

Animate a Pendulum, Part 1: The Arc and the First Swing

40 minutes

Following My Interests Online

Outcome 3.8

WHAT THIS LESSON DOES

Students draw a pendulum, build a locked guide layer for its arc, and animate the swing out to one side with deliberate frame spacing.

CURRICULUM OUTCOMES

Outcome	What the specification asks for
3.8	Create a digital montage on a specific topic of interest from images sourced online while applying learning regarding copyright, fair use, plagiarism and intellectual property ownership.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Explain why frame spacing controls apparent speed
- Build a locked guide layer to hold a motion path
- Copy an element frame to frame so it keeps its size
- Animate a swing along an arc with spacing that matches real movement

BEFORE THE BELL

- WICK EDITOR NEEDS NO ACCOUNT. Same set-up as the previous lesson.
- This lesson follows on from the first animation lesson and assumes onion skinning is familiar. If the class has not done that one, do it first, this will not stand alone.
- The physics is worth one sentence, no more: a pendulum is slowest at the top of each swing and fastest through the bottom. Everything else follows from that.
- Copying and reversing frames is the step students find fiddly. It is also the one that saves them half the drawing, so it is worth the time.
- Devices with a browser. Wick Editor needs no account, but it keeps nothing once the tab closes.

WHAT YOU NEED

Item	Qty	Per	If you do not have it
Chromebook/Laptop/PC		student	
Wick Editor needs no account			Free, browser-based, no sign-up and no adverts. Work saves to the browser, not a server, so students must export before closing the tab.

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HOW THE LESSON RUNS		
4 min	introduction	Start
4 min	content	Spacing is timing
13 min	activity	Hands-on: Draw the pendulum and its arc
13 min	activity	Hands-on: Swing it to one side
4 min	content	Make sense
2 min	summary	What you covered