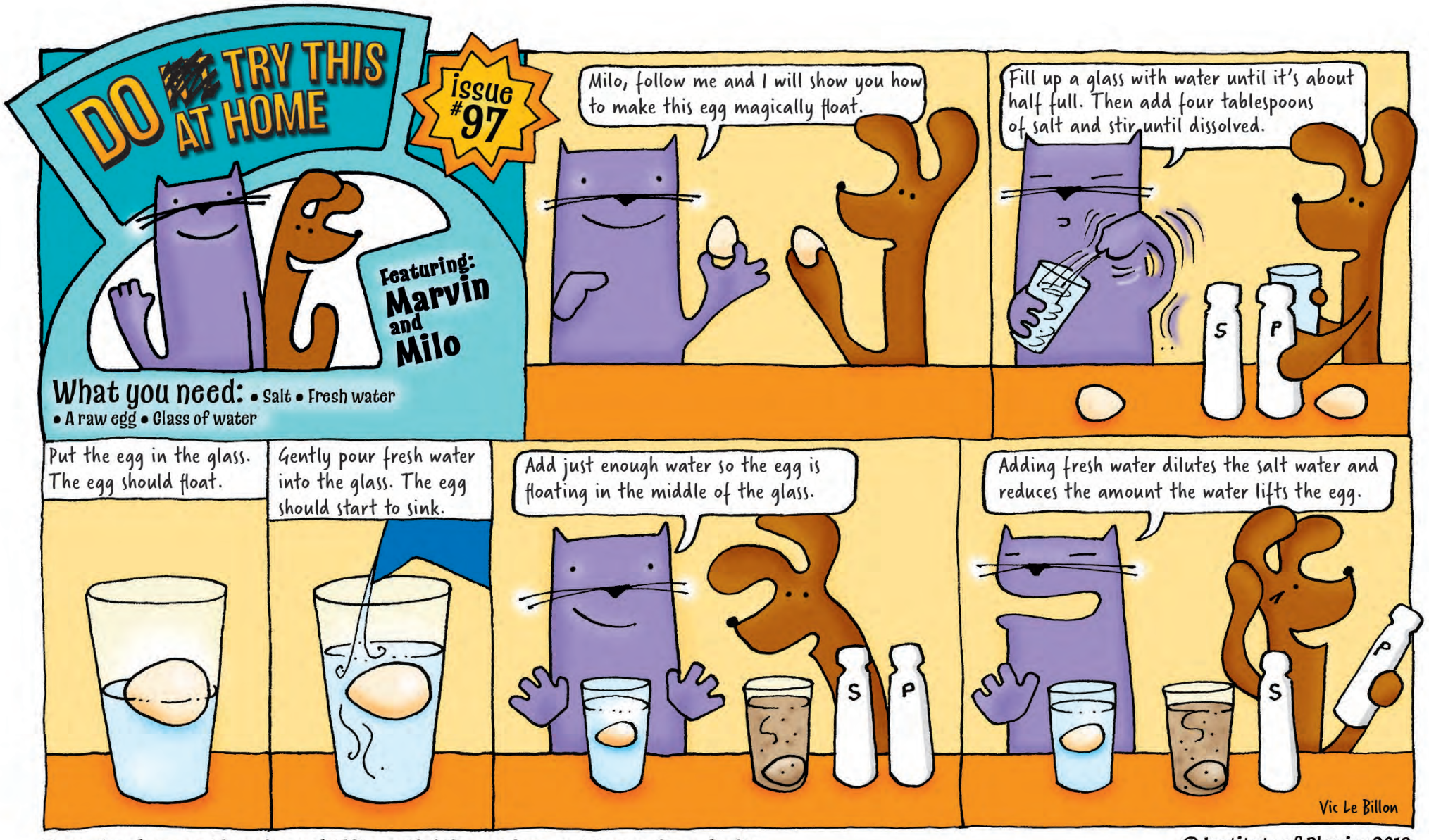

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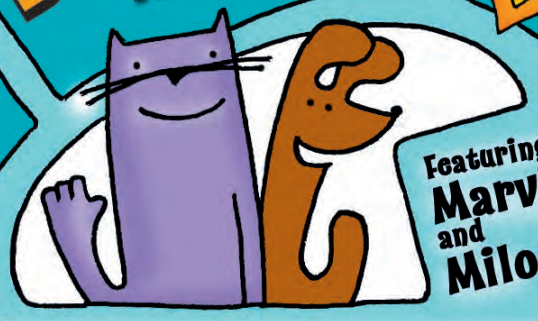
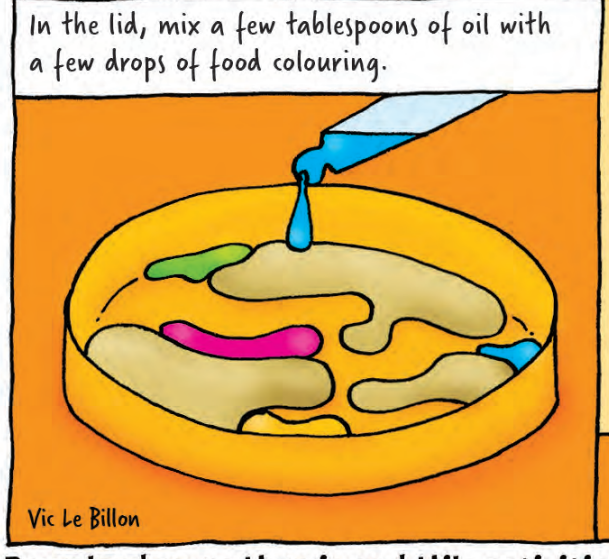


Featuring: Marvin and Milo

What you need: • Empty glass jar • Oil • Water • Food colourings in different colours



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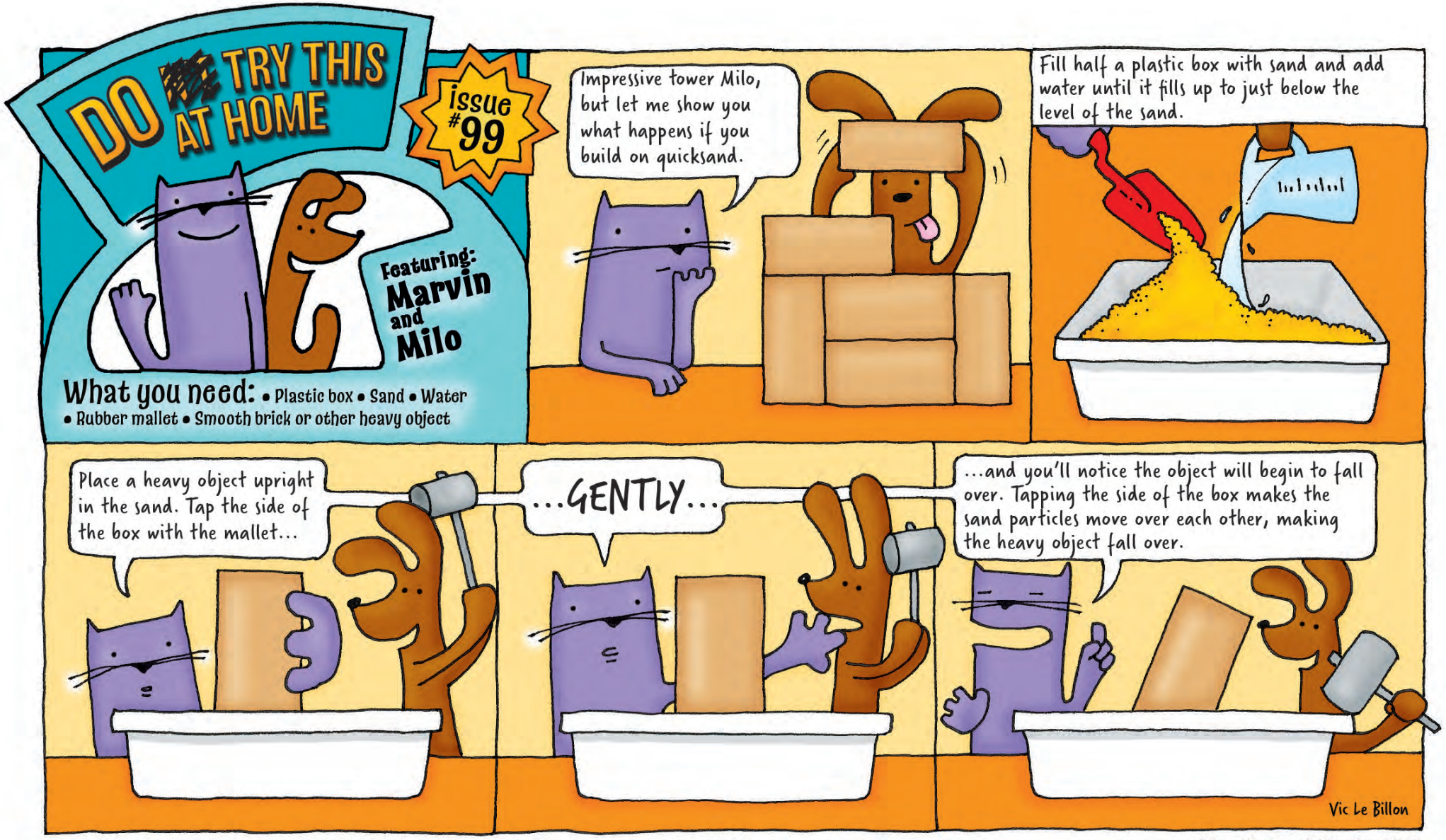

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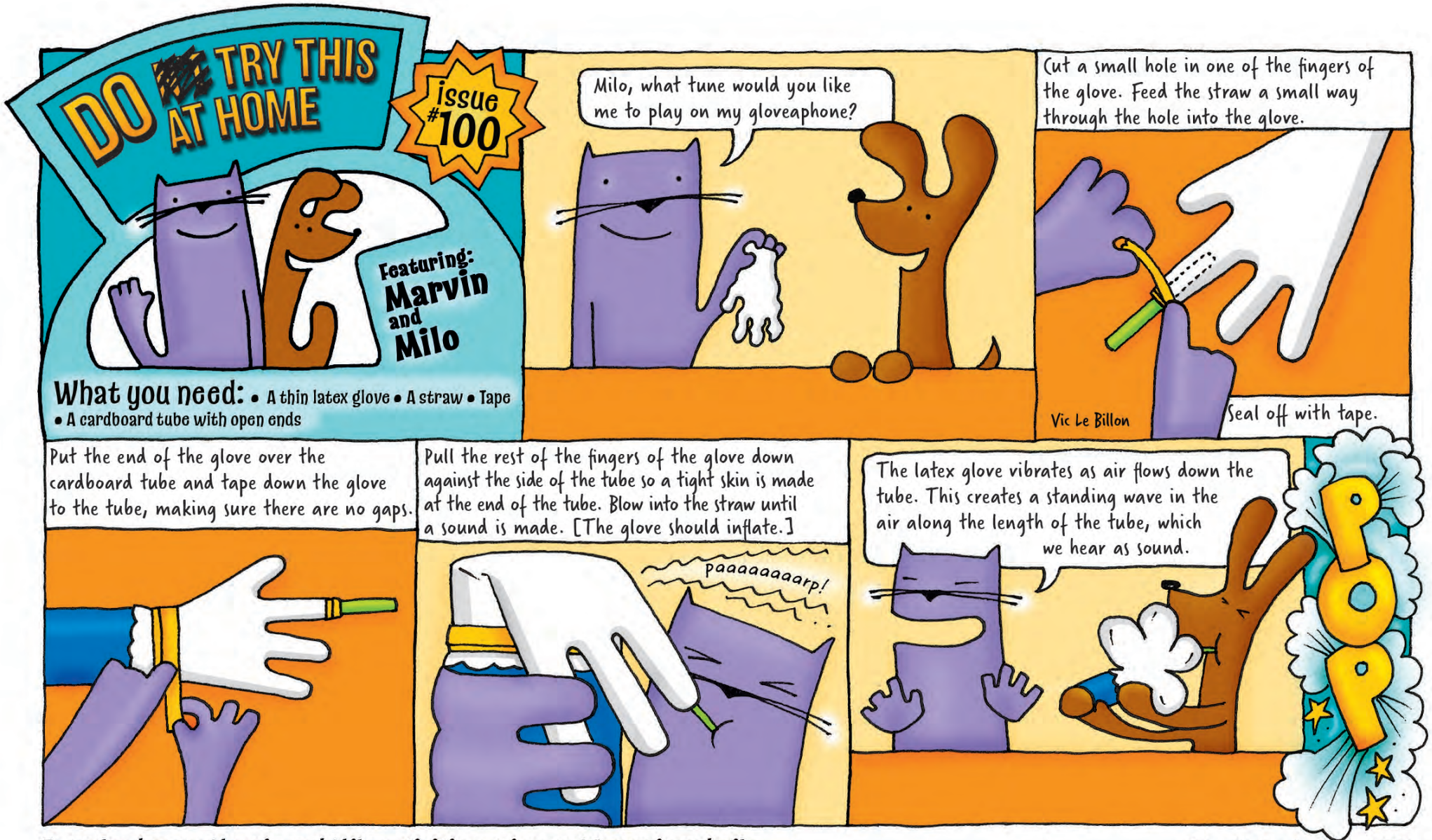

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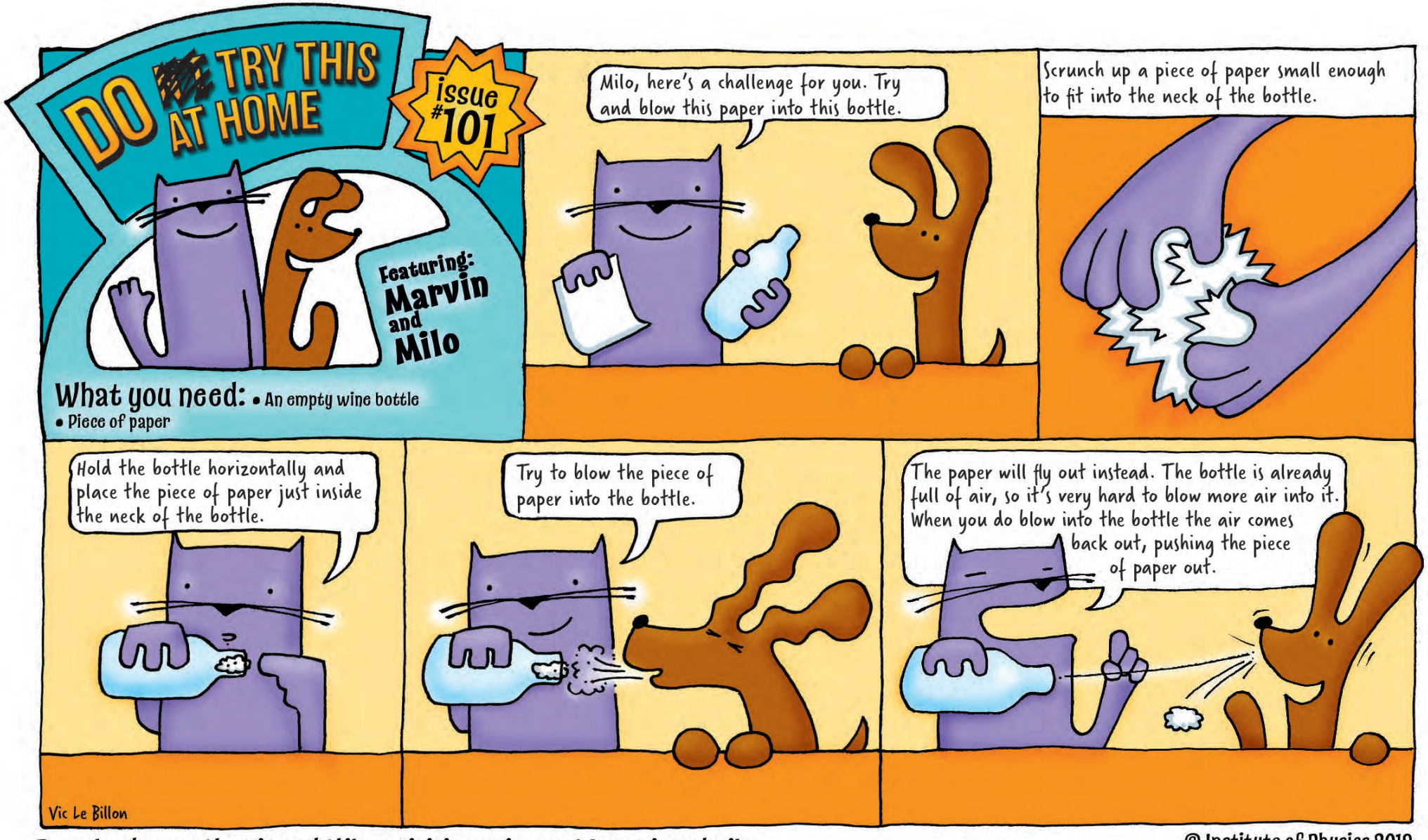

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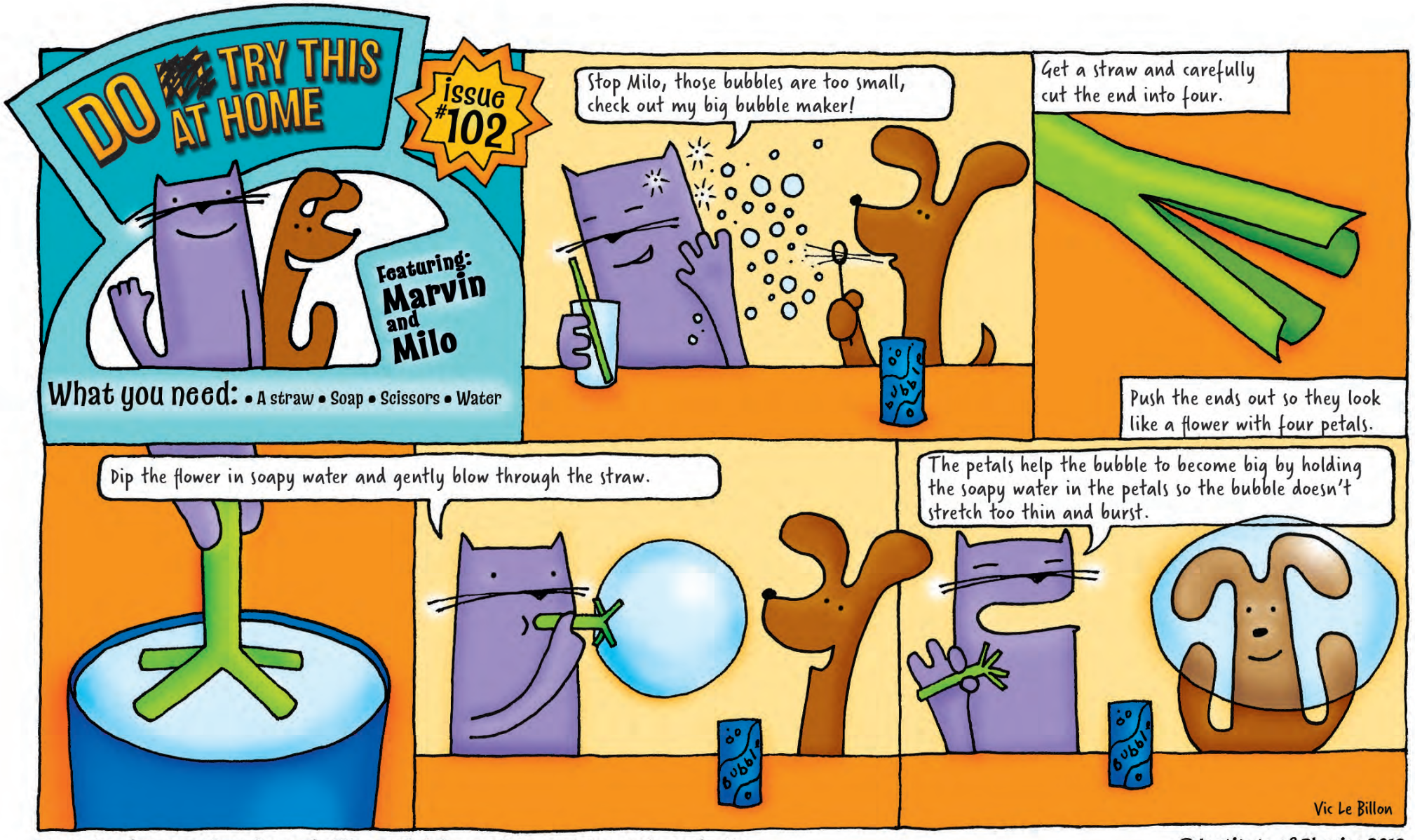

