

HOW TO PRINT THESE ACTIVITIES

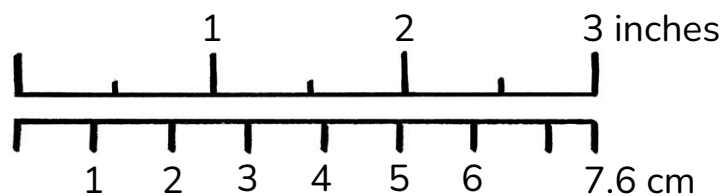
To get the most out of these activities, they must be **PRINTED ON PAPER**.

Do not animate directly off a tablet or computer screen!

PRINTER SETTINGS:

- Paper Size: US Letter (8.5" x 11")
- Orientation: Portrait
- Scale: 100% / Actual Size (never 'Fit to Page')
- Print Mode: Single-sided
- International / A4 Note: Select 100% / Actual Size (never 'Fit to Page'). The margins will look slightly different, but the sizes will be exact!

SCALE CHECK:



Measure this line with a ruler after printing.
It should measure exactly **3 INCHES** (or **7.6 cm**).

If it matches, your activities are perfectly scaled!

HOW TO SET UP YOUR PHONE

Your phone **MUST NOT MOVE!**

If it wiggles or falls over when you take a picture, your animation won't look smooth.

Here are easy ways to **KEEP YOUR PHONE STILL:**

- Small phone tripod
- Phone stand
- Cereal box with a slot cut out



STOP-MOTION APPS

There are lots of **FREE STOP-MOTION APPS** you can use.

All you need is an app that can take pictures and play them back at 12 frames per second (12 FPS).

To watch how I set up my phone and which apps I recommend, scan the QR code or visit:



setup.stopmotionbook.com
(always ask a parent for help)

EASE IN & EASE OUT

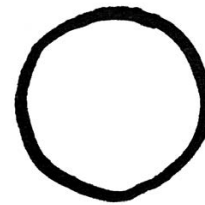
A change in speed is called **EASING**:

EASE IN = slowing down (easing into a stop)

EASE OUT = speeding up (easing out of a stop)

In this activity, **EASING** makes the movement feel more natural because real objects have momentum and take time to change speeds.

