

CAMERA PLAYGROUND FOR CLASSROOMS

Teacher kit

Everything you need to run Camera Playground with a class: set-up, a device check for your school network, three ready-to-teach lesson plans, a standards map and support.

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Edition October 2026 · 360apps.net/camera-playground/schools/ · support@360apps.net
Button and page names match the classroom pages at the time of writing.

Camera Playground for Classrooms – Quick Start for Teachers

From nothing to a class taking photos in about 15 minutes. You need a 360APPS account (free to create), an active pilot or licence for your school, and, for the students, a device that passes the [Device Check](#).

1. Get a pilot or a licence

Ask for a pilot or a quote with the form on 360apps.net/camera-playground/schools/: tell us your school or course, the number of students, their age band (**13+** or **adults**) and whether you need a purchase order. We set up your organisation by hand and e-mail you when it is ready. Then sign in to your 360APPS account and open 360apps.net/classroom/.

Students younger than 13? Say so in the form: under-13 classes need a Data Processing Agreement signed by the school first.

2. Create a class

On 360apps.net/classroom/ fill in **New class** and press **Create class**. Give it a name your students will recognise ("Photo 10B", "Monday evening course"). Each class gets a **join code** like `ABCD-2345` and a link 360apps.net/join/ABCD2345.

Choose how students join:

Join mode	Use it when	What students do
Roster (recommended for 13–17)	you want to decide the nicknames	you add the students, print cards, they type nickname + PIN
Open	adults, or a quick start	students open the link, type a nickname (first name + initial), get a PIN on screen
Closed	the class is complete	nobody new can join

Open joining closes by itself after 14 days.

Seats: a student uses one seat in your licence however many of your classes they are in. If you remove a student who has already signed in, their seat comes back 30 days after their first sign-in (the roster shows the date). The bar at the top shows "37 of 50 places used".

3. Add students and print login cards

In the class, open **Roster**:

- **Add a student** or **Paste a list** (one nickname per line, up to 200). For 13+ classes we suggest pseudonyms such as "Blue Fox 12"; you can rename them. Please don't use full names or e-mail addresses.
- Each student gets a **PIN** (4 digits; 6 for adult classes). You can show it any time with one click.

- In the **Join** tab, press **Print login cards** (A4, 8 per page): nickname, PIN, join code and a QR code. Write the real name on the card by hand if you need to: we don't need to know it.

4. Students join

1. Students open **360apps.net/join** and type the code, scan the QR code, or click the link you shared (on the board, in Google Classroom, Teams, Moodle or e-mail).
2. They type their nickname and PIN (roster) or choose a nickname (open).
3. Camera Playground opens with your class's lessons first. No e-mail, no app to install.

Tips for the first lesson:

- **Shared computers:** students press **Sign out** at the end. A browser that remembers another student shows "Signed in as ... – not you? Switch".
- **Forgotten PIN:** look it up in the roster.
- **Locked out** after too many wrong PINs: the roster shows a lock; press **Unlock**.
- The first start downloads the 3D scenes (see the Device Check): ask students to open the app before the lesson, or give the first five minutes to loading.

5. Point students at the right lessons

Open **Lessons** in the class:

- Pick **focus lessons**: they appear first for your students and as columns in your progress grid.
- **Copy a lesson link** (opens that lesson directly) or a quest link, or use the **Share to Google Classroom** button.
- Ready-made 45–60 minute plans: **Exposure**, **Light**, **Composition**.

6. Read the progress grid

Progress shows students × lessons:

- ✓ lesson completed (with the date when you hover),
- a **percentage** for the best quest score against Rio, the rival photographer,
- **exam**: best score and passed / not passed,
- **certificate** column when certificates are on.

Filter by track (Exposure, Light, Composition ...) or by your focus lessons. Use it at the start of a lesson to see who needs help, and at the end to see who finished.

