

Motion Graphics Fundamentals — Workbook

This workbook turns the course into three finished, exportable pieces. You will set up compositions at real specs, animate with keyframes, shape every move with easing and the graph editor, organise scenes with pre-comps and shape layers, and export to the correct file through Media Encoder. Work through one section per module and finish with a 1080x1080 social loop, an animated presentation slide, and a roughly 20-second explainer you could put in a portfolio today. Use the included templates to plan timing, lock a palette, and run a pre-export check so nothing ships broken.

The After Effects Workspace and Your First Keyframes

Set up a project at the right spec and animate your first transform properties with keyframes you can read.

Worksheet: Composition Spec Sheet

Lock your three numbers before you animate anything. Fill one of these for each piece you build so the comp settings trace back to where the work will actually be used.

Piece name (social loop / slide / explainer)

Destination (Instagram feed / Reels / 16:9 deck / website)

Resolution in pixels (e.g. 1080 x 1080)

Frame rate (24 / 25 / 30 fps) and the reason

Duration in seconds

Background (transparent / solid colour / which colour)

Sound on or off for this destination

Loop required? (Y/N)

Exercise: First Keyframes Drill: Slide a Title In

Create a new comp at 1920 x 1080, 30 fps, 5 seconds. Add a text layer and animate it sliding up into place, then read your own motion back in the timeline.

- Press P to reveal Position, set a keyframe at 0 seconds with the text 200 pixels below its resting spot, then a second keyframe at 1 second in its final spot.
- Now add a second property: press T for Opacity and animate it from 0 to 100 over the same time. Note how

revealing one property at a time with P, S, R, T keeps the timeline readable.

- Press U to show only the keyframed properties, then describe in one sentence how the motion feels right now (it should feel robotic and constant).
- Save with Increment and Save so you keep this linear version to compare against the eased version you build in the next section.

Checklist: Project-Ready Pass

- My comp resolution, frame rate, and duration were chosen from the destination, not left as defaults
- Frame rate is 30 fps unless I had a specific reason for 24 or 25
- Every layer is renamed to something readable, not Shape Layer 1 through 14
- I am using the single-key shortcuts P, S, R, T to reveal only what I am animating
- I pressed Home to return the playhead and spacebar to preview at least once
- I saved with Ctrl+S and used Increment and Save at a version I liked

Easing and the Graph Editor

Convert linear motion into believable movement and apply timing offsets that make motion feel intentional.

Exercise: Linear vs Eased A/B Test

Take the title animation from the previous section and create three versions of the same one-second move so you can feel the difference easing makes.

- Version A: leave it linear. Version B: select both keyframes and press F9 (Easy Ease). Version C: open the Speed Graph with Shift+F3 and drag both handles out to roughly 75 percent influence.
- Preview all three back to back and write one sentence each on how the motion reads (cheap, considered, smooth).
- On version C, drag one handle upward to create overshoot so the title flies slightly past and settles. Note where you would use that (energetic UI) versus where you would not (a calm corporate reveal).
- Pick the version you would actually deliver and say why in one line.

Worksheet: Easing Decision Sheet

For each element in a piece you are building, decide its easing intent before you touch the handles, so the feel is a choice rather than an accident.

Element name

Desired feel (snappy / smooth / heavy / overshoot / mechanical-linear)

Easing applied (F9 / Speed Graph 75% / handles to 100% / overshoot / left linear)

Move length in frames

Stagger offset from the previous element (frames)

Notes on the graph shape after adjusting

Exercise: Staggered List Reveal

Build the cascade that appears in nearly every explainer and slide. Stack four rows and offset their starts so they arrive one after another.

- Animate each of four rows: Position from 30 pixels below to its resting place, plus Opacity from 0 to 100. Apply F9 to all keyframes.

- Offset row two by 3 frames, row three by 6 frames, row four by 9 frames (about 2 to 4 frames per element at 30 fps).

- Preview and confirm the list cascades cleanly rather than appearing as one flat block.

- Add a hold of at least 12 to 20 frames on the finished list so the eye can read it before anything else happens.

Checklist: Motion-Feel Pass

- Every animated property has had its easing chosen deliberately, not left linear by accident
- I shaped at least one move in the graph editor rather than only pressing F9
- I understand whether I am working on the Value Graph or the Speed Graph at any moment
- Sibling elements are staggered by 2 to 4 frames, not arriving all at once
- Finished states hold long enough to be read before the next move
- Constant or looping motion is left Linear so it does not stutter

Pre-Comps, Shape Layers, and Staying Organised

Keep a growing scene editable with pre-comps and nulls, and build sharp graphics with shape layers and trim paths.

Exercise: Pre-Comp and Null Rig

Take a group of layers (for example a logo plus its text) and make it controllable as one unit without flattening the individual animations.