OBJECT: *A coin, button, or small object that fits inside this circle:*

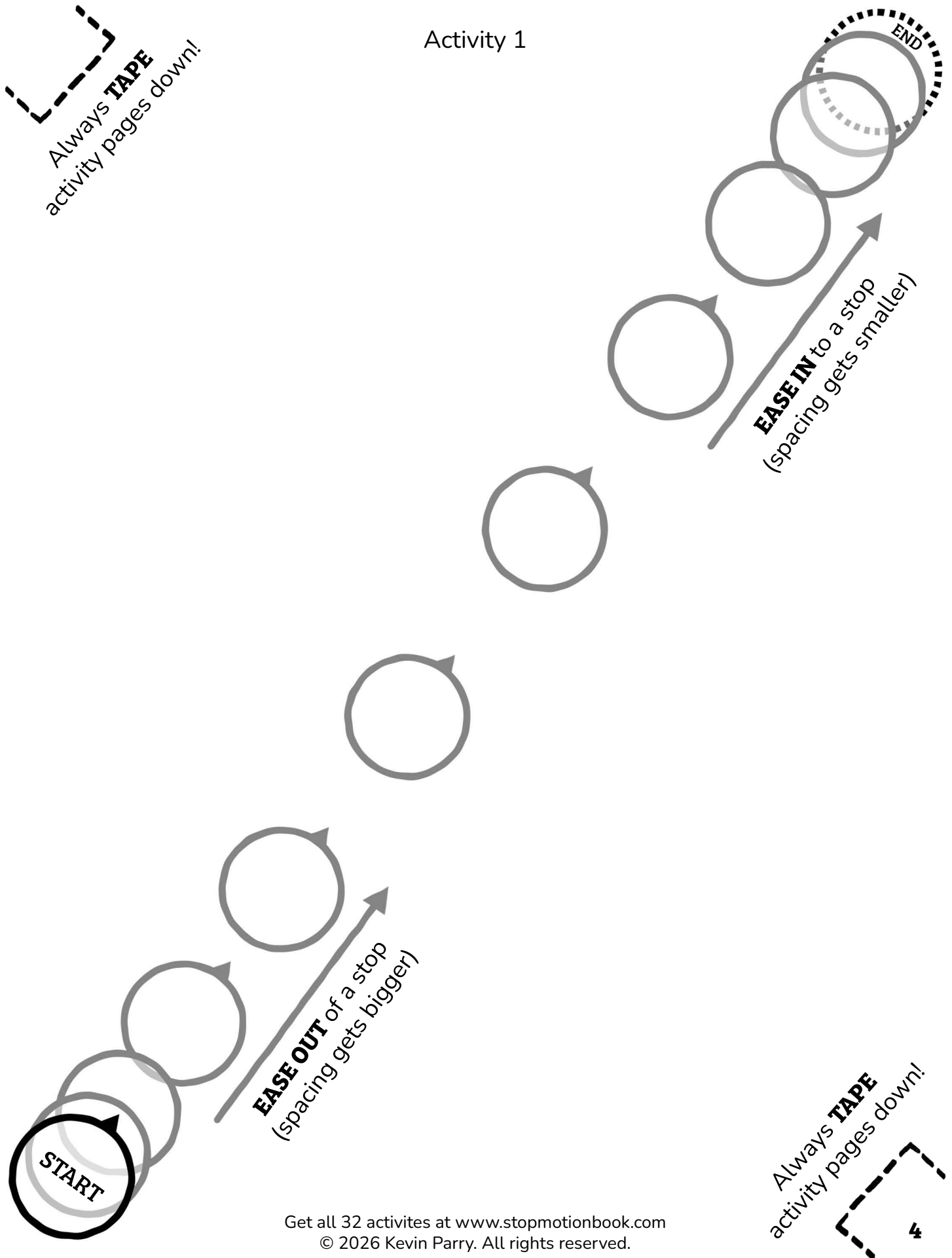


ON THE ACTIVITY PAGE:

1. Place your object in the **START** circle. Take 6 frames.
2. Move to the next circle and take 1 frame. Keep repeating.
3. When you reach the **END** circle, take 6 frames.

Always **TAPE**
activity pages down!

Activity 1



Always **TAPE**
activity pages down!

'C' CURVE



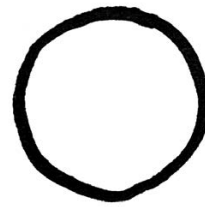
Moving in a straight line feels mechanical
(great for machines and robots).

Most things in nature move along curved paths or arcs.

This activity follows a **'C' CURVE** (it looks like the letter 'C').

'C' curves feel more organic than a straight line.