7. Export to your gradebook

In **Progress**, press **Export gradebook (CSV)**. You get one row per student: nickname, lessons done, % of the course, each focus lesson (date done / quest best), quests average, exam best and passed, certificate code, last seen. It opens in Excel, Google Sheets or Numbers; paste the columns you need into your school's gradebook.

8. Certificates

In the class **Settings**, switch **Certificates** on. A student who passes the final exam ("Final exam: four client briefs") can type the name to print and print the certificate. In 13+ classes certificates are printable only; in adult classes they also get a verification page. School plans show your organisation's name and logo on the certificate.

9. At the end of the year

- **Archive** a class to hide it; **Delete** it (typed confirmation) to erase its students at once.
- If your licence ends, students can't sign in any more, but you can still see progress and export for 90 days. After that the data is deleted. We e-mail you 30 and 7 days before.

Questions: see [Support for Teachers](#) · support@360apps.net

Device Check – Will Camera Playground run in my classroom?

Do this **once, a few days before the first class**, on one device of each kind your students will use, on the **school network**. It takes about 10 minutes.

1. What Camera Playground needs

Need	Detail
Browser with WebGL 2	current Chrome, Edge or Firefox, or Safari 16.4 or newer (iPadOS/macOS). Hardware (graphics) acceleration switched on.
Internet	about 10–40 MB on the first visit (≈ 13 MB on a phone or tablet, ≈ 37 MB on a laptop, where the photography park loads in the background); more as students open other scenes and lesson books. Files are cached afterwards, so later visits load much less.
Storage	the browser must allow site storage (IndexedDB): photos and settings are kept in the browser. Guest mode or "clear on exit" deletes them.
Screen	laptops and desktops work best. Phones and tablets get a simplified layout.
Network access	360apps.net (all student pages, the app and its files come from this one domain, served through Cloudflare).

Class of 30 on one connection: $30 \times \sim 37 \text{ MB} \approx 1.1 \text{ GB}$ at the start of the first lesson. On a slow school line, ask students to open the join link once the day before, or give the first five minutes to loading.

2. The 5-minute test

- WebGL 2:** open <https://get.webgl.org/webgl2/> – you should see a spinning cube. If not, see section 4.
- Join:** open 360apps.net/join, enter your class code and a test student's nickname and PIN (add a test student "Test 01" to your roster; remove it afterwards: a test student who opened the app holds a seat for 30 days, so use it only once, or release the held place under Classes as the organisation's admin).
- First load:** note how long it takes until the studio appears: _____ seconds.
- Move around:** open the first lesson ("Your first exposure: filling the glass"), turn the dials, take three photos. Is it smooth? If it stutters: **Global settings** → **Preview quality: Quiet** (20 frames per second; Balanced is 30, High 60).
- Park:** open the photography park from the scene picker. Note the loading time: _____ seconds.
- Gallery:** open the gallery: are the three photos there? Close the tab, reopen: are they still there?
- Sign out,** and sign in again: does progress show the lesson as started/done?

3. "Will it run?" checklist

✓	Check	If it fails
☐	WebGL 2 cube shows	section 4
☐	360apps.net and its subpages open (no "blocked" page from the web filter)	ask IT to allow 360apps.net (including /join , /apps/camera-playground/ , /wp-json/xyz360/v1/)

✓	Check	If it fails
☐	The app finishes loading (no endless "Setting up the studio")	filter may block large files (.glb , .ktx2 , .wasm , .bin) or service workers: ask IT to allow them for 360apps.net
☐	Dials move smoothly in the studio	choose Quiet quality; close other tabs; plug laptops in (battery saving slows the graphics card)
☐	Park loads within about a minute	slower network: preload the day before
☐	Photos survive closing and reopening the tab	the browser deletes site data on exit (guest mode / policy): photos will not survive; progress still does
☐	Sign in → sign out → sign in again works	cookies blocked for 360apps.net: ask IT to allow them
☐	Sound is not needed	Camera Playground teaches with on-screen text; headphones are optional

4. Common fixes

- **"Your browser can't show 3D graphics"** (the app's own message): turn on hardware acceleration (Chrome/Edge: Settings → System → "Use graphics acceleration when available", then restart); update the browser; try without extensions. On managed school devices an **admin policy can block WebGL**: ask IT (Google Admin console for Chromebooks, MDM for iPads).
- **"The graphics card reset"**: reload; choose Quiet quality; close other 3D tabs. Saved photos are safe.
- **Very old laptops** (integrated graphics from before ~2017): may run only on Quiet, or not at all. Test before the lesson rather than during it.