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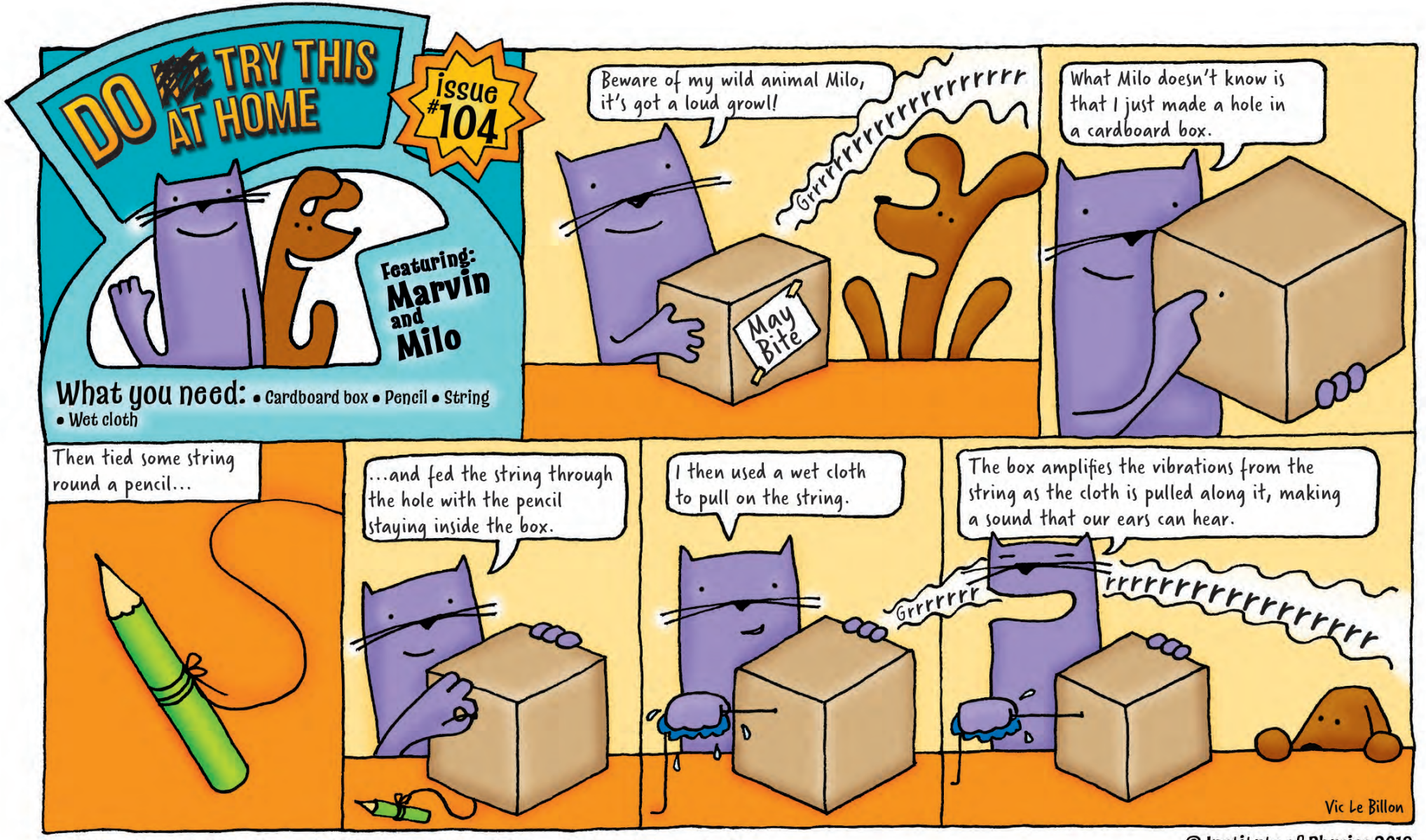

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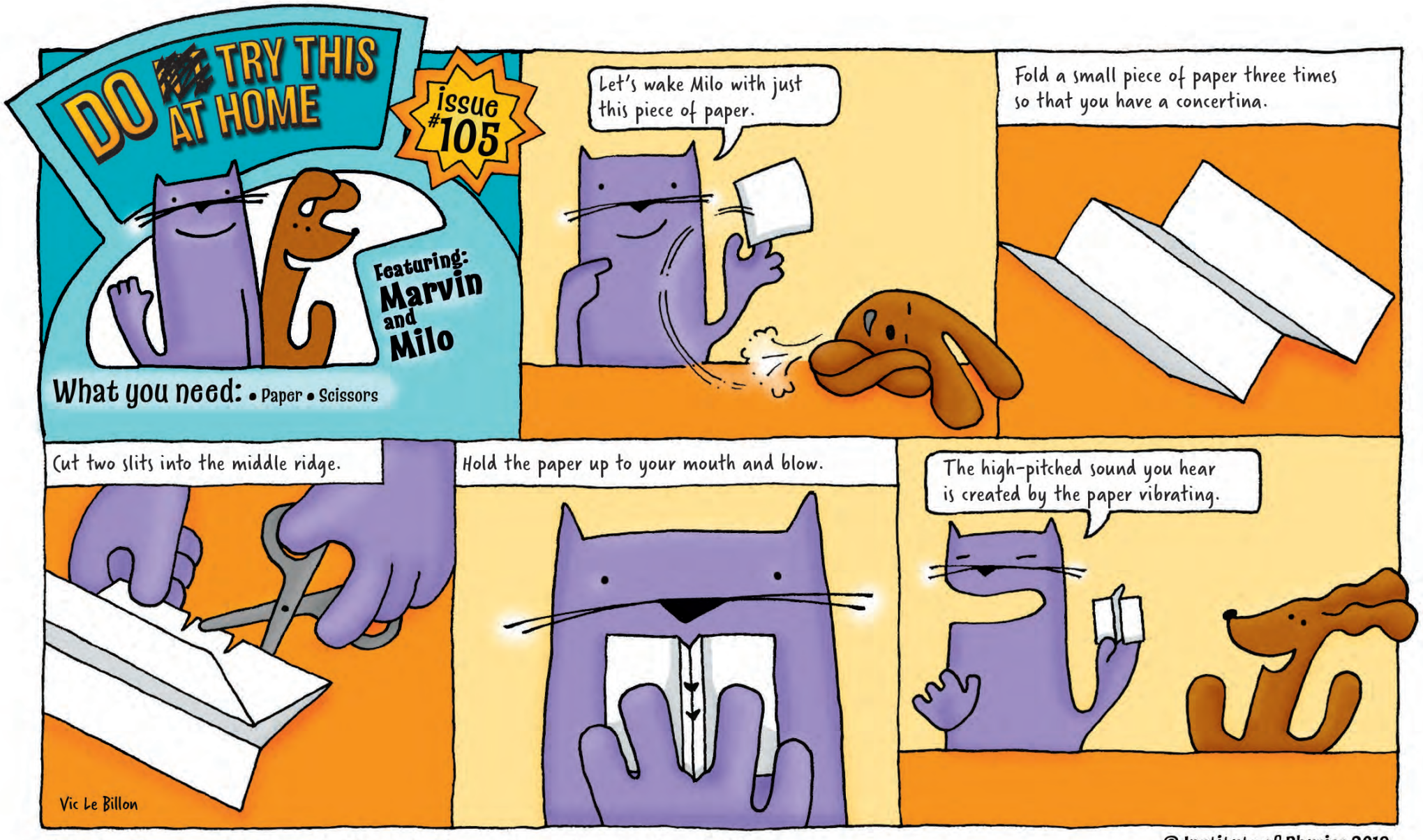

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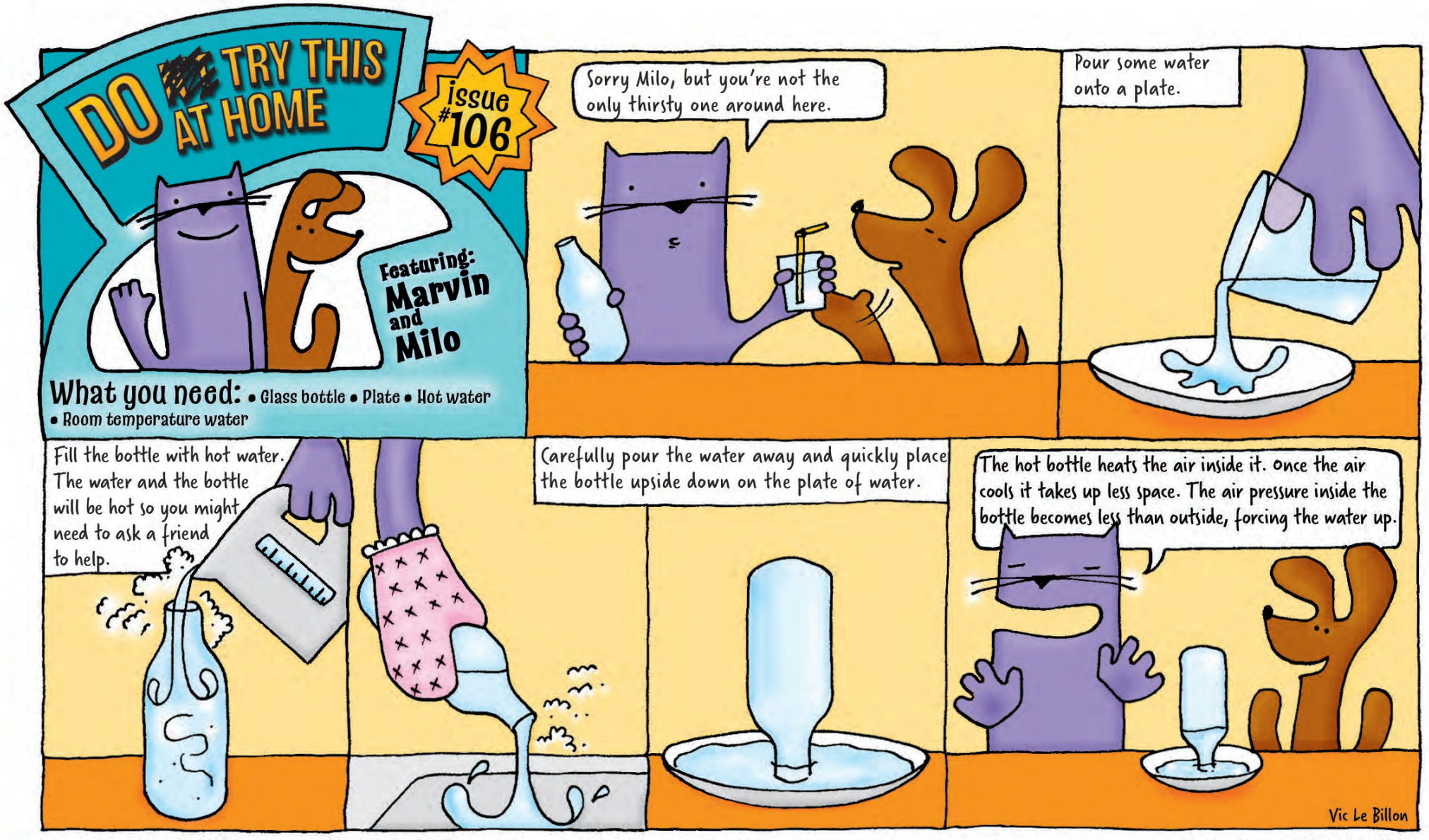

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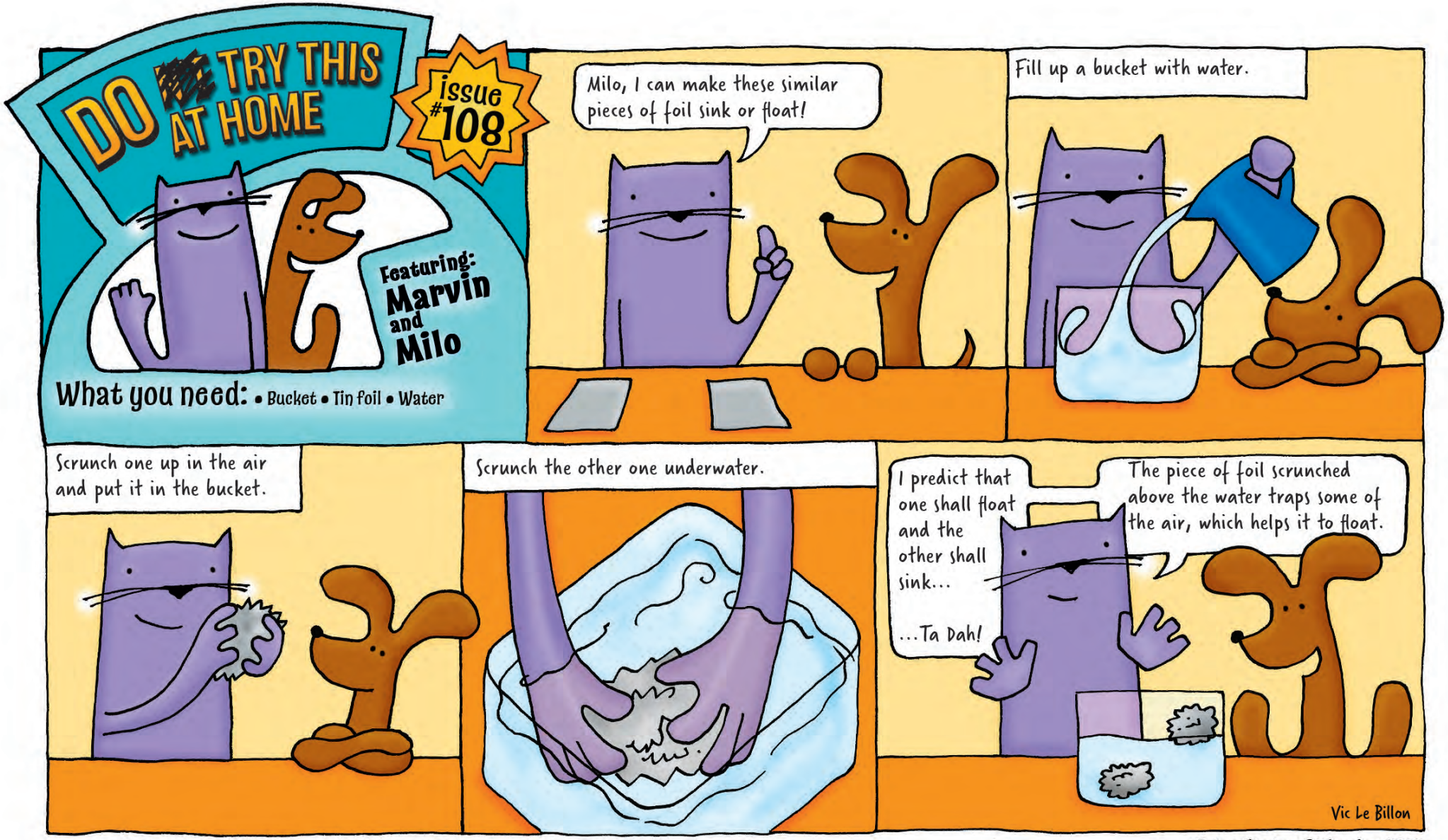

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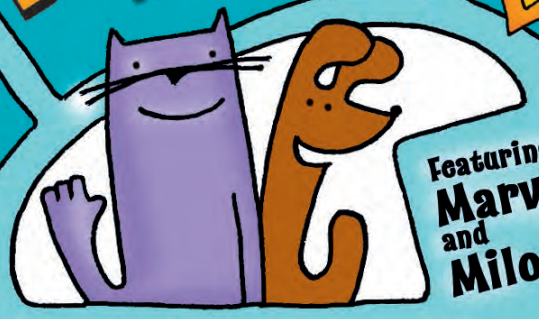
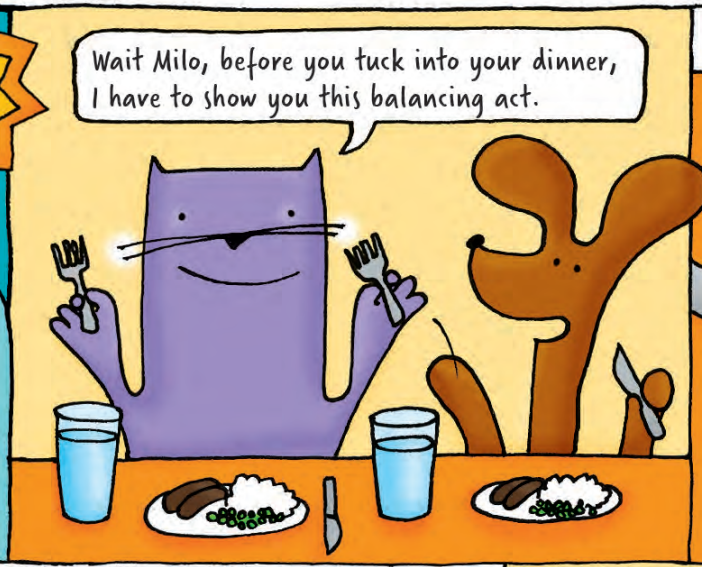
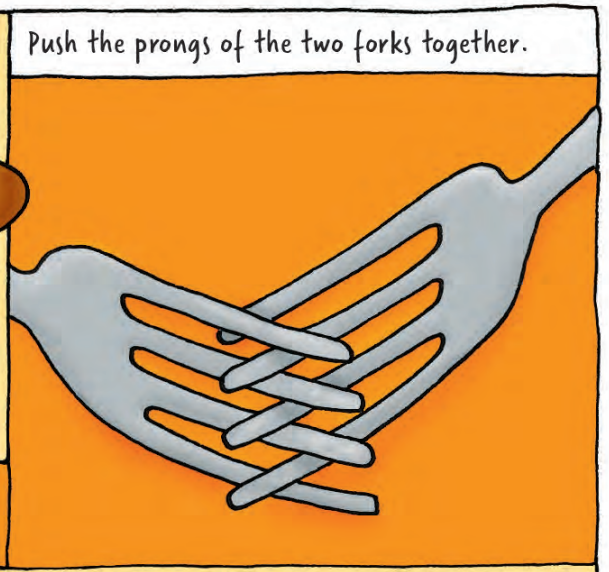
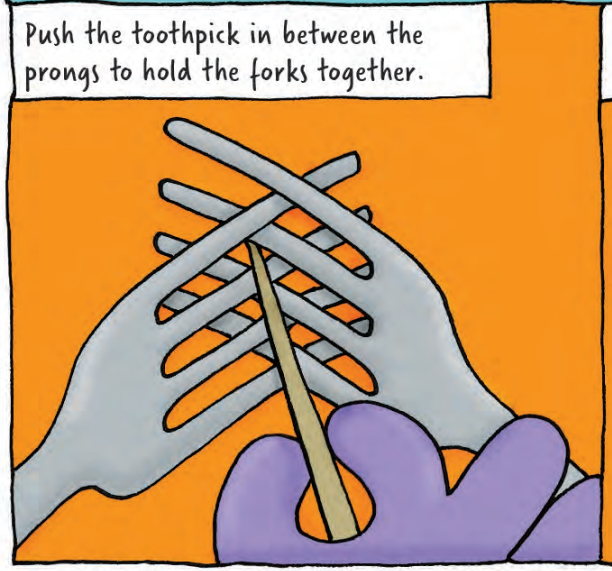


Featuring: Marvin and Milo

What you need: • Tall glass • Toothpick • Two identical forks







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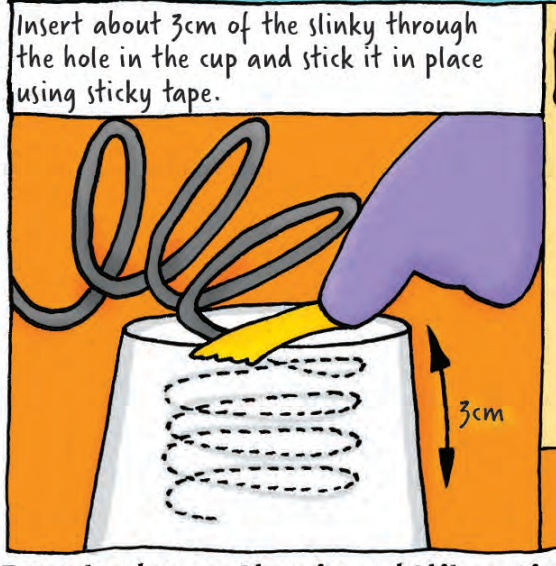
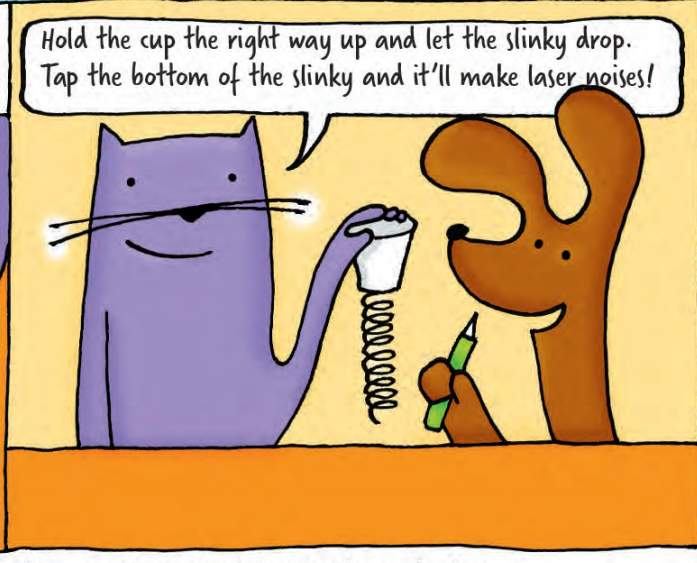
issue #110

Featuring: Marvin and Milo

What you need: • Metal slinky • Disposable cup • Sticky tape • Scissors

Carefully use the scissors to make a small hole in it. Ask a friend to help.





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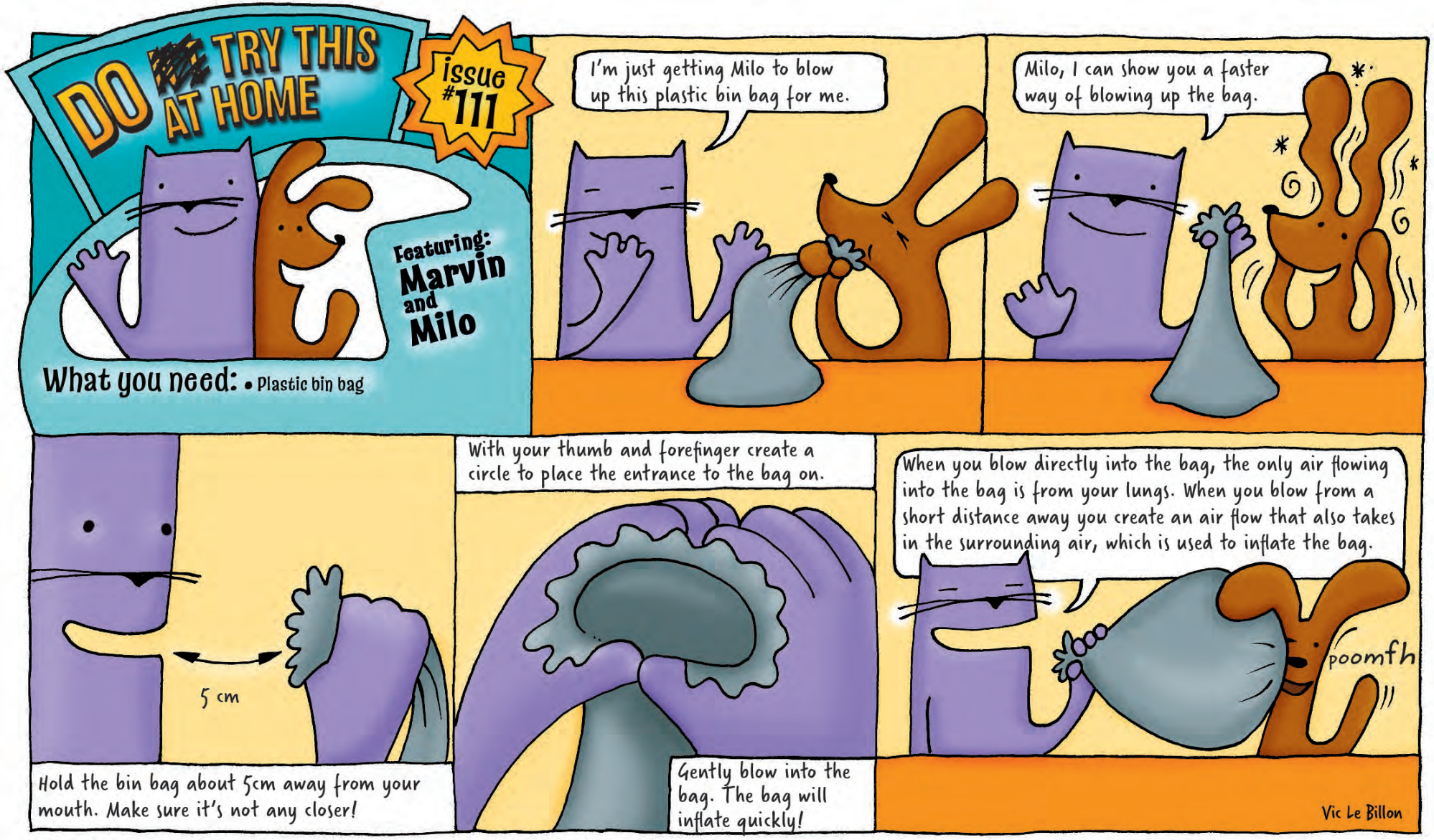

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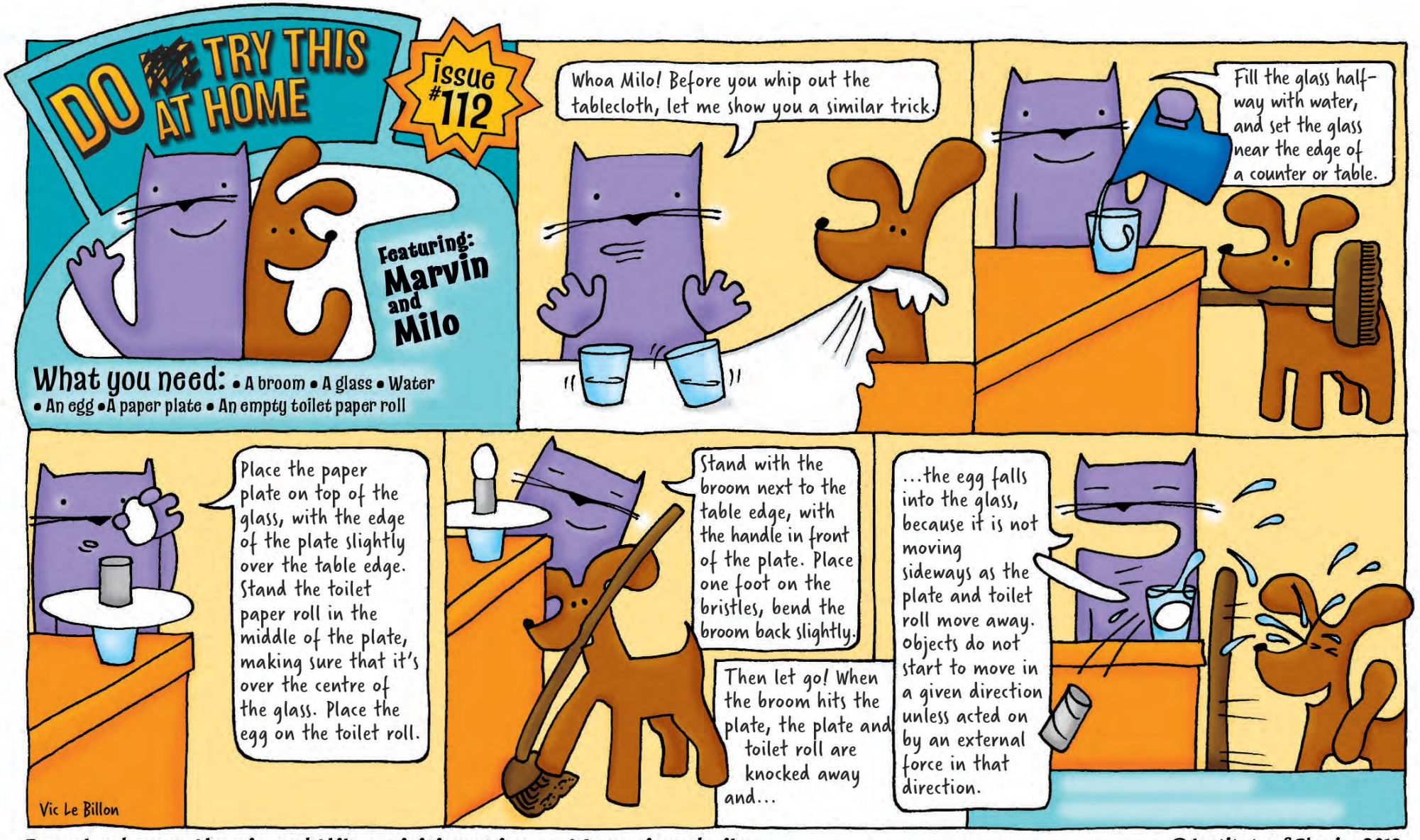

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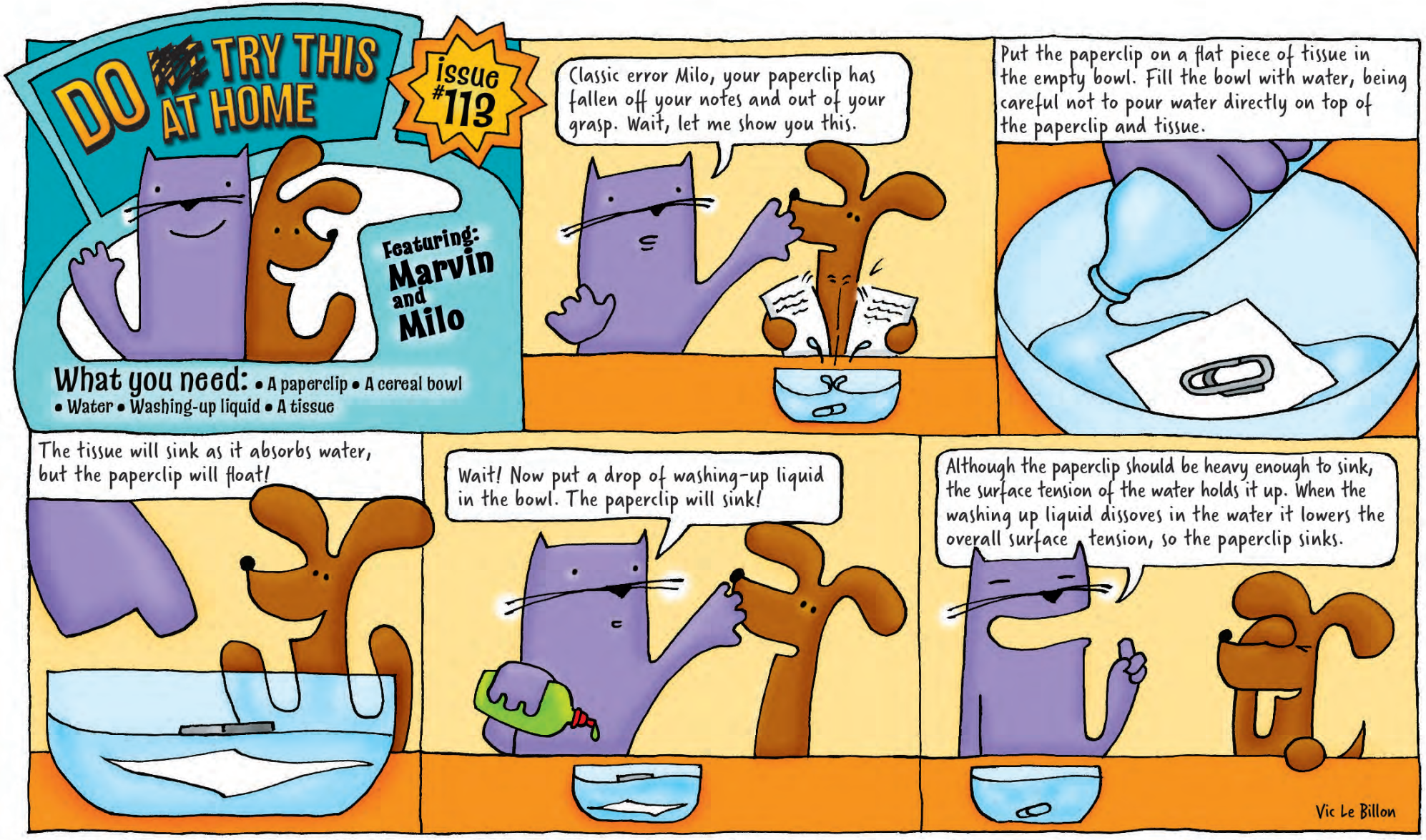

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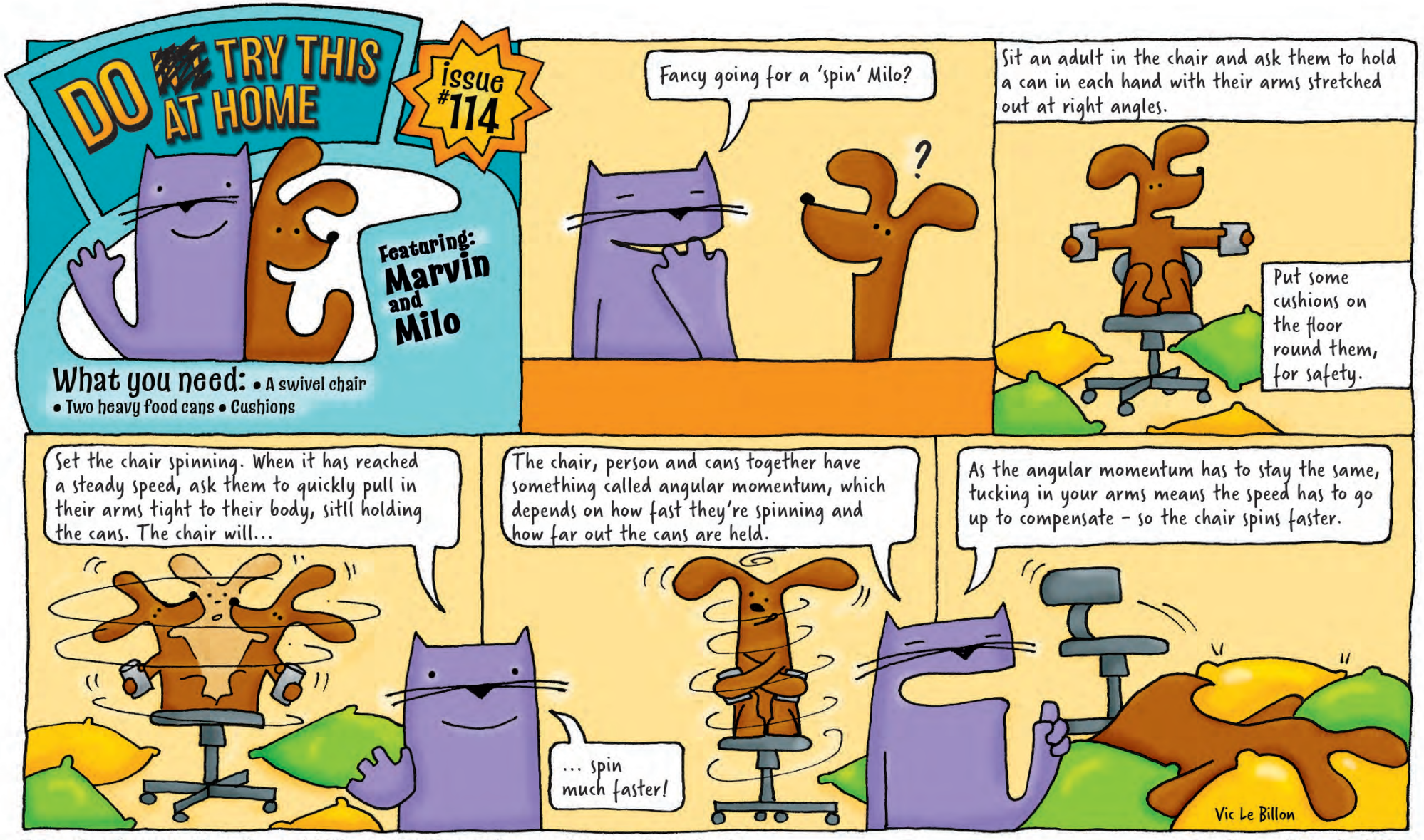

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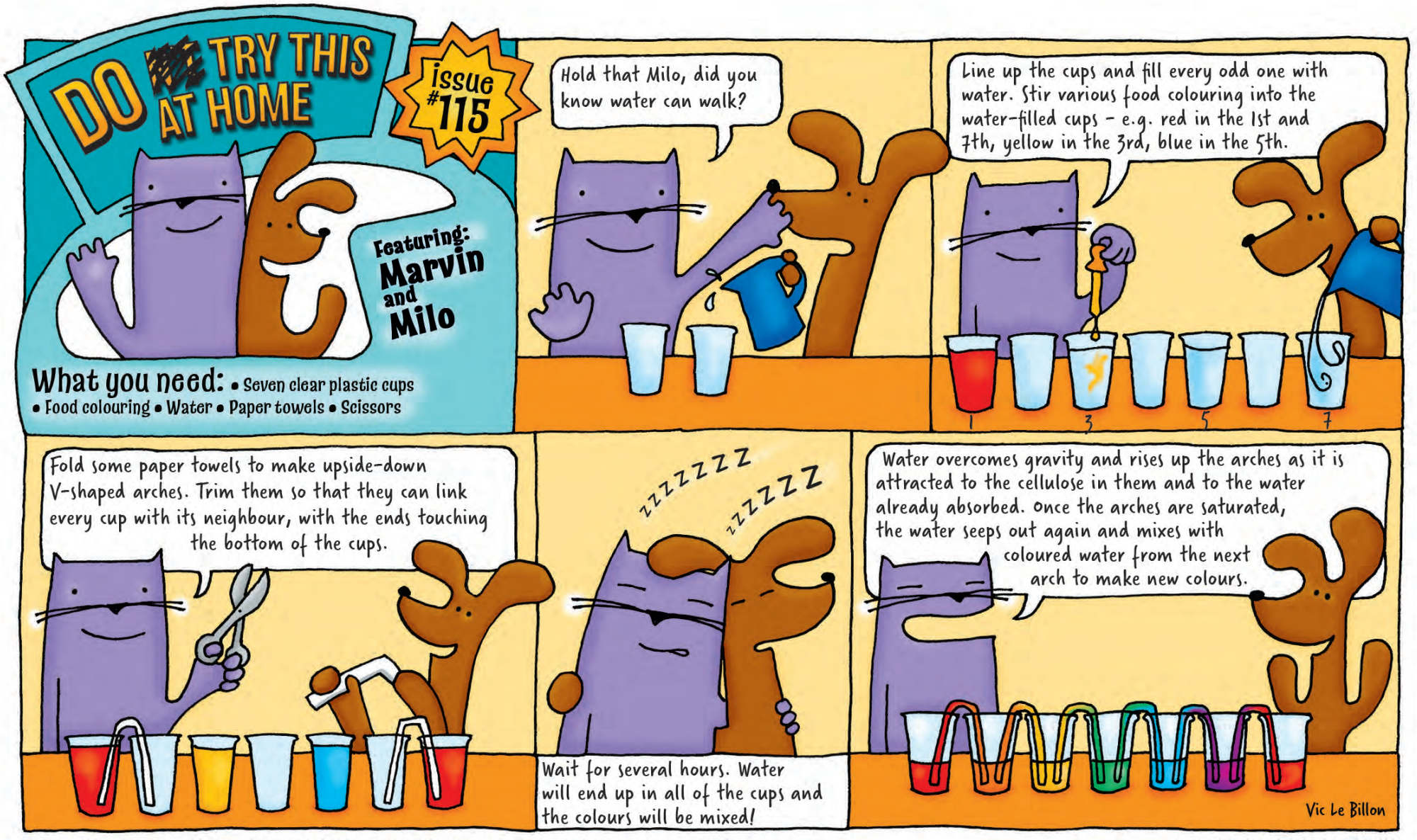

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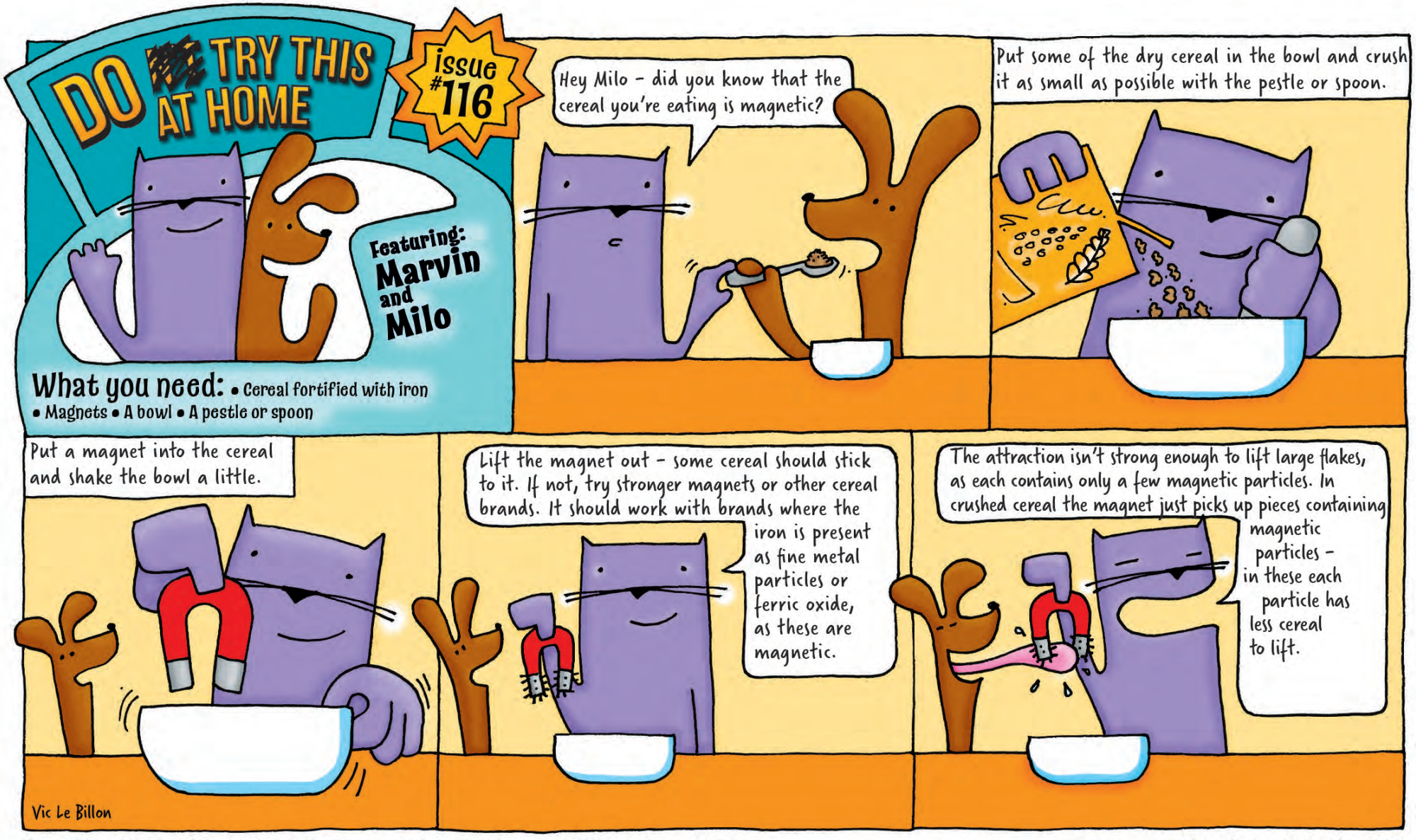

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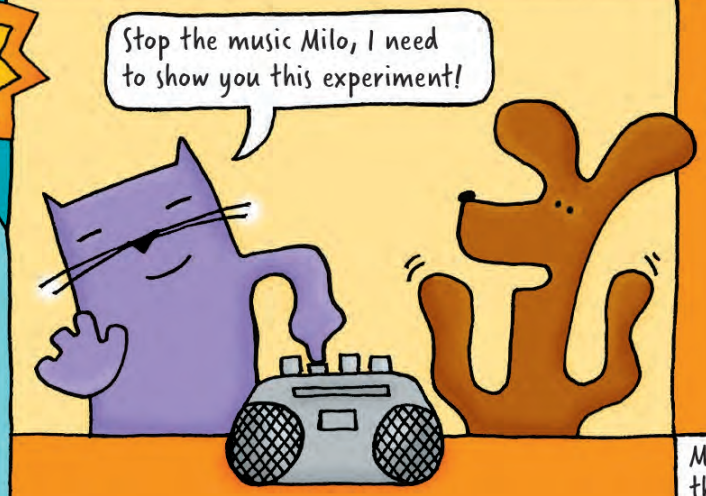
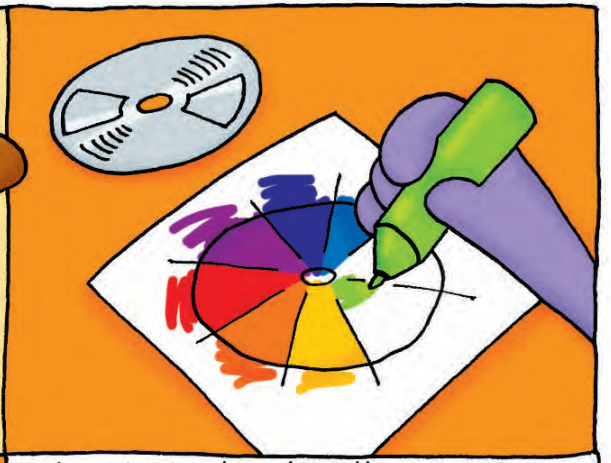
DO TRY THIS AT HOME

issue #117

Featuring: Marvin and Milo

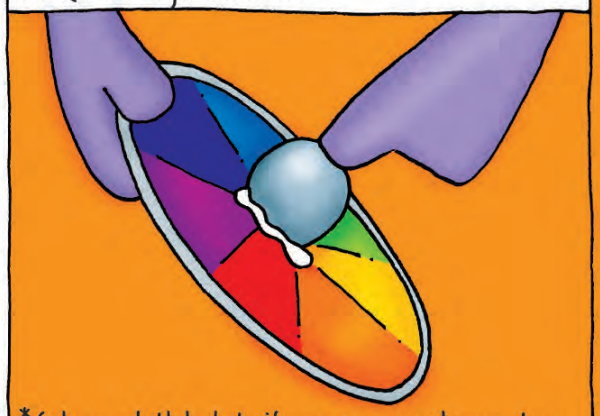
What you need: • Paper • Scissors • Strong glue • Coloured pens • An old CD • A marble





Make a circular shape from the paper using the CD to draw round. Colour it in with the rainbow colours in equal segments.

Make a hole at the centre of the shape, glue it to the CD and stick the marble to the CD through the hole*



*Get an adult to help if you use very strong glue.

Spin the whole thing fast – the colours should turn to white!

Light of certain wavelengths excites different types of cell in your eyes so you see these inputs as colours. As the CD spins, light reflected from different parts hits your eyes too fast for your brain to tell these apart so you see white light.

Vic Le Billon

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DO TRY THIS AT HOME

issue #118

Featuring: Marvin and Milo

What you need: • Ice cubes • Tap water • Scales • A microwave oven • Identical microwave-safe cups

Brrrrrh! It's autumn Milo – not a time for cocktails, more like hot tea. I bet I can boil water faster then you can melt ice!

Put a few ice cubes into a dry cup and weigh it.

Pour water into another cup intil it weighs the same as the first one.*

* It is dangerous to heat distilled water in a microwave, so use tap water.

Stand the cups on opposite sides of the oven's turntable and microwave them.*

The water should boil before the ice melts!

Inside the microwave there's a quickly-changing electric field. Water molecules are slightly charged at both ends, and want to align them-selves with this electric field. Because the field keeps changing, the molecules in liquid water are spun back and forth, raising the temp-erature of liquid quickly. The water molecules in ice are fixed in a crystal structure, and so cant rotate and so the temperature doesn't increase as much.

Vic Le Billon

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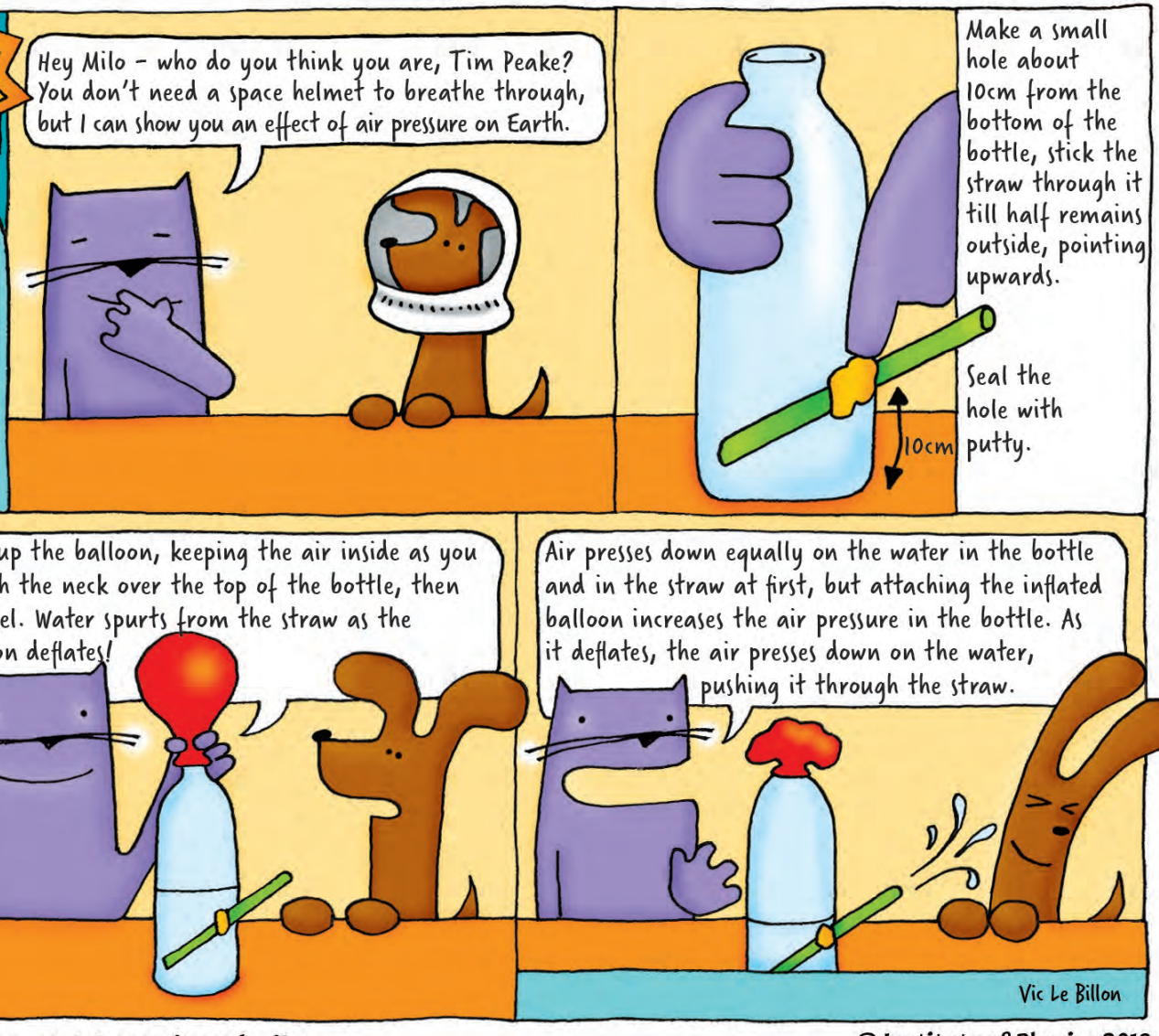
issue #119

Featuring: Marvin and Milo

What you need: • A plastic bottle • Scissors • A straw • Putty • Food colouring • A balloon



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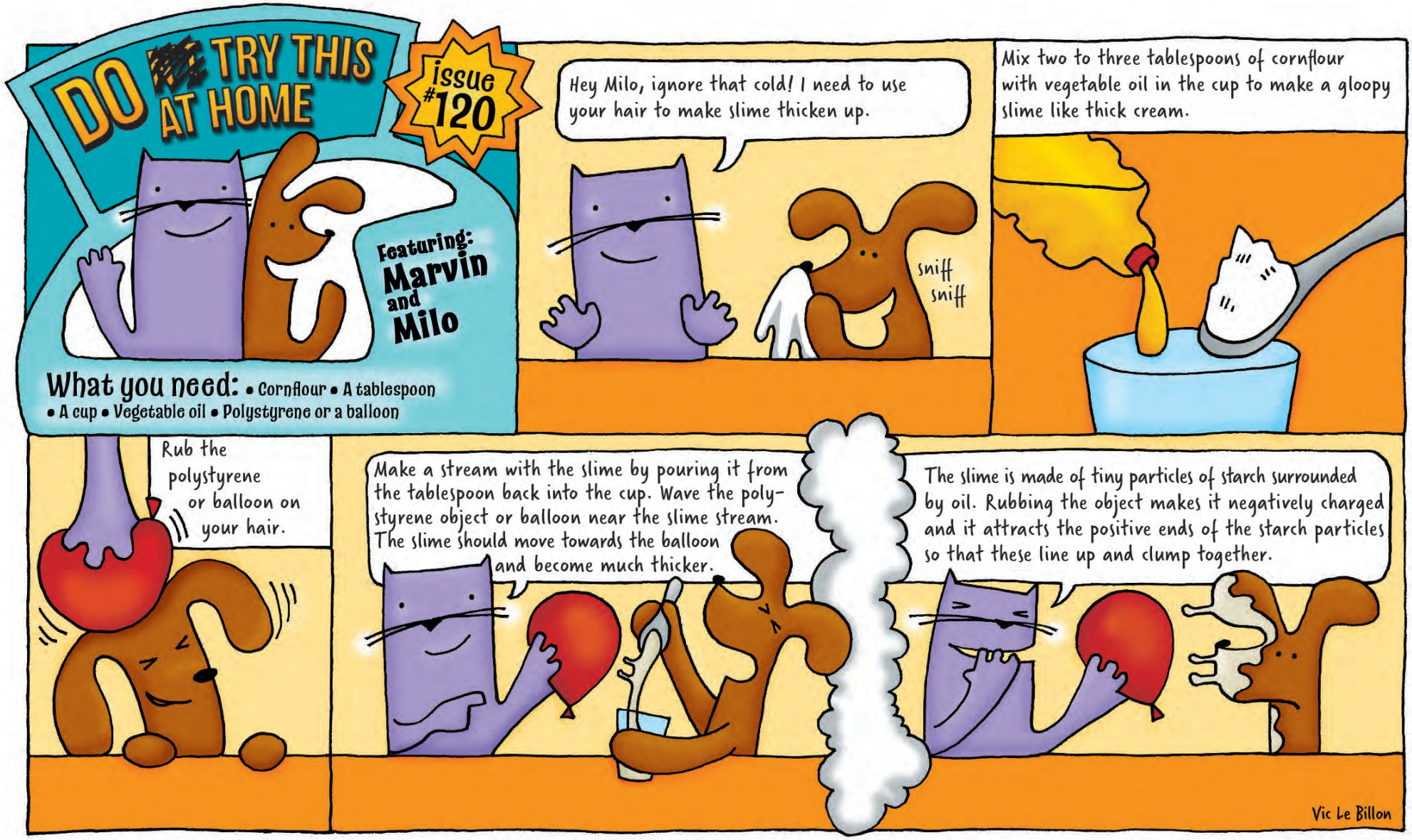

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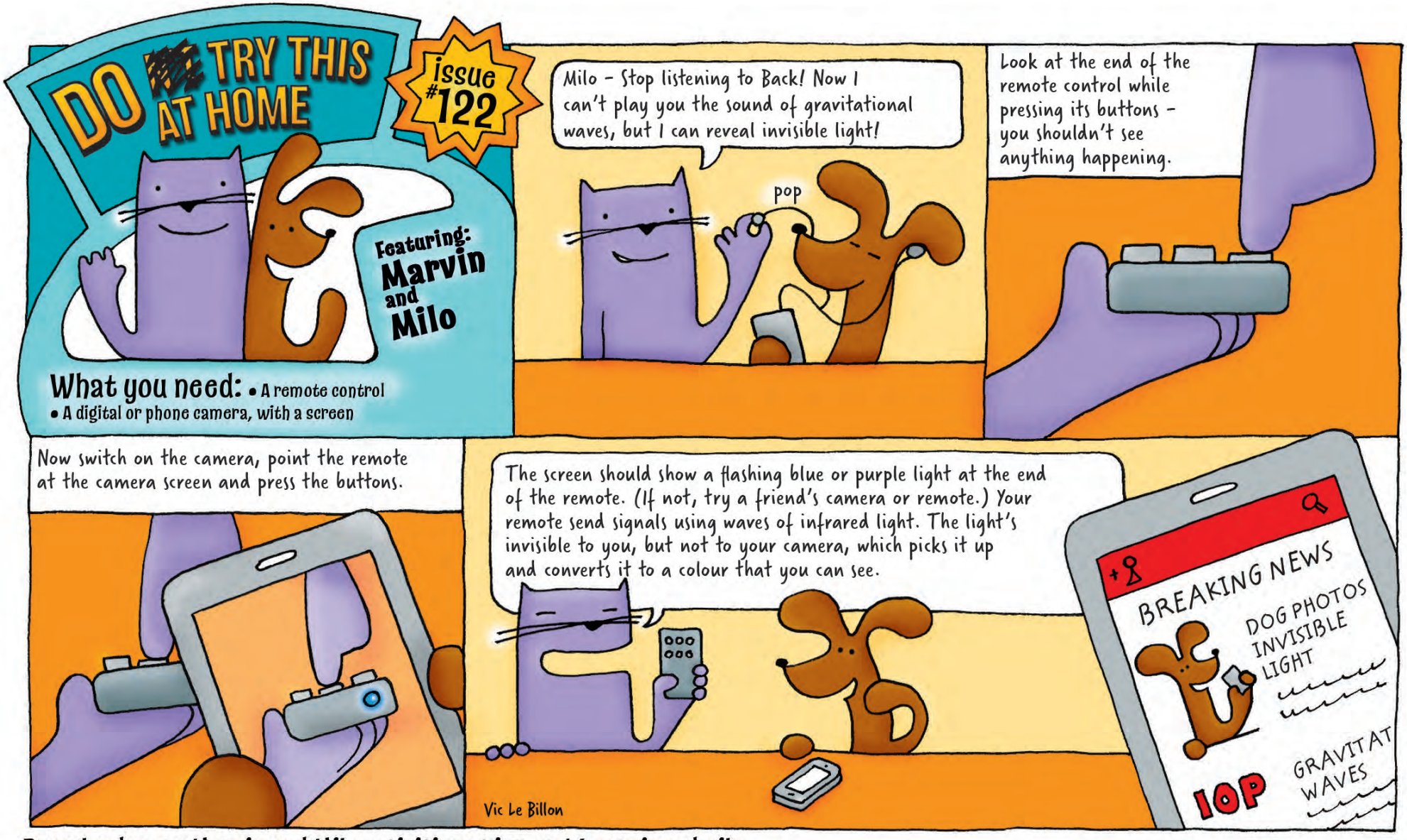