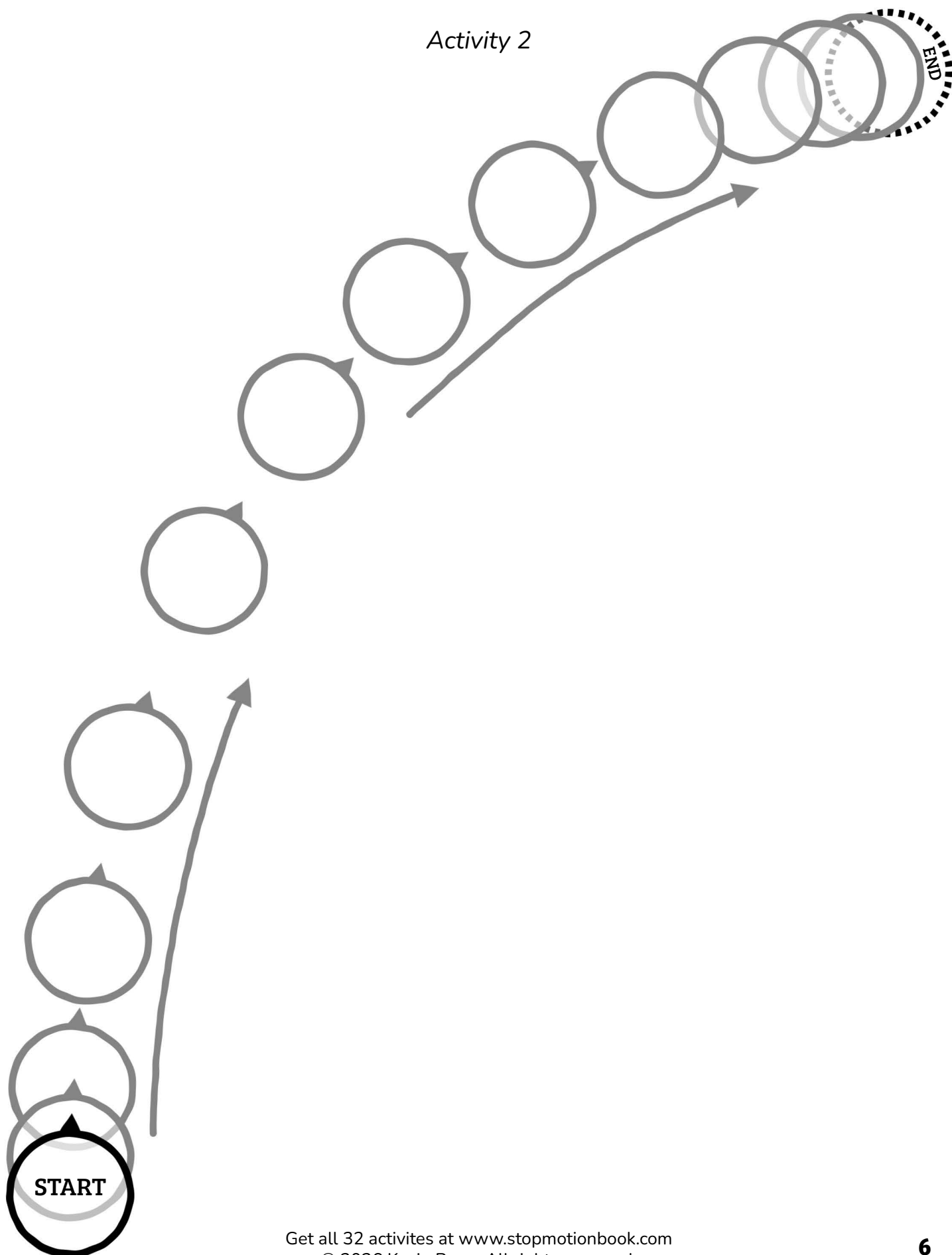
OBJECT: *A coin, button, or small object that fits inside this circle:*



ON THE ACTIVITY PAGE:

1. Place your object in the **START** circle. Take 6 frames.
2. Move to the next circle. Take 1 frame. Keep repeating.
3. When you reach the **END** circle, take 6 frames.

Activity 2





SQUASH & STRETCH



SQUASH is when an object gets wider and flatter from a force like weight or impact.

STRETCH is when an object gets longer and thinner from a force like speed or momentum.

The bouncing ball in this activity **SQUASHES** when it hits the ground and **STRETCHES** when it speeds up and down.

OBJECT: A pipe cleaner loop made to match this size:

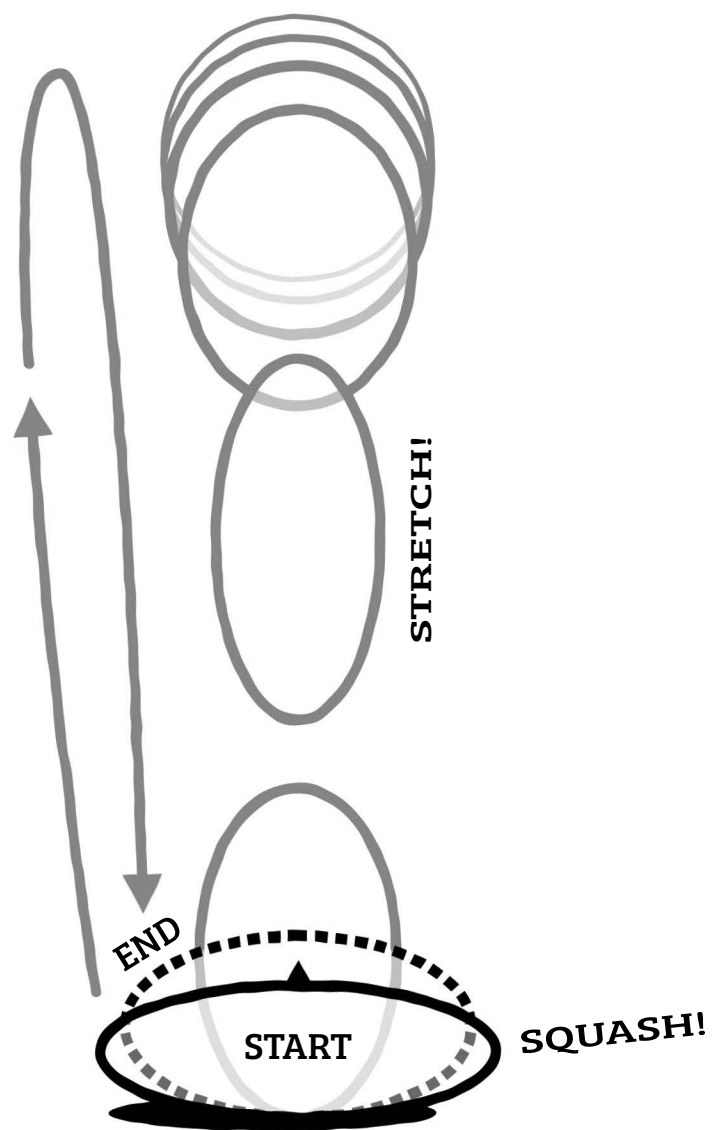


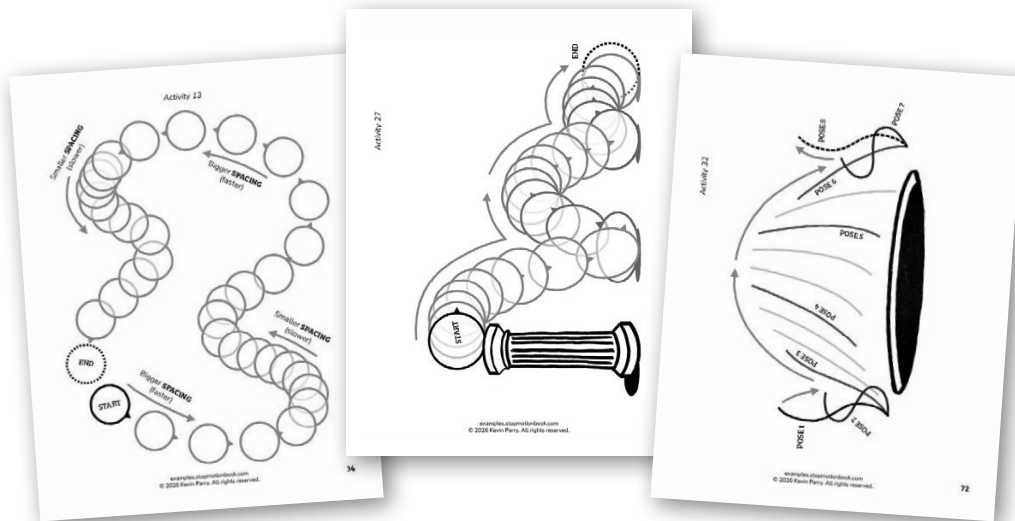
(twist the ends together)

ON THE ACTIVITY PAGE:

1. Place your sculpted pipe cleaner loop on the **START** shape. Take 1 frame.
2. Move to the next shape along the path and sculpt the pipe cleaner loop to the new shape. Take 1 frame.
3. Repeat step 2, turning around at the top of the path, until you reach the **END** shape.
4. Enable **LOOPED PLAYBACK** in your app to watch the pipe cleaner squash and stretch!

Activity 3





READY FOR ALL 32 ACTIVITIES?

You've mastered **EASING**, **CURVES**, and **SQUASH & STRETCH**, now it's time to learn:

- Speed
- Rotation
- Weight & gravity
- Anticipation & overshoot
- Overlapping action
- And more!

Scan the QR code or visit the link to learn more:

www.stopmotionbook.com

Point your phone
camera here