5. Results by device type (fill in after testing)

Device	Browser / OS	WebGL 2	First load	Smooth on	Notes
Chromebook: _____	ChromeOS _____	☐	___ s	Quiet / Balanced / High	
iPad: _____	iPadOS _____, Safari	☐	___ s	Quiet / Balanced / High	
Laptop: _____	_____	☐	___ s	Quiet / Balanced / High	
Desktop: _____	_____	☐	___ s	Quiet / Balanced / High	

6. Text for your IT department

We will use Camera Playground (a browser-based photography simulator) in class. Please allow **https://360apps.net** (all paths) through the web filter, including large static files (.glb, .ktx2, .wasm, .bin, .webp, .pdf), service workers and cookies for that domain, and make sure WebGL is not disabled by device policy. Students sign in with a class code, nickname and PIN; no student e-mail or Google/Microsoft account is used. Expected traffic: about 40 MB per student on the first visit, much less afterwards.

Lesson Plan 1 – Exposure: bright, dark and the look you want

Length	60 minutes (45-minute version below)
Age	13+ (secondary, college, adult courses)
Track	Exposure (Foundations level)
Prior knowledge	none
Real-life frame	a friend needs a new profile picture; a kids' basketball club wants action photos for its website

Learning objectives

By the end, students can:

1. Make a correctly exposed photo by balancing the meter with **shutter speed, aperture and ISO** (S.A.I.).
2. Make two **equivalent exposures**: the same brightness with a different look (soft background vs. everything sharp).
3. Choose a shutter speed that **freezes** or **shows** movement, and fix the brightness afterwards.

Lessons used (set them as focus lessons)

Order	Lesson id	Title in the app	Guide	Time in app
1	exposure-triangle	Your first exposure: filling the glass	Needle	~15 min
2	shutter-motion	Freeze it or show it: the bouncing ball	Kick	~14 min
Fast finishers	iso-image-quality	ISO, the last setting: a party without flash	Needle	~12 min
Extension / homework	ev-concept-equivalency	Stops and EV: same brightness, many looks	Needle	~15 min
Homework (reading)	start-six-knowledges	The 6 knowledges behind every great photo	Frame	~15 min

Copy each lesson link from **Class** → **Lessons** → **Copy lesson link** (the link opens the lesson directly). Optional quest for the plenary: **Quest vs Rio** on `exposure-triangle` (same briefs, no hints, every capture graded).

Before the lesson (10 minutes, once)

- Run the **Device Check** on one student device in the room.
- Create the class, print login cards, set the focus lessons above.
- Ask students to open the join link once before the lesson (the first start downloads the 3D scenes).
- Have a glass of water and a jug ready (optional, for the starter).

Running order (60 minutes)

Time	Phase	What happens
0–5	Starter	Show two phone photos of the same scene: one too dark, one too bright. Ask: "What decides how bright a photo is?" Pour water into a glass: the light is the water, the photo is the glass. Too little = dark, too much = overflowing (blown highlights). Three taps fill it: Shutter (how long the tap is open), Aperture (how wide the tap is), ISO (how small the glass is).
5–8	Sign in	Students join with their cards (360apps.net/join), open the first focus lesson.
8–23	Lesson 1 exposure–triangle	Needle teaches the meter and S.A.I. with the profile-picture brief. Circulate: students who are stuck press Show me to see the guide do it. Watch for students who move all three settings at once: "change one, watch the meter, then the next".
23–38	Lesson 2 shutter–motion	The basketball brief: freeze the ball, then show the bounce with the player sharp. Key question to ask at desks: "You made the shutter faster. What happened to the brightness, and which other setting gets it back?"
38–48	Practice or quest	Most students: Quest vs Rio on exposure–triangle (no hints; it shows a score). Fast finishers: iso–image–quality. Students still on Lesson 2: finish it.
48–56	Plenary	Two or three students show the gallery : each photo keeps its shutter, aperture and ISO. Compare two equally bright photos with different looks: "What did you trade?" (e.g. f/2.8 at 1/500 vs f/8 at 1/60: three stops of aperture traded for three stops of shutter.)
56–60	Exit ticket	Three questions (below), on paper or in your LMS. Students press Sign out on shared computers.