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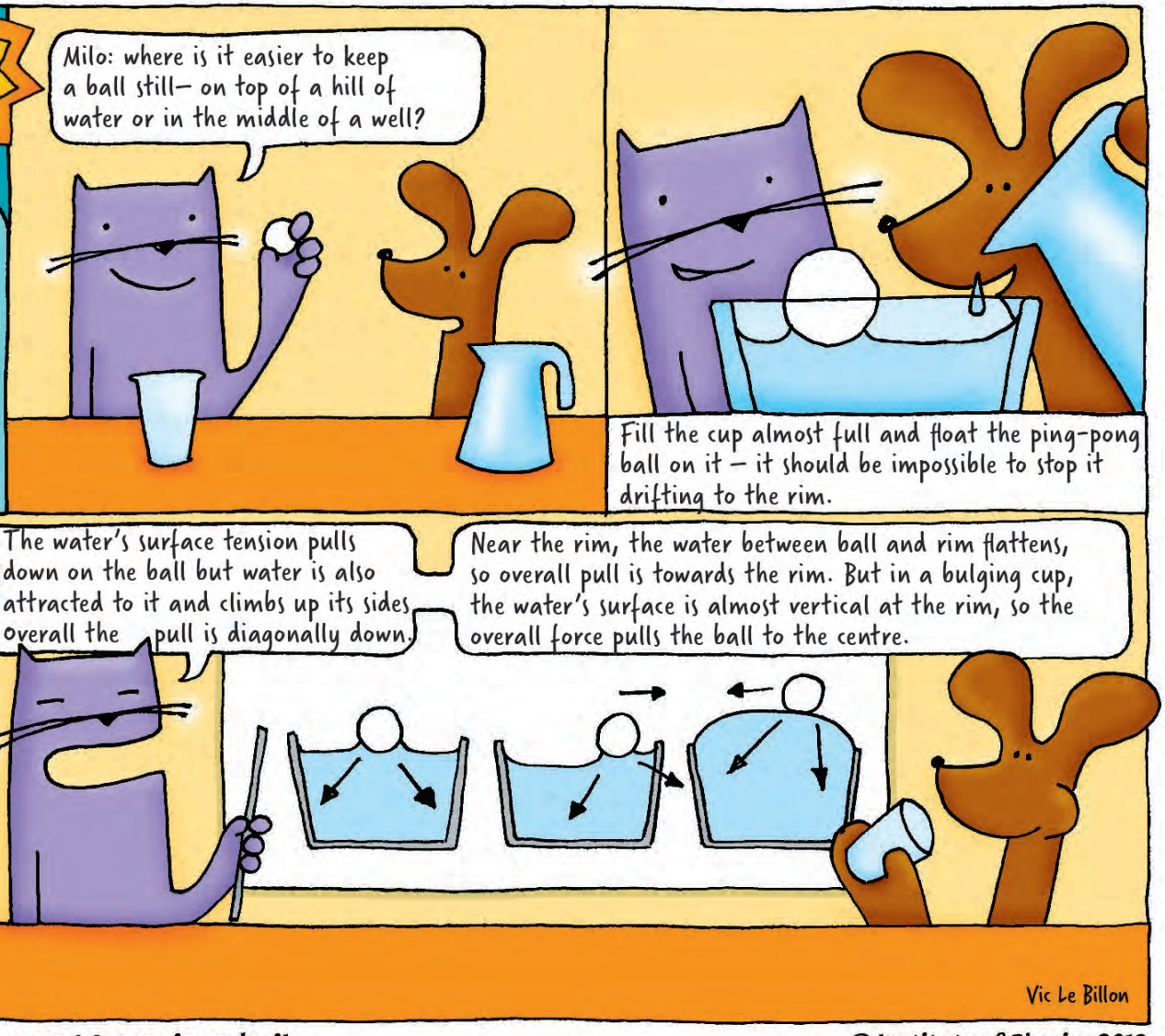
issue #123

Featuring: Marvin and Milo

What you need: • A ping-pong ball • A plastic cup • Water



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issue #124

Featuring: Marvin and Milo

What you need: • A vacuum cleaner • Sticky tape • A large, strong, clear plastic bag • Bathroom scales • A board about the scales' size

Stop the housework Milo! If you think that vacuum cleaner is heavy, let me show you how weighty the atmosphere is.

Place the board under the scales, put them together into the bag and wrap the plastic round them, fastening with sticky tape.

Stand the bag flat on the floor, put the vacuum pipe into the bag and hold the plastic tight round it.

Switch the machine on.

Once the air has been sucked from the bag, the scales should read bout 150kg or more*; with a perfect set-up they'd record about a tonne!

(*You may need to try different scales or reset them for this to work.)

Normally, the air above and below empty scales pushes equally in all directions, so the forces cancel out and they read zero. With a nearly airless bag, the weight of the atmosphere pushes down on the scales but little force pushes up.

Vic Le Billon

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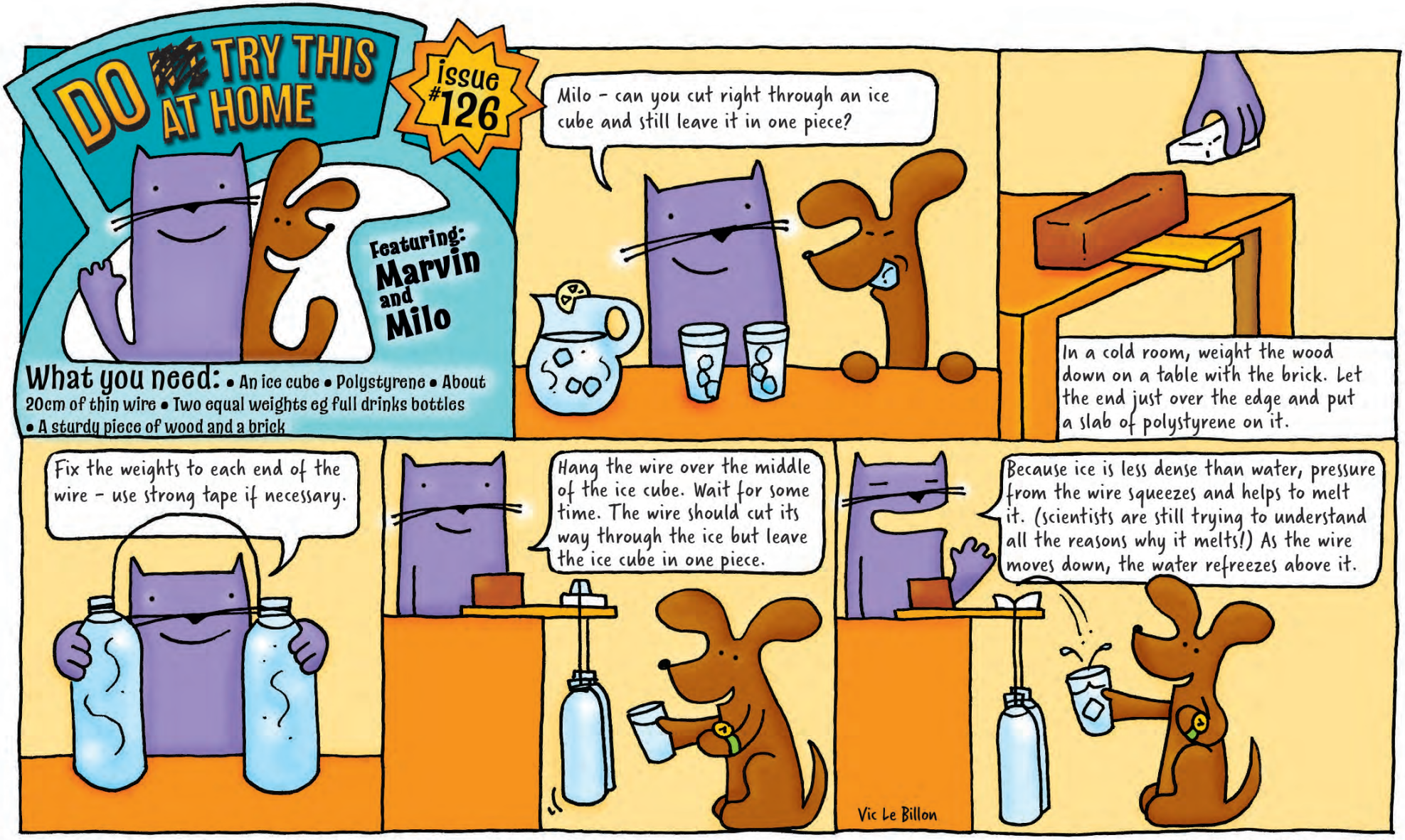

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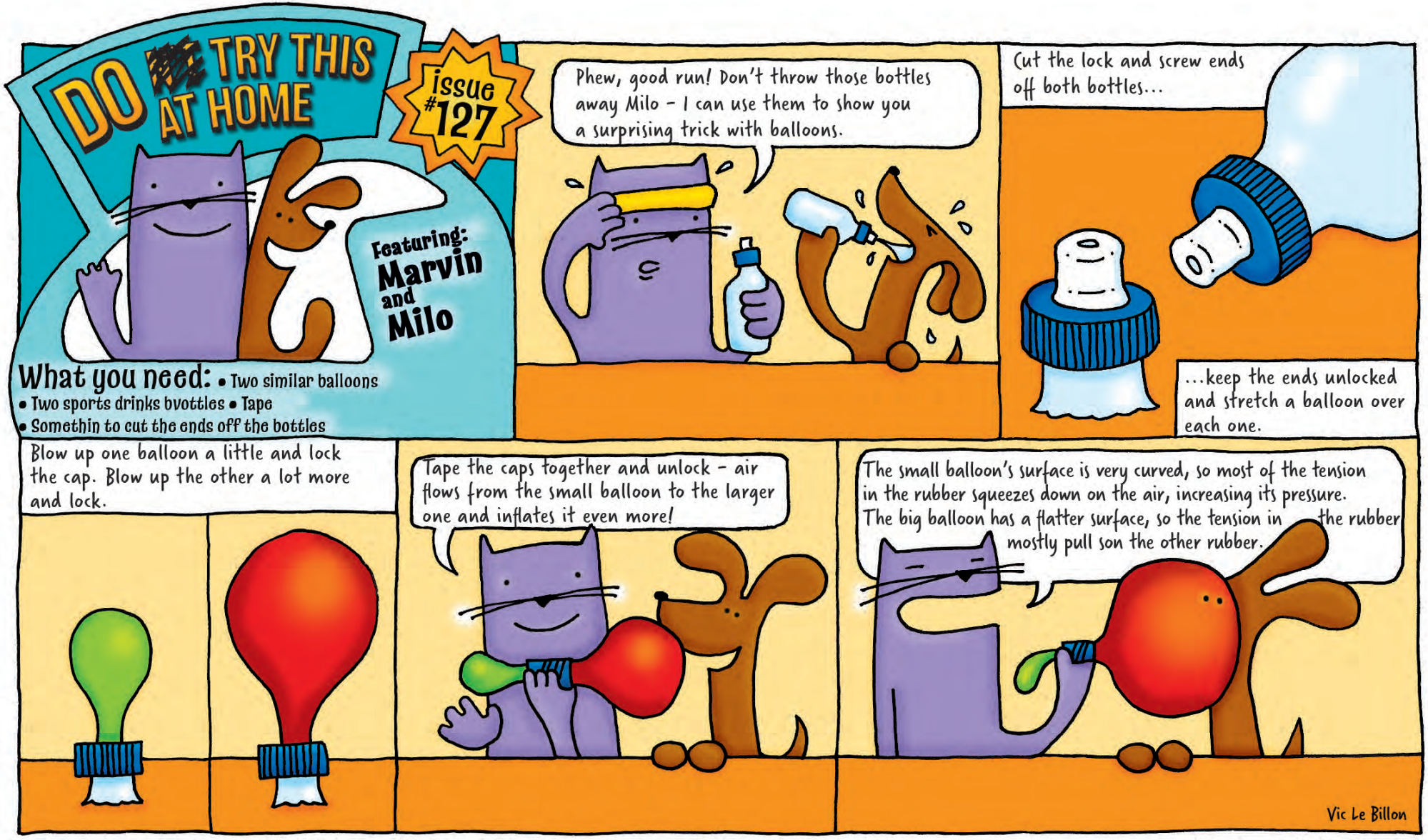

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issue #128

Featuring: Marvin and Milo

What you need: • Two "polarisers" - pieces of polarising plastic (or two old sunglass lenses) • A bright lamp • Transparent sticky tape • Piece of clear plastic

Milo, sorry but I need your sunglasses. I want to use them for a trick with light.

POP

View the lamp through two polarisers at once. Rotate one of them until you can block the light.

Now stick strips of tape on the clear plastic, criss-crossing them. Sandwich the plastic between the two polarisers.

Look at the lamp through the "sandwich". Rotate the polariser closest to you - you should see a kaleidoscope of coloured patterns.

Light travels in one direction but vibrates at right-angles to this - sideways and up and down. Polariser let only the horizontal or vertical part through, so you can combine them to block light. In the "sandwich" the stretched tape slows down and rotates the polarised light, shifting the different wavelengths (ie colours) of light by different angles. As these hit the second polariser, different wavelengths get through as you rotate it, making coloured patterns.

Vic Le Billon

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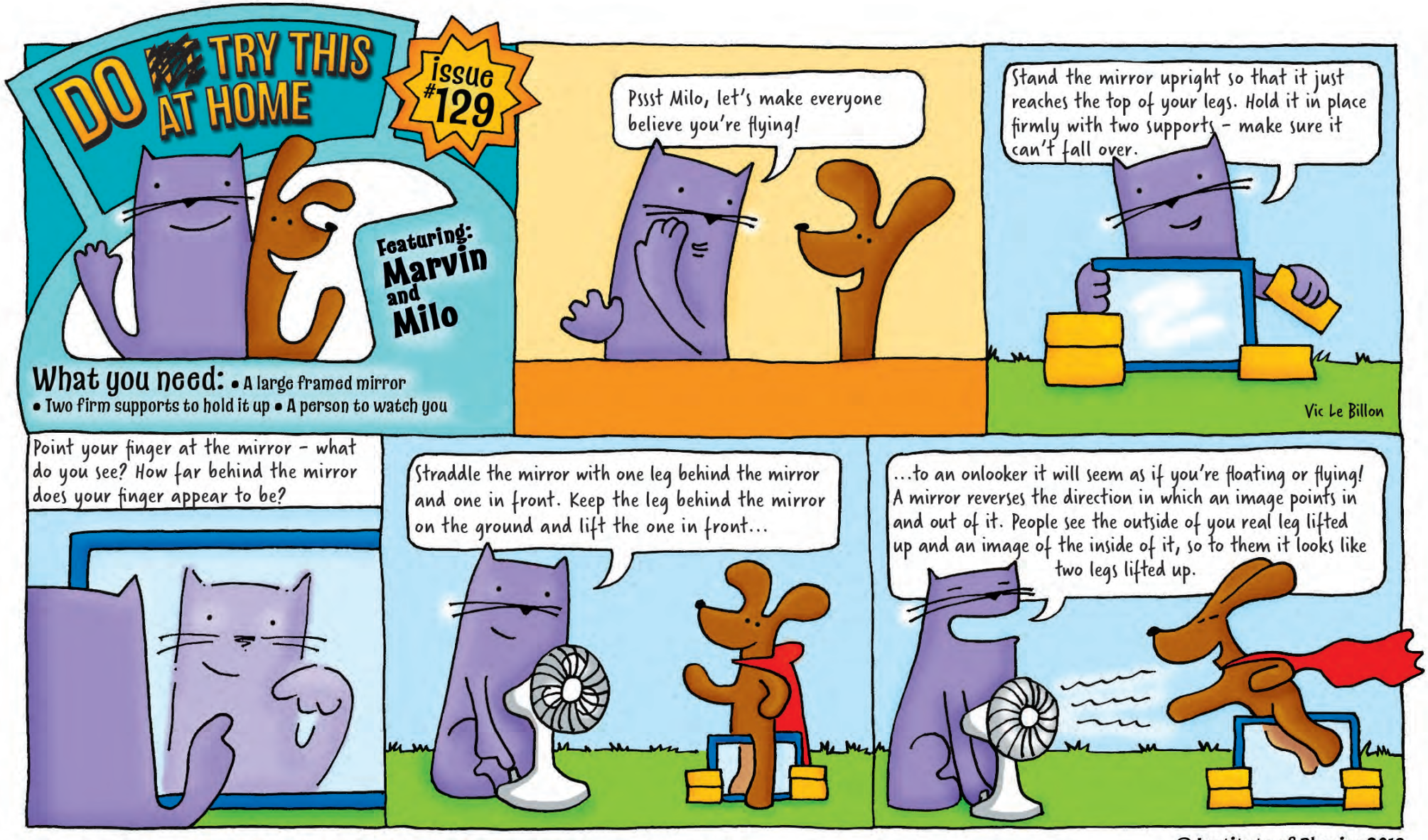

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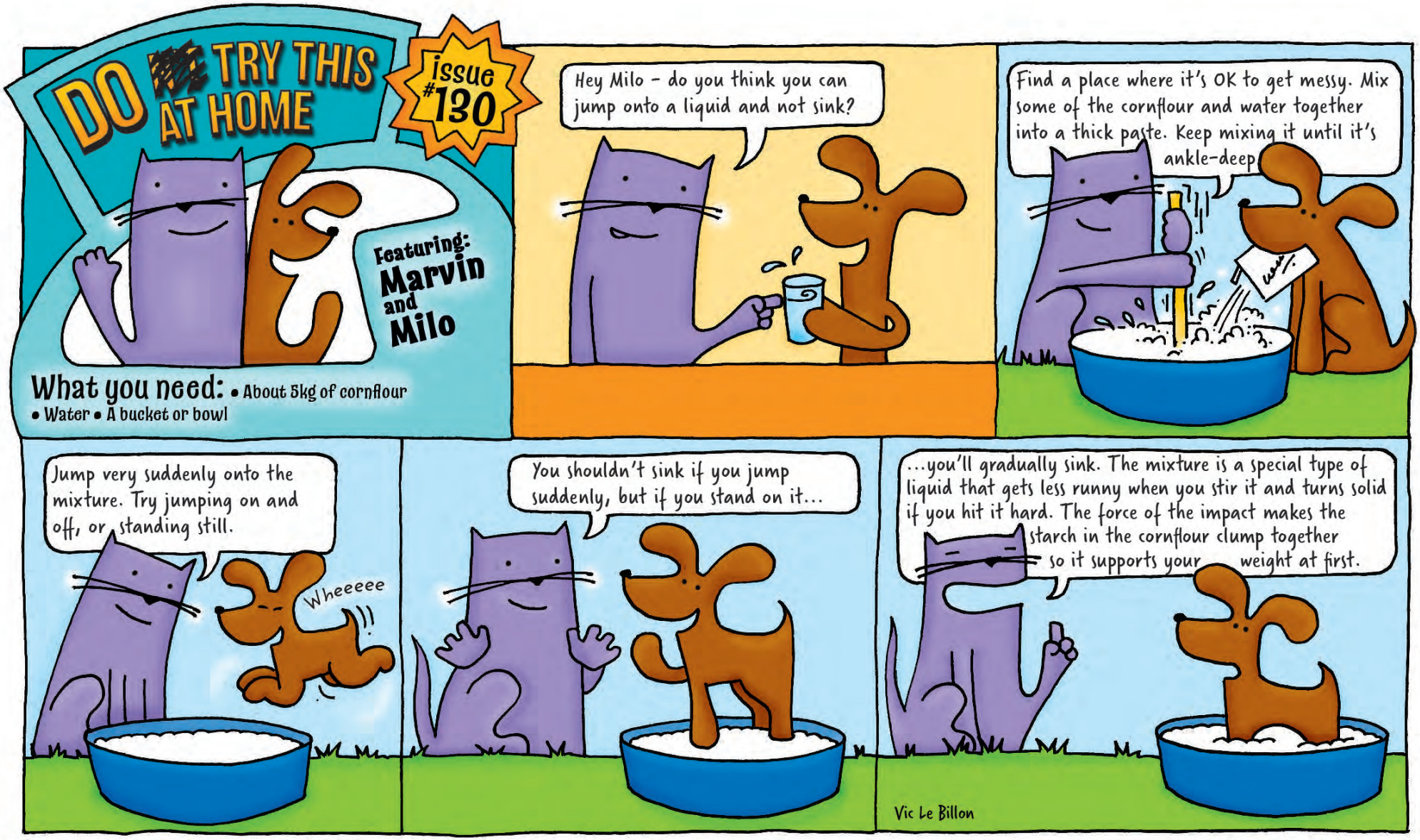

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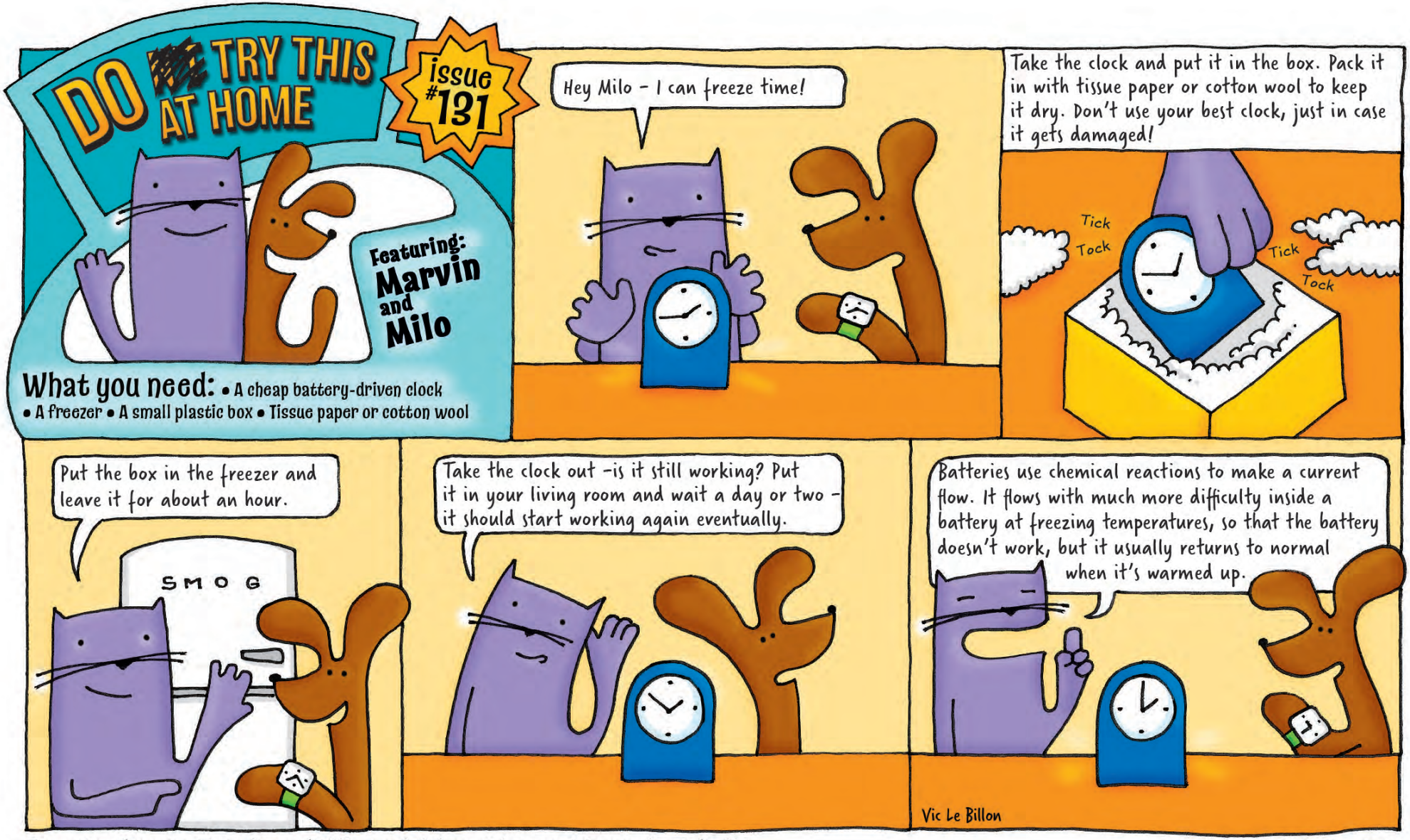

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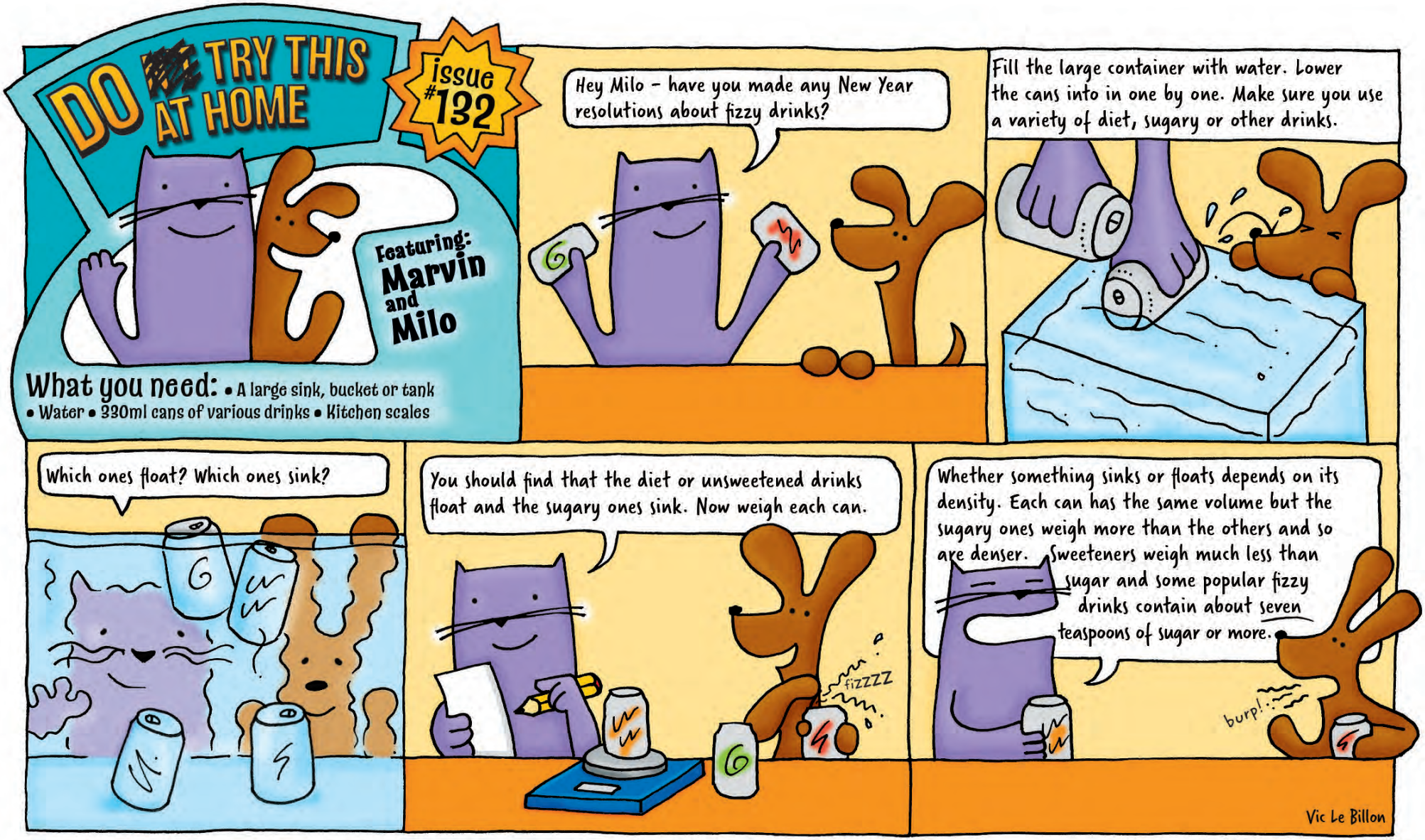

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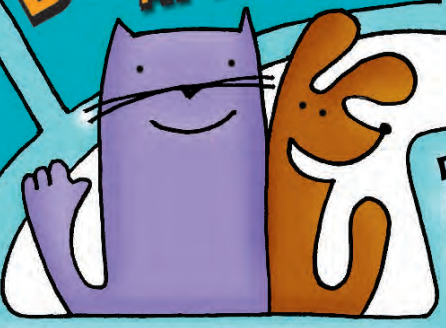
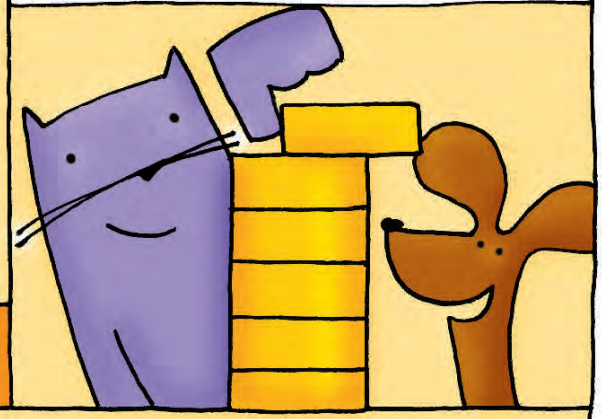
issue #133

Featuring: Marvin and Milo

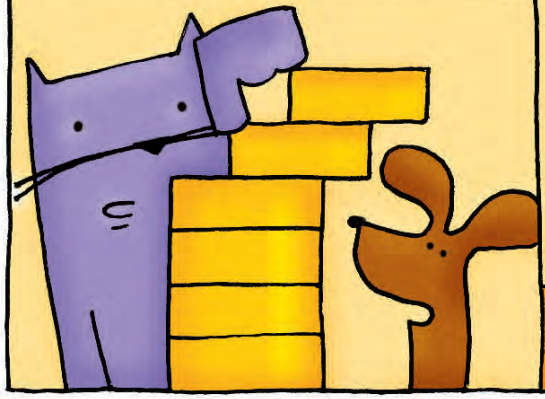


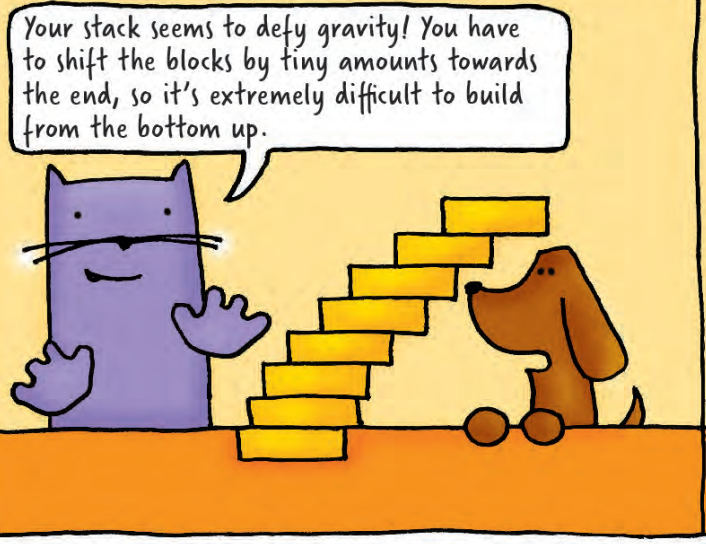
What you need:
- A flat surface
- About 15 identical flat blocks or books

Stack the blocks to make a tall column with each placed exactly over the ones beneath. Move the top block to the right as far as it will go without falling.



Move the top two blocks together so that they overhand the third block as far as possible without falling. Keep going in the same way down the column.





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issue #134

Featuring: Marvin and Milo

What you need: • Four or more small magnets • Strink or strong thread • Sticky tape • A horizontal rod e.g. a pencil • A flat surface

Hey Milo – did you know you can cause chaos with magnets?!*

* Keep magnets away from toddlers!

Fix the rod in place and hang one magnet from it to make a pendulum.

Tape the rest down in an equal-sided pattern e.g. a triangle or square.

With the pendulum very close to the magnets, give it a gentle push. Try changing its starting point, or swinging it harder.

The pendulum will move weirdly, maybe reversing or hanging around one magent before settling above another. A slight change to how you start it off will make a big difference to where it ends up.

Gravity, the magnetic attractions and pushes on the string work together in complicated ways so that it's very difficult to predict how the pendulum will swing or where it will settle, even though it's following the laws of physics.

Vic Le Billon

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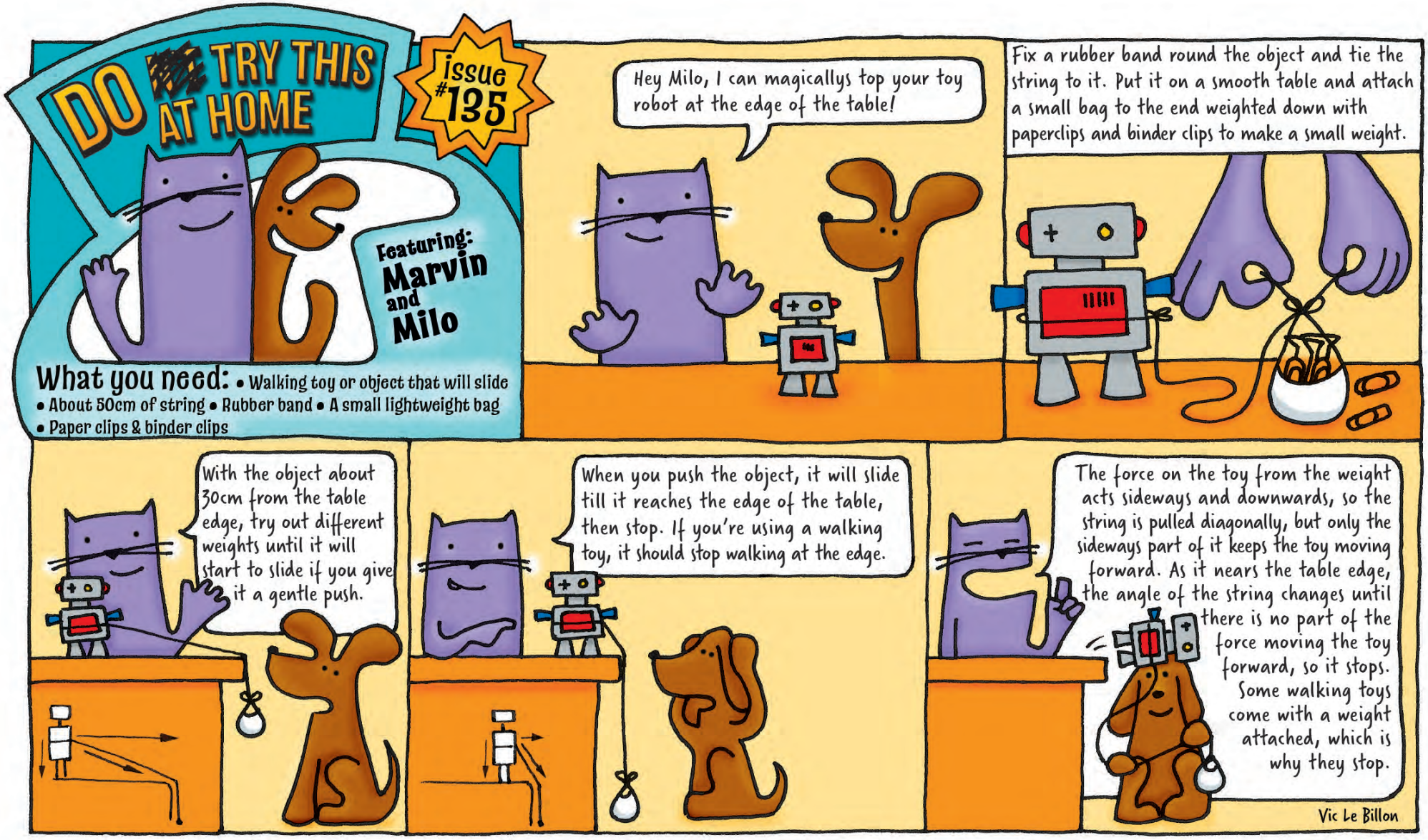

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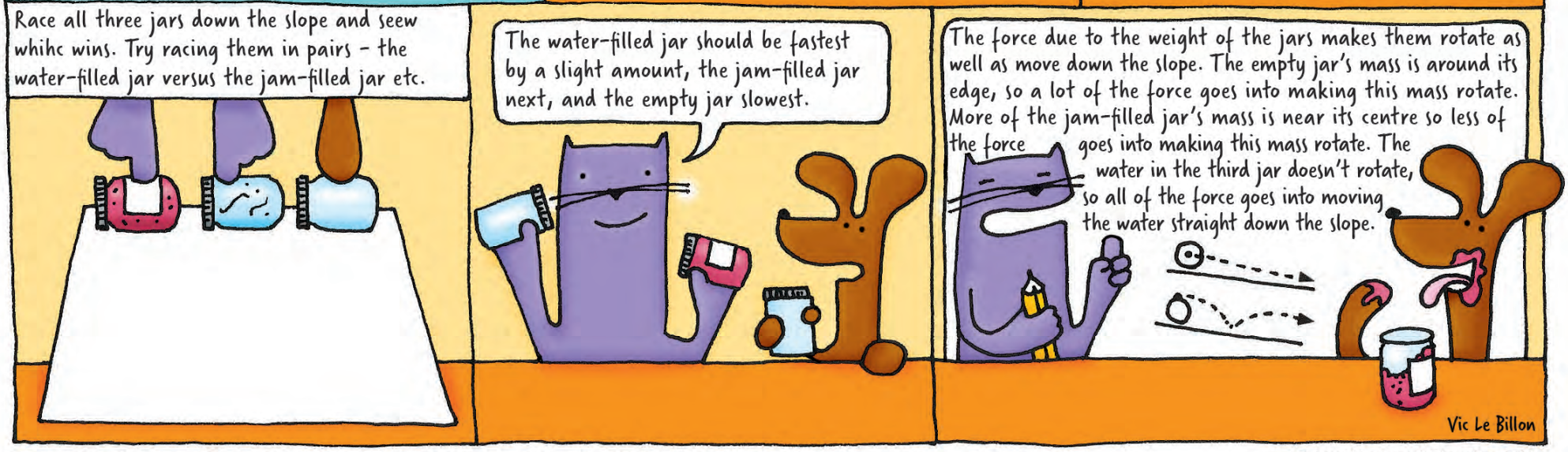
issue #136

Featuring: Marvin and Milo

What you need: • Three identical jam jars • Jam • Water • A gentle slope



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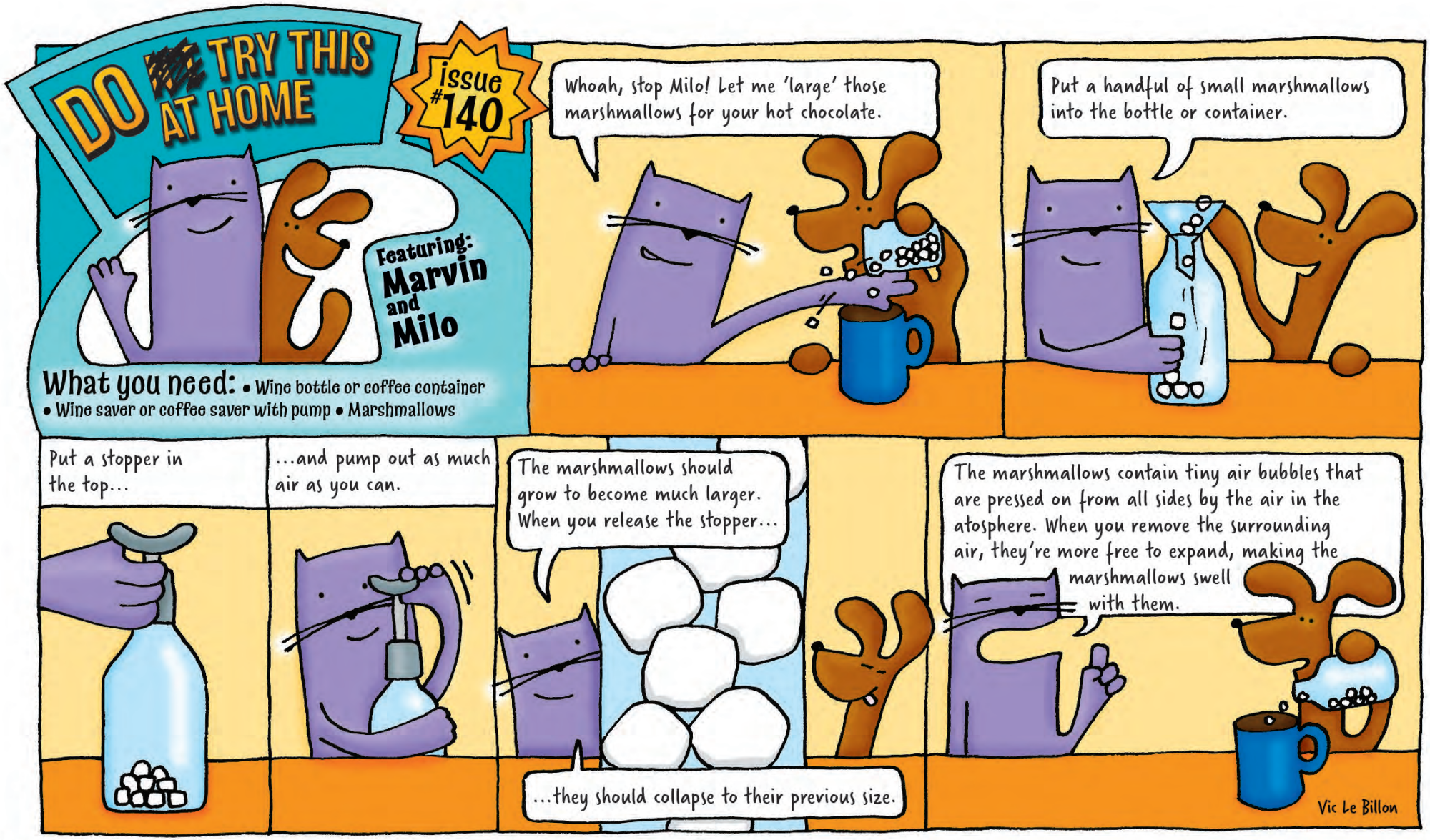

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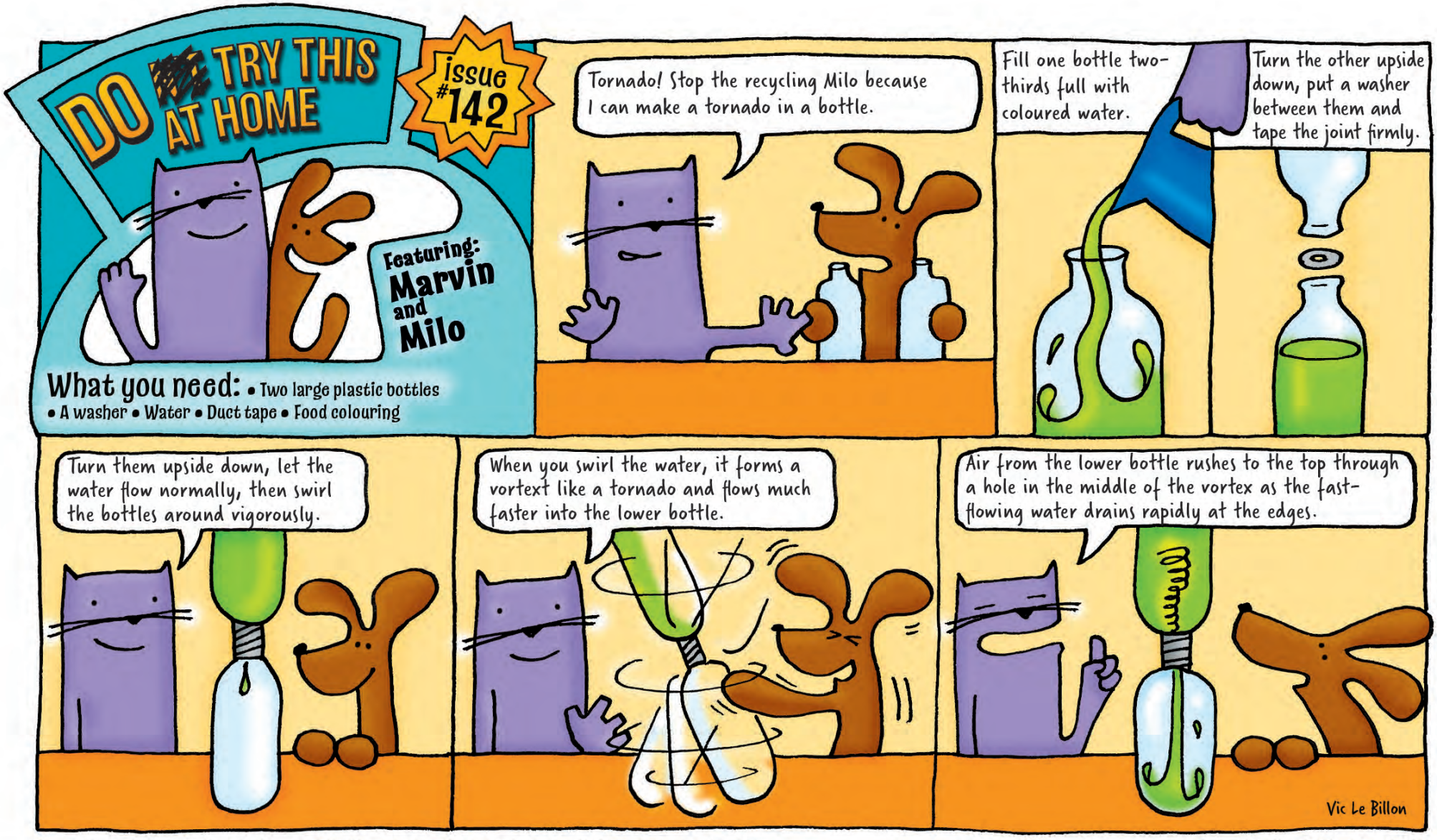

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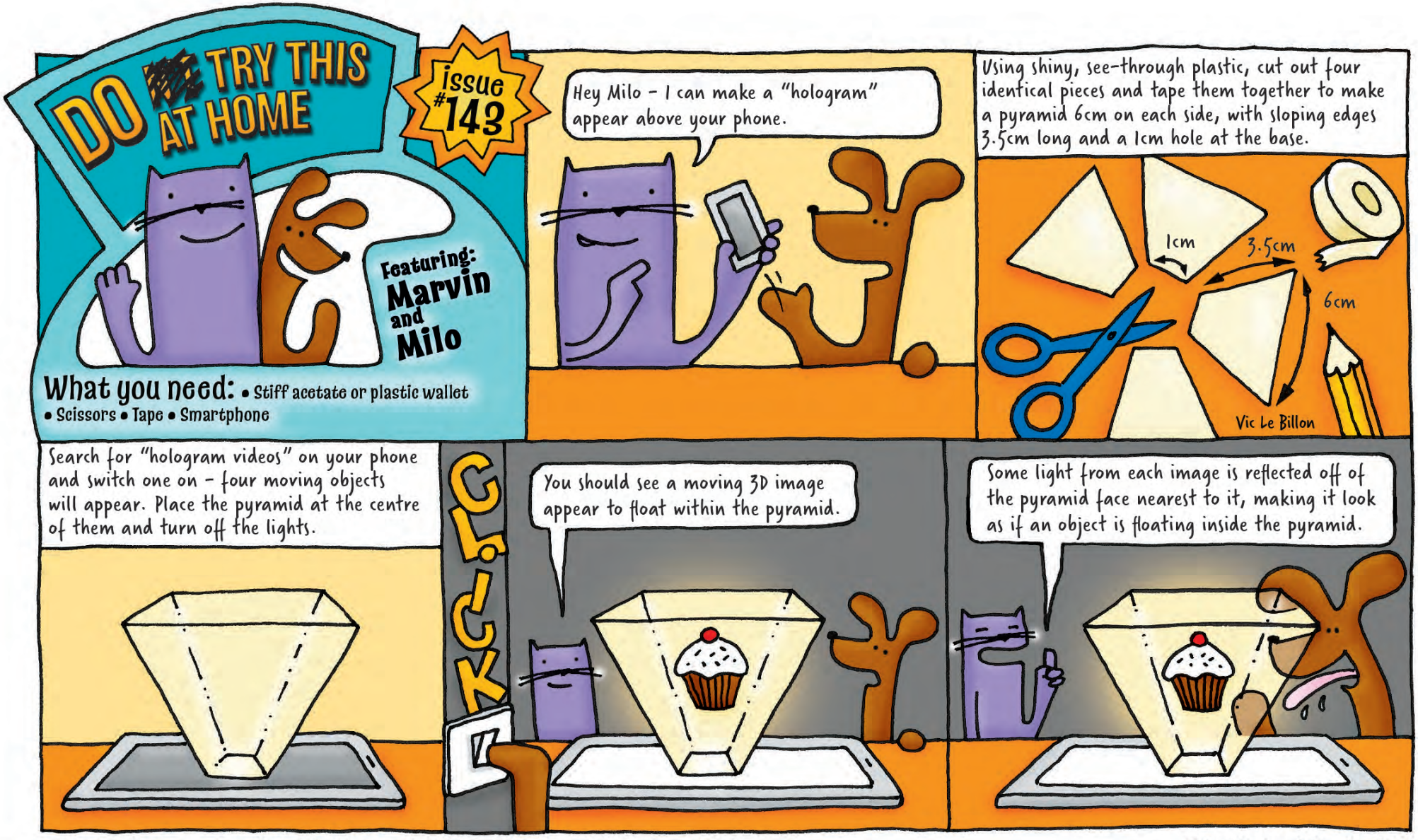

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issue #144

Featuring: Marvin and Milo

What you need: • Six pipe cleaners or coated wires • Six straws • Scissors • Soap solution • Bubble wand

Hey Milo – did you know that a bubble can be square?

Cut the pipe cleaners in half to make 12 pieces. Twist the ends of three pieces together to make a pyramid shape – make four of these.

Cut the straws in half to make 12 pieces and slide these over each leg of the pyramids. Twist the ends of each leg together to form a cube.

Submerge the cube in the soap solution for a few seconds then lift it out and move it gently till you have a horizontal square in the middle. Blow a bubble and drop it onto the square.

The centre becomes a bulging cube! Attractive forces in the soap mixture pull the film into a shape that minimises distances, creating the central square. These forces also pull the cube in the centre into a more spherical shape

Vic Le Billon

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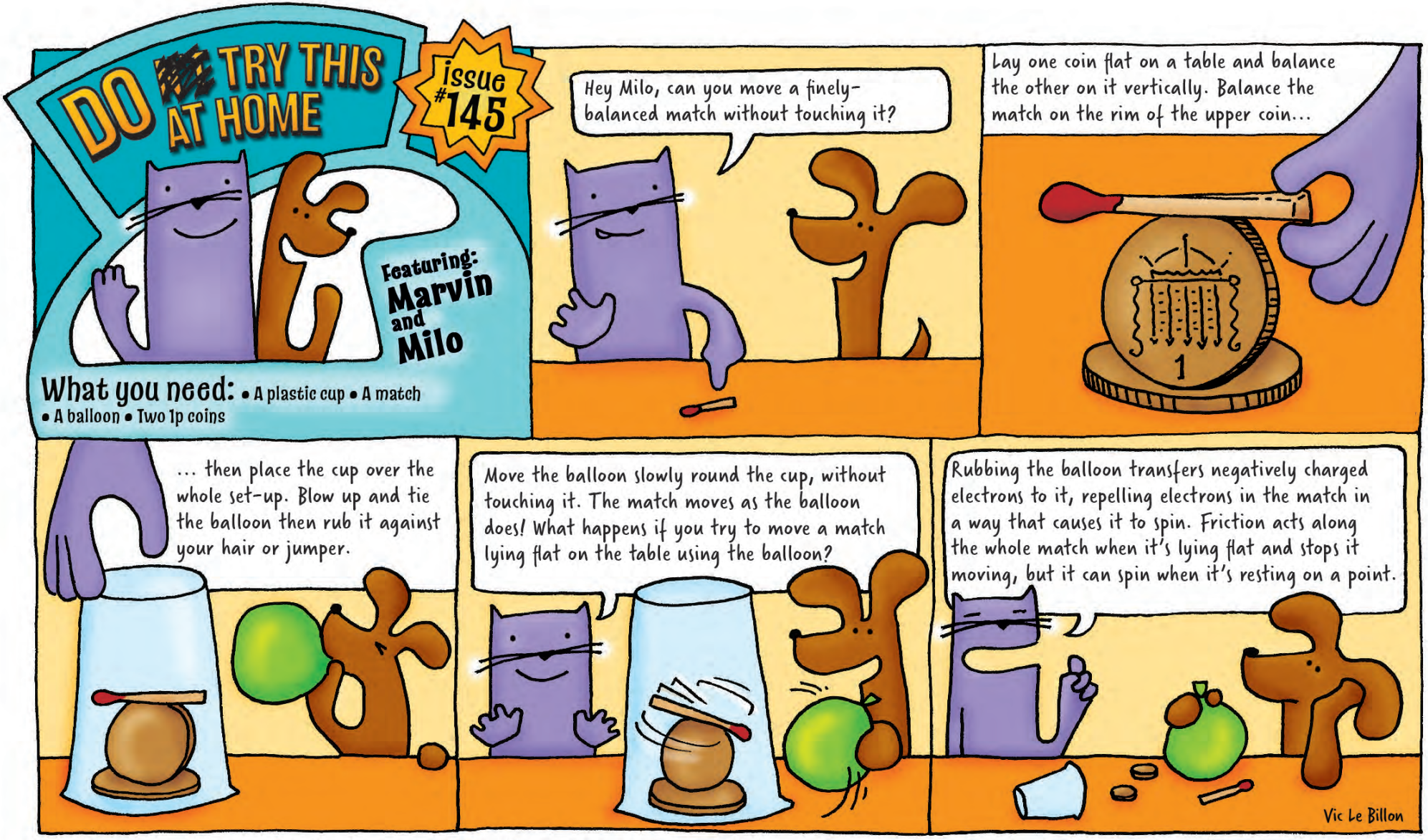

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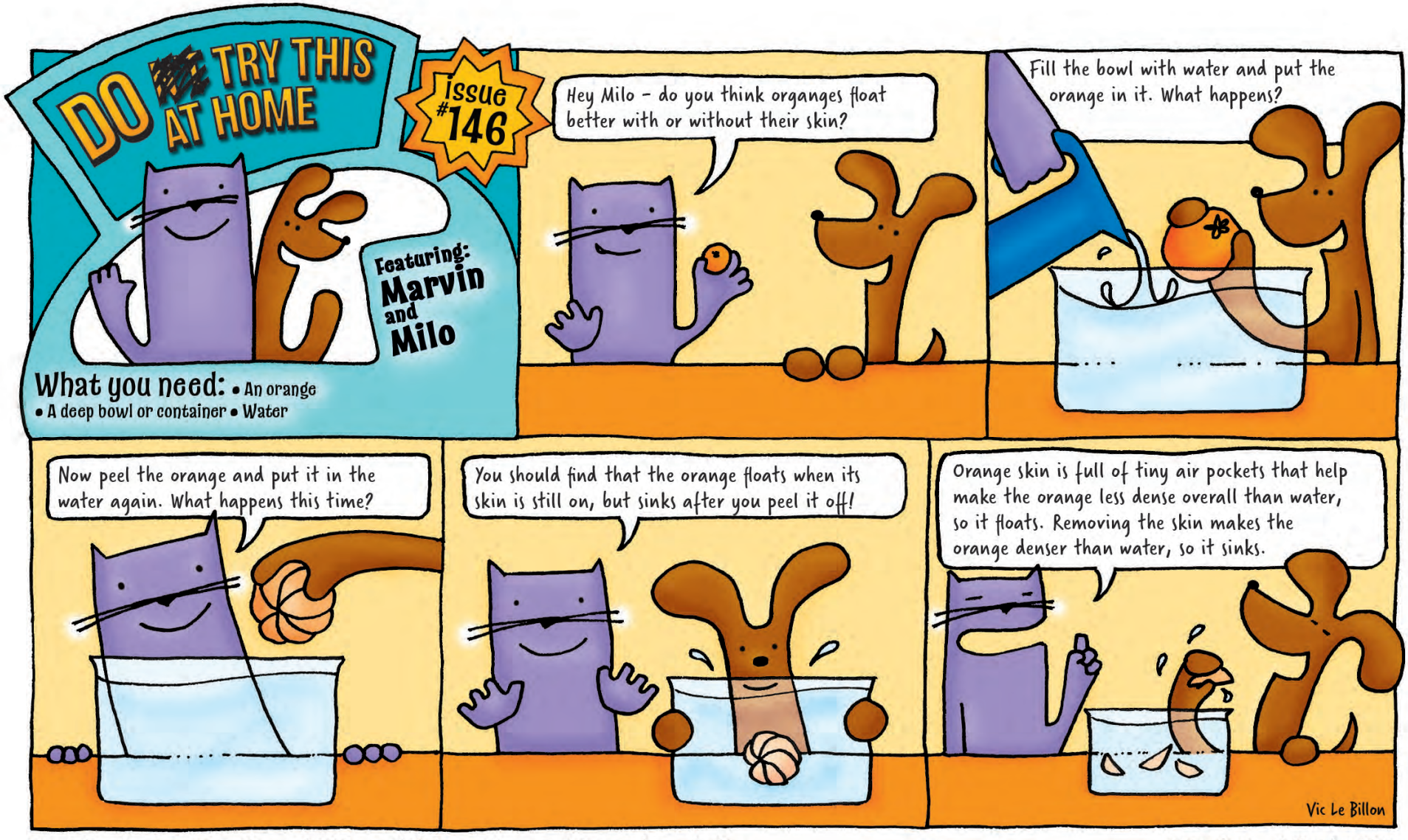

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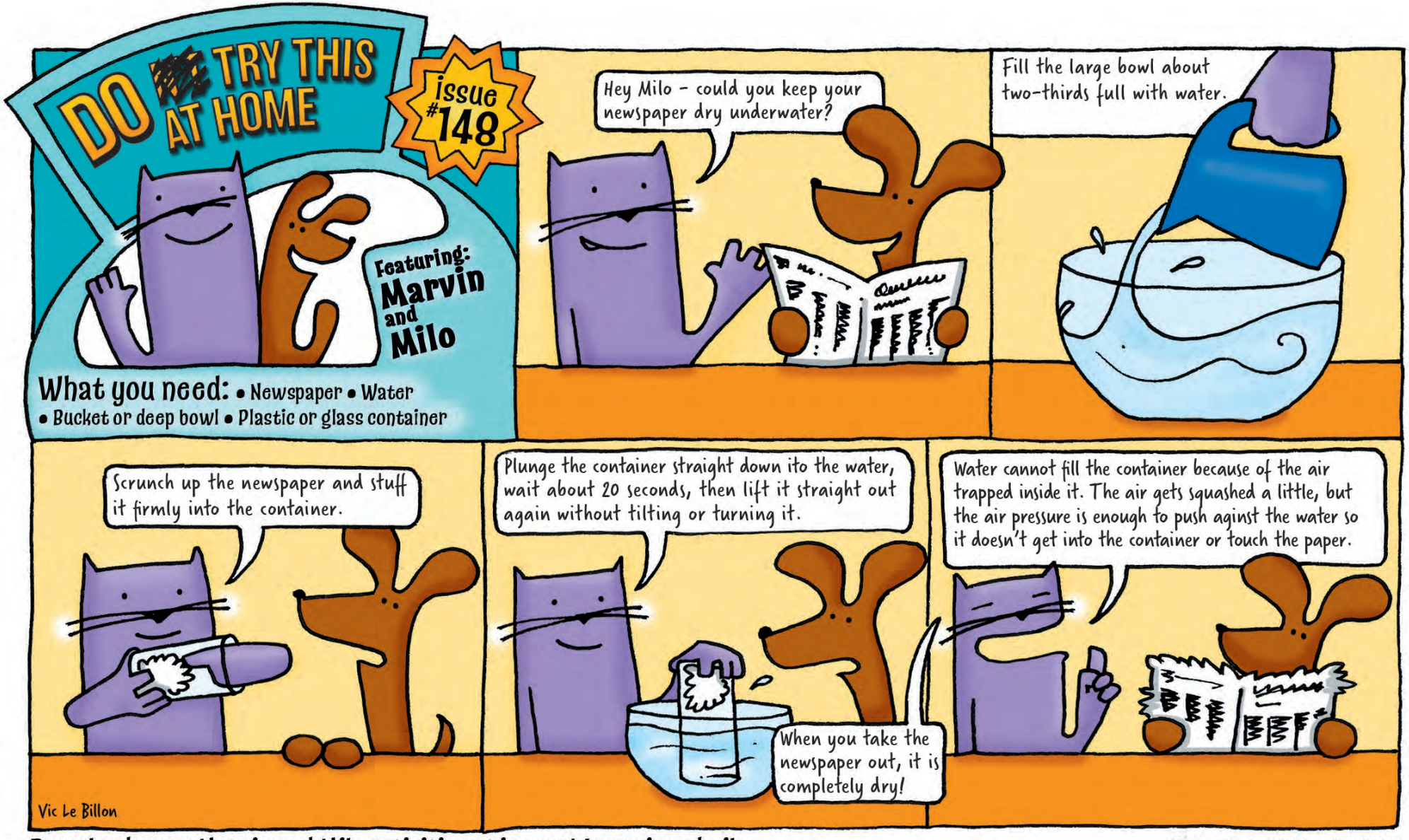

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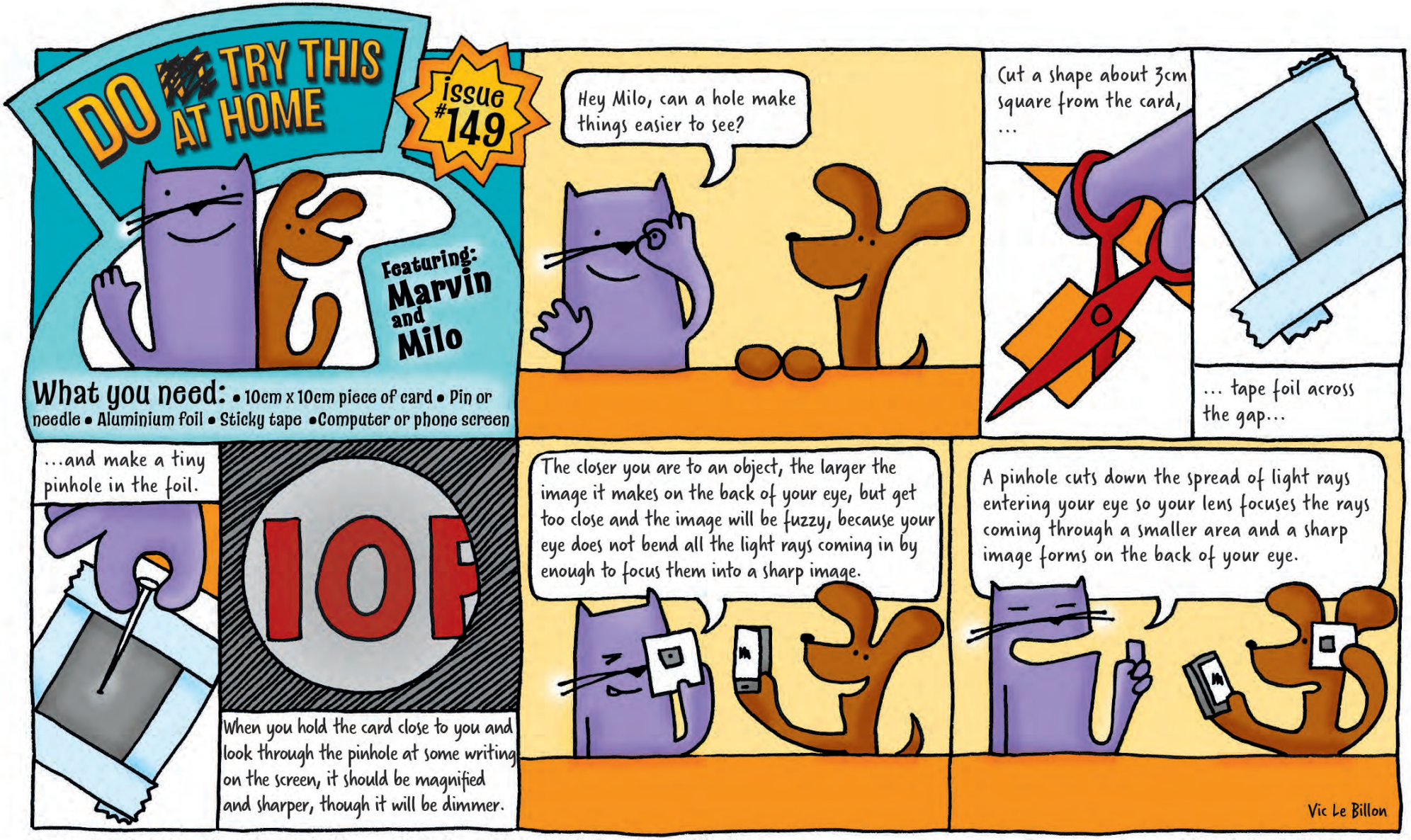

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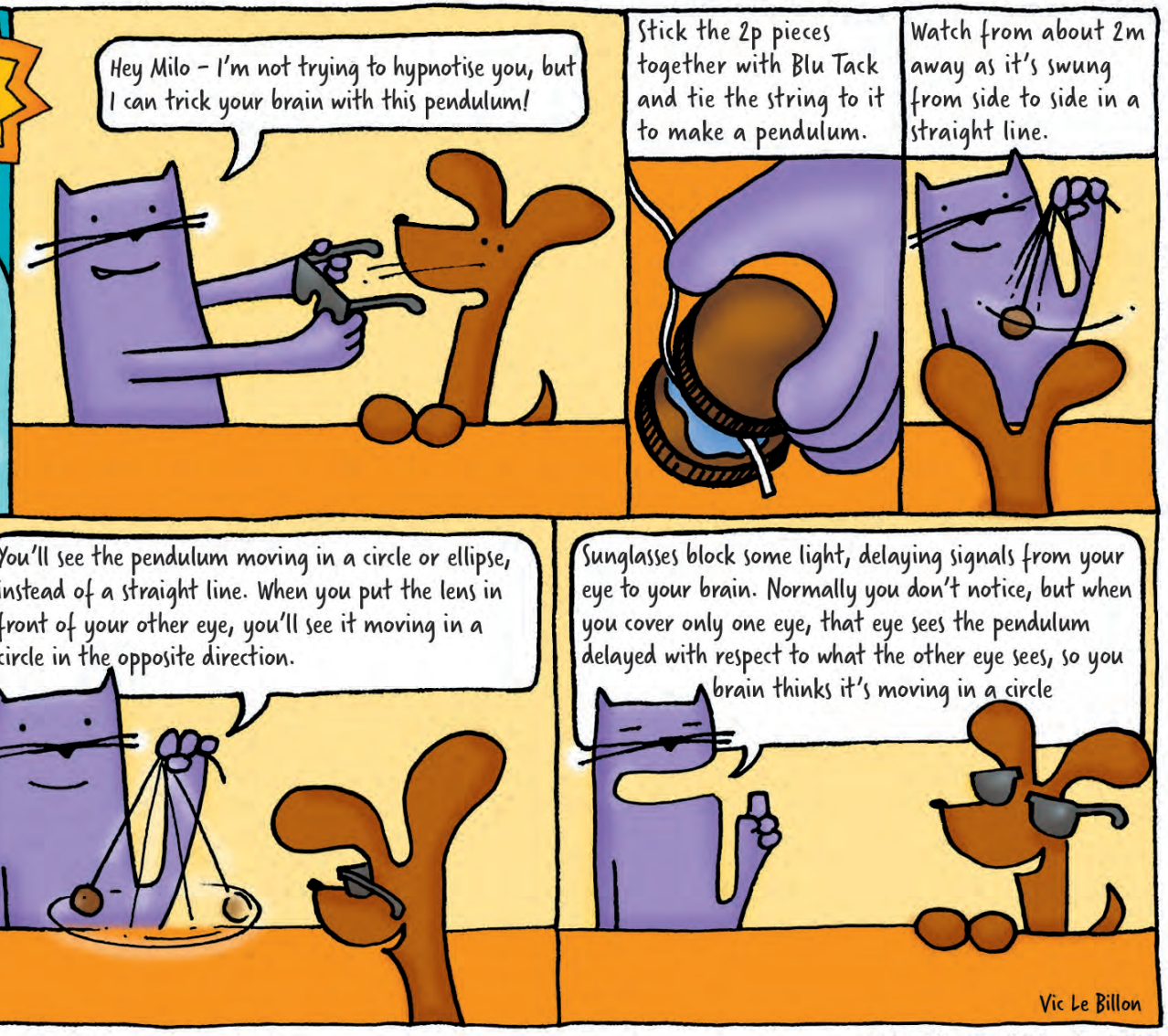
issue #152

Featuring: Marvin and Milo

What you need: • Blu Tack • String about 1 metre long • Two 2p coins • Old pair of sunglasses



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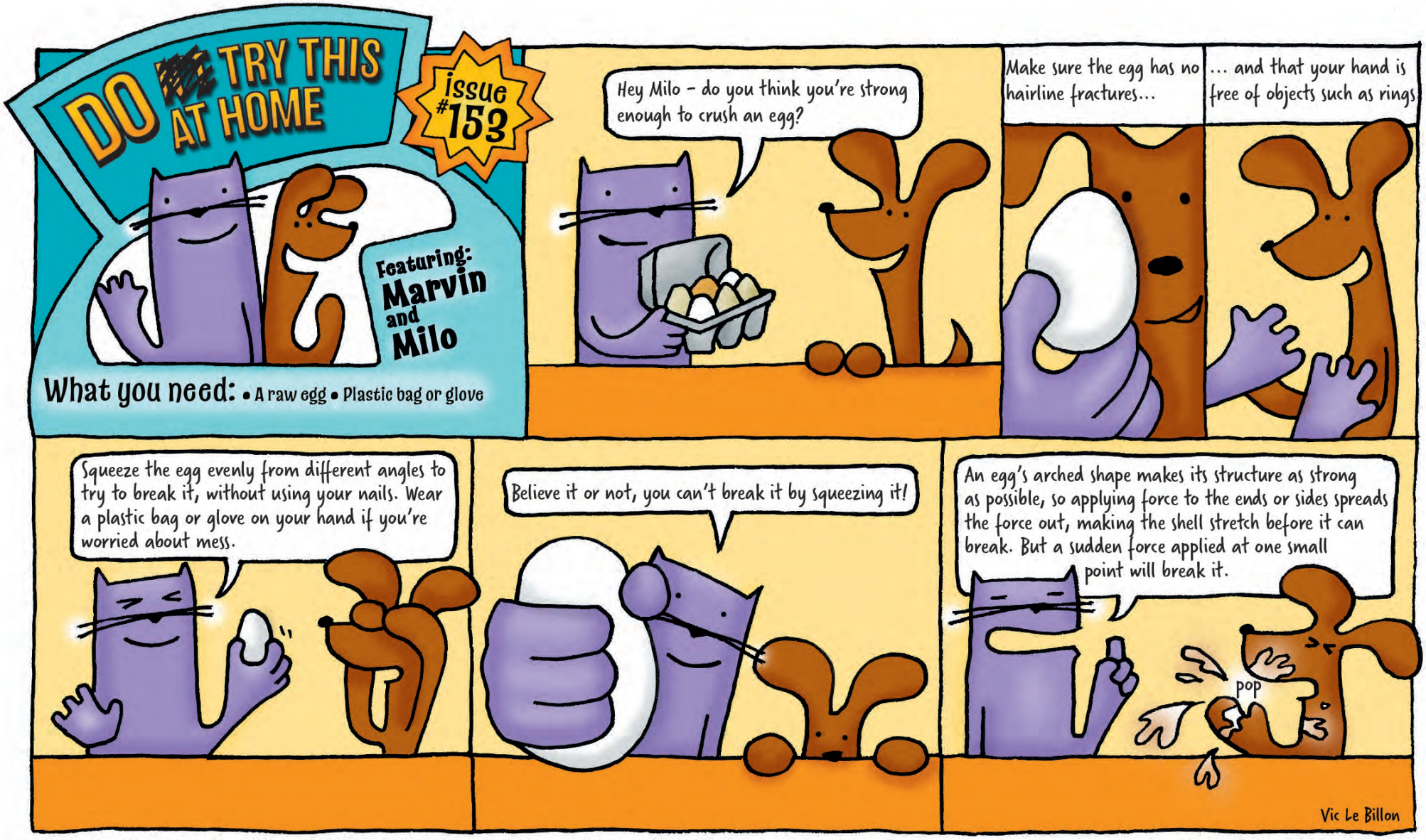

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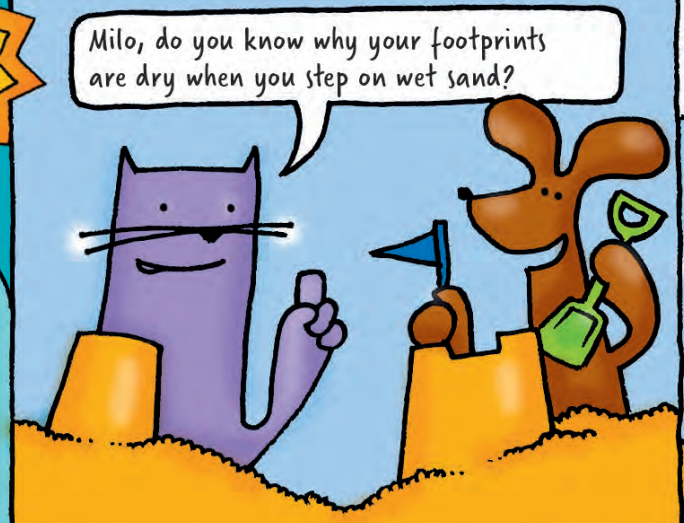
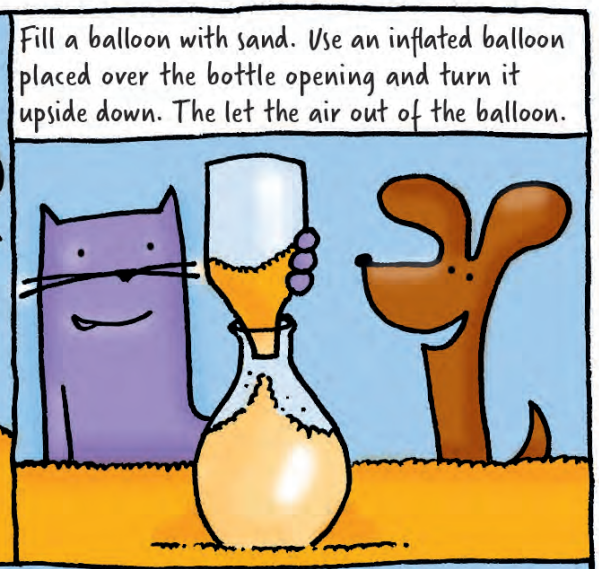
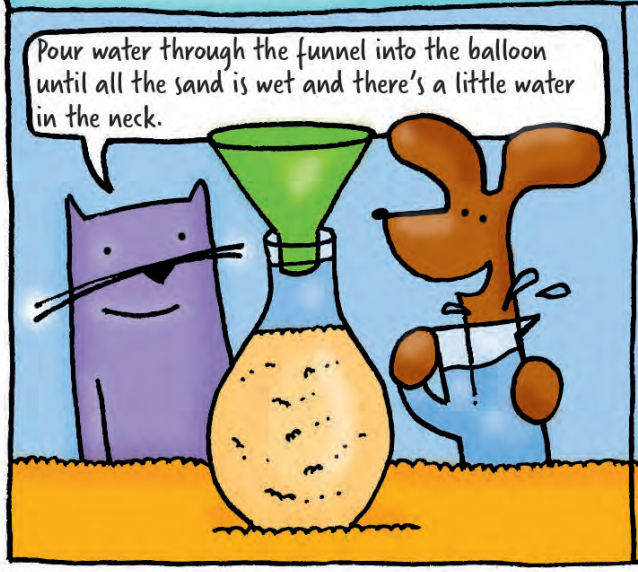
issue #154

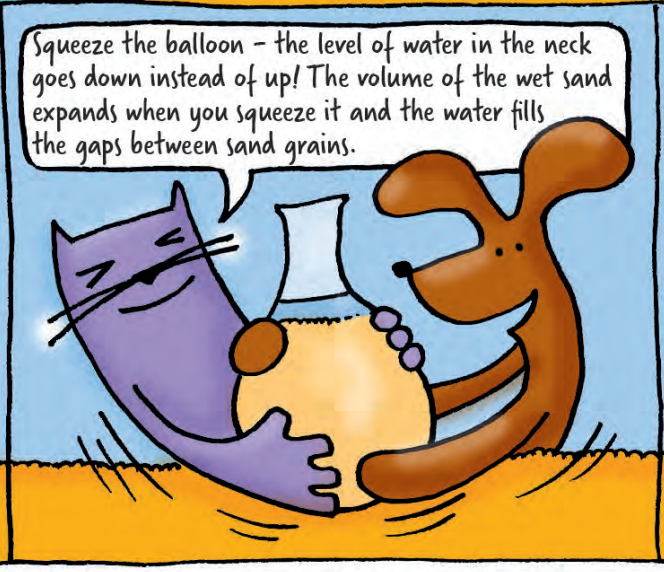
Featuring: Marvin and Milo

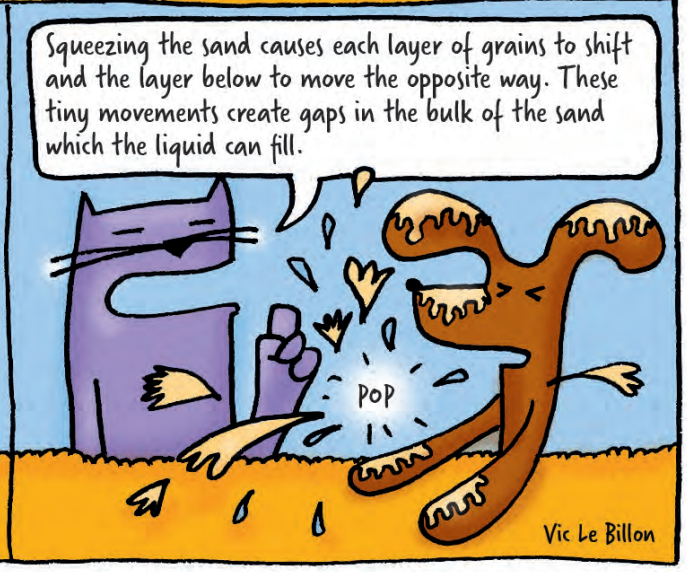
What you need: • Bottle full of dry sand • Clear balloon • Funnel • Water











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