- Select the group and pre-compose with Ctrl+Shift+C, then double-click in to confirm you can still edit the original layers.

- Create a Null Object and parent several layers to it using the pick-whip in the Parent column.

- Animate only the null to move or scale the whole group, and confirm each child keeps its own independent animation on top.

- Write one sentence on which of your scenes most needs this rig and why.

Exercise: Trim-Path Draw-On

Build the self-drawing line reveal that powers underlines, checkmarks, signatures, and diagrams.

- With no layer selected, use the Pen tool to draw a stroke-only path (fill none, visible stroke) such as a checkmark or underline.

- Add then Trim Paths from the Contents row, then keyframe End from 0 to 100 percent so the line draws on.

- Press F9 to ease the draw-on and refine the curve in the graph editor.

- Set the stroke Line Cap to Round and note how much more finished the end of the line looks.

Worksheet: Shape Layer and Repeater Planner

Plan each built graphic before you make it, so you reuse one original shape and let operators do the duplication.

Element name

Built from (shape tool / Pen path / text)

Stroke or fill colour (from your palette)

Trim Paths used? (Y/N and what it reveals)

Repeater used? (copies and offset type: X / Y / rotation)

Animated properties and their easing

Checklist: Organisation and Vector Pass

- Complex groups are pre-composed and still editable by double-clicking in
- A null object controls any group that needs to move as one
- Graphics that scale up are shape layers, not raster images that would blur
- At least one trim-path draw-on is built with Round line caps and eased motion
- Repeating patterns use the Repeater driven from a single original shape
- The timeline is readable: named layers, grouped scenes, no orphan clutter

Designing for Social, Slides, and Explainers, and Exporting Right

Assemble the three deliverables and export each to the correct format through Media Encoder.

Exercise: Seamless Social Loop

Build a finished 1080x1080 loop whose seam is invisible and whose message lands sound-off in the first second.

- Set the comp to your chosen loop length (4 to 8 seconds) and make each looping property's final keyframe equal its first.
- For any constant spin or scroll, set the wrapping keyframes to Linear so there is no ease bump at the seam.
- Put the strongest message in the first second with large, legible type kept away from the edges.
- Enable loop playback in the Preview panel and watch the join several times until you cannot spot it.

Exercise: explainer Scene Build

Construct a roughly 20-second explainer as scenes joined by transitions, using the skills from every earlier module.

- Write a tight script (around 130 to 150 words per 60 seconds) and storyboard one key frame per scene.
 - Build each scene as its own pre-comp using staggered text, a trim-path draw-on, and a repeater pattern, all eased with F9.
 - Lay the scene pre-comps end to end on the main timeline and reorder by dragging until the story flows.
 - Join scenes with a cross-dissolve, wipe, or a matched move that carries the eye, and hold the final frame an extra second.
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Worksheet: Export Decision Sheet

Before each render, write down the destination and the exact format and codec so you never ship the wrong file. Leave any quality or size figures blank until after you render and measure them.

Piece name

Destination (social / presentation / master / overlay / web loop)

Format and codec (H.264 MP4 / ProRes 422 MOV / ProRes 4444 MOV / WebM / Lottie JSON)

Transparency needed? (Y/N, and ProRes 4444 if yes)

Work area set to exact frames? (B and N)

Target bitrate set (if MP4)

Exported file size (fill after render)

Watched the exported file fully before sending? (Y/N)

Checklist: Pre-Delivery Pass

- Comp resolution and frame rate match the destination before exporting
- Work area is trimmed to exactly the frames I want, with no dead time
- I chose H.264 MP4 for social and presentations, ProRes for masters, ProRes 4444 for transparency
- The loop's first and last frames match and the seam is invisible
- Each explainer scene is a pre-comp and the piece reuses one palette and type system
- I watched the final exported file all the way through on a normal player before sending it

Your Action Plan

1. Install Adobe Creative Cloud and open After Effects, then switch to the Default workspace so your screen matches the course.
2. Create a new project and a composition at 1920 x 1080, 30 fps, and rename every layer as you build.
3. Animate one title slide-in with keyframes on Position and Opacity, then save a linear version with Increment and Save.
4. Apply F9 to those keyframes, then reshape the move on the Speed Graph to roughly 75 percent influence and compare.
5. Build a four-row staggered list reveal with 2 to 4 frame offsets and a hold at the end.
6. Pre-compose a group, rig it to a null object, and confirm you can drive the whole group from the null.
7. Build a trim-path draw-on with Round line caps and a repeater pattern from a single shape.
8. Assemble a seamless 1080x1080 social loop with a sound-off message in the first second.
9. Storyboard and build a 20-second explainer as scene pre-comps joined by simple transitions.
10. Export each piece through Media Encoder to the right format, then watch every exported file fully before delivering.