45-minute version: skip the quest (38–48); set shutter–motion to finish as homework if needed.

Exit ticket (with answers)

1. Name the three settings that control how bright a photo is. → *Shutter speed, aperture, ISO.*
2. The ball is blurred and you want it frozen. What do you change first, and how do you keep the same brightness? → *A faster shutter speed; then open the aperture (smaller f-number) or raise ISO by the same number of stops.*
3. You want a soft, blurred background but the same brightness. What do you do? → *Open the aperture (e.g. f/8 → f/2.8) and make the shutter faster by the same number of stops.*

Checking progress

- **Progress grid:** ✓ on exposure–triangle and shutter–motion; quest score shows as a % (best attempt).
- **Gallery evidence:** students can restore a photo's settings from the gallery to show you how they made it.
- Use the CSV export to record "lesson done" and "quest best %" in your gradebook.

Differentiation

- **Support:** pair students; encourage **Show me** and the guide's hints; Lesson 1 only, with Lesson 2 next time.
- **Stretch:** ev–concept–equivalency (counting stops), then metering–modes ("Why white comes out grey: the 18% meter") or sam–modes ("S, A or M? Pick the mode for the moment").

Homework and the real world

- Read `start-six-knowledges` ("The 6 knowledges behind every great photo") in the app.
- With any phone or camera: take one photo of something moving, frozen, and one that shows the movement.
Most phone camera apps have a "Pro" or manual mode for shutter speed; otherwise use a burst for the frozen shot and a "long exposure" or "motion" mode for the blur. Bring both next lesson.

Vocabulary

exposure · meter · shutter speed · aperture (f-number) · ISO · stop · equivalent exposure · motion blur · noise

Lesson Plan 2 – Light: soft, hard and where it comes from

Length	60 minutes (45-minute version below)
Age	13+
Track	Light (Foundations → Core skills)
Prior knowledge	helpful: Lesson Plan 1 (Exposure); the guides re-explain the meter where needed
Real-life frame	a friend wants a portrait at noon in harsh sun; actor headshots and a band poster with one light

Learning objectives

By the end, students can:

1. Describe light by its **size, direction and colour**, and explain why a **bigger light makes softer shadows**.
2. Rescue a harsh midday portrait by finding **open shade** and **metering for the face**.
3. (Extension) Read where a light comes from by the **shadow of the nose**, and place a key light for a chosen mood.

Lessons used (set them as focus lessons)

Order	Lesson id	Title in the app	Guide	Time in app
1	light-fundamentals	Light is your new pencil (read a short part of the book, then practise)	Glow	~12 min
2	soft-hard-light	Soft or hard light?	Glow	~12 min
3	open-shade	Midday portrait? Find open shade	Sol	~12 min
Extension	light-direction	One light, five moods	Volt	~15 min
Next lesson	key-fill	Key and fill: friendly or dramatic	Volt	~15 min

light-fundamentals is a "Read + practice" lesson: students read a few illustrated pages, then the practice opens soft-hard-light. The app lists soft-hard-light as the lesson before open-shade and light-direction. Optional quest: **Quest vs Rio** on the soft/hard bays.

Before the lesson

- Set the focus lessons; copy the lesson links into your LMS or onto the board.
- Optional for the starter: a desk lamp or phone torch, and a sheet of white paper or a white umbrella.

Running order (60 minutes)

Time	Phase	What happens
0–6	Starter (unplugged)	Shine a phone torch at a volunteer's hand or a mug: sharp shadow. Now bounce the torch off a large white sheet: soft shadow. Ask: "Same light, same power. What changed?" (<i>The size of the light as the subject sees it.</i>) Ask where the softest light in this room is (usually a big window without direct sun).
6–9	Sign in	Students join and open light-fundamentals .
9–20	Lesson 1 light-fundamentals	Read the short part on seeing light; the practice continues straight into Glow's soft/hard bays. Prompt: "Describe the light on your screen in three words: size, direction, colour."
20–32	Lesson 2 soft-hard-light	Two bays, same subject, same power: a tiny flash and a big softbox. Students compare the shadow edges and measure them. Ask at desks: "Which would you choose for a friendly portrait? For a dramatic one?"
32–45	Lesson 3 open-shade	Sol's brief: a portrait at noon, the sun is brutal. Students step into the mouth of the park tunnel and meter for the face, not the bright background. Watch for students metering the sky: "What is the meter looking at?"
45–53	Practice	Fast finishers: light-direction (butterfly, loop, Rembrandt, side and rim). Others: finish Lesson 3, or the quest.
53–58	Plenary	Show two gallery photos: one in direct sun, one in open shade. "What happened to the shadows under the eyes? Why?" Then: "Where would you take a friend's portrait at school at lunchtime?"
58–60	Exit ticket	Below. Sign out on shared computers.

45-minute version: shorten the starter to 3 minutes, skip the practice block (45–53); **open-shade** can be homework.

Exit ticket (with answers)

1. Which gives softer shadows: a small light or a large light (as seen from the subject)? → *A large light; moving a light closer also makes it larger relative to the subject.*
2. The sun at noon gives your friend dark eye sockets. Name one fix without any equipment. → *Move into open shade (light from the open sky and the bright ground), and meter for the face.*
3. Why did the meter make the face too dark when the bright background was in the frame? → *The meter averages the scene; the bright background pulls the exposure down. Meter on the face, or compensate.*

Checking progress

- Progress grid: ✓ on the three focus lessons; quest % if used.
- Gallery: a direct-sun and an open-shade portrait side by side make good evidence for a sketchbook or portfolio annotation ("what I changed and why").

Differentiation

- **Support:** work in pairs; one student reads the guide's brief aloud, the other drives the camera; use **Show me**.
- **Stretch:** **light-direction**, then **inverse-square-law** ("Twice as far, a quarter of the light") and **key-fill**.

Homework and the real world

At home, photograph the same object (a mug, a fruit, a face with permission) three times: next to a window, under a ceiling light, and with a phone torch close to the side. Write one sentence for each: size, direction and colour of the light, and the mood it gives.

Vocabulary

hard light · soft light · shadow edge · light size · direction · open shade · reflector · metering · key light · rim light

Lesson Plan 3 – Composition: where to put things

Length	60 minutes (45-minute version below)
Age	13+
Track	Composition (Foundations → Core skills)
Prior knowledge	none (no exposure knowledge needed; the camera can stay in an automatic mode)
Real-life frame	a friend's travel blog on a city trip: where she is, who she is, what she's doing, how she feels

Learning objectives

By the end, students can:

1. Choose a **shot size** by what the photo must say (where, who, what, feeling) and avoid cutting people at the joints.
2. Use the **guide of thirds**: eyes on the top third line, room on the side the subject looks toward, and centre **on purpose** when a scene is symmetrical.
3. Keep **horizons level** and verticals straight, and tilt deliberately when they want verticals to soar.

Lessons used (set them as focus lessons)

Order	Lesson id	Title in the app	Guide	Time in app
1	framing-shot-sizes	Shot sizes: one moment, four frames	Frame	~14 min
2	guide-of-thirds	The guide of thirds: a friend in a square	Frame	~12 min
3	horizon-lines	Level horizons and straight verticals	Frame	~14 min
Extension	leading-lines	Leading lines down Palm Street	Frame	~15 min
Extension	negative-space	Negative space: room to breathe	Frame	~15 min
Homework (read + practice)	creativity-exercises	Creativity exercises	Frame	~10 min

The app lists `guide-of-thirds` before `negative-space` and `horizon-lines` before `leading-lines`. Optional quest: **Quest vs Rio** on `guide-of-thirds`.

Running order (60 minutes)

Time	Phase	What happens
0–5	Starter	Show four frames of one moment from a film or a news story: wide, full body, medium, close-up. Ask what each one tells you. Frame's line for the lesson: "Before you change a setting, change where you stand."
5–8	Sign in	Join, open <code>framing-shot-sizes</code> .

Time	Phase	What happens
8–22	Lesson 1 framing-shot-sizes	Four photos for Chloe's blog, wide to tight. Watch the joints: "Where did you cut her? Feet, knees, or mid-thigh?"
22–34	Lesson 2 guide-of-thirds	Eyes on the top third, room to look into, then centre on purpose in the symmetrical square. Ask: "When is the middle the right place?"
34–48	Lesson 3 horizon-lines	Level the horizon with the camera's roll, give the star two thirds, keep verticals straight, then tilt up on purpose.
48–54	Gallery walk	Students pick their best frame from today. In pairs, partner says one thing that works and one to try (use the vocabulary). Fast finishers have moved on to leading-lines or negative-space .
54–58	Plenary	Show two or three frames on the projector. "Which question does this photo answer: where, who, what or how she feels?"
58–60	Exit ticket	Below. Sign out on shared computers.

45-minute version: skip the gallery walk (48–54) and make **horizon-lines** homework.

Exit ticket (with answers)

1. Which shot size answers "Where is she?" → *A wide shot.*
2. With the guide of thirds, where do the eyes of a portrait usually go? → *On or near the top third line, with room on the side she looks toward.*
3. Give one reason to put a subject in the centre. → *The scene is symmetrical, or you want a calm, formal, direct look; done on purpose.*

Checking progress

- Progress grid: ✓ on the three focus lessons; quest % on **guide-of-thirds** if used.
- Composition is easy to evidence: students export their four shot sizes and annotate them (sketchbook, slide or LMS).

Differentiation

- **Support:** start with **framing-shot-sizes** only; let students turn on the thirds grid; **Show me** demonstrates the framing.
- **Stretch:** **leading-lines** (one-point perspective from a low, centred viewpoint), **negative-space**, then **frame-within-frame** ("Frame within a frame") and **symmetry-centre** ("Symmetry and centring with intent").

Homework and the real world

With a phone, photograph one friend or family member (with permission) in four shot sizes, in the same place, without zooming: walk. Then one photo where they are centred on purpose. Bring the five photos and say which question each one answers.

Vocabulary

shot size · wide · full body · medium · close-up · guide (rule) of thirds · room to look · symmetry · horizon · verticals
· leading lines · negative space

Standards Map – Camera Playground for Classrooms

How the nine tracks of Camera Playground support three curriculum frameworks. Camera Playground is a **practice environment**: it helps students learn and try technical and visual skills and gives you evidence of progress. It does **not** replace the assessed work these frameworks require, and the mapping below is our reading of the published objectives, not an endorsement by any exam board or agency.

Evidence labels: (checked) read on the official source in October 2026 · **(unconfirmed)** from a secondary source: check it before relying on it · **(our reading)** our interpretation.

The course at a glance (64 lessons, 9 tracks, final exam)

Track	Lessons	What students practise	Example lessons
Start here	2	the big picture, holding the camera steady	start-six-knowledges , handheld-sharpness
Exposure	11	shutter, aperture, ISO, stops/EV, modes, metering, histogram, compensation, measuring light	exposure-triangle , metering-modes , exposure-recovery-challenge
Focus & lenses	6	depth of field, focus modes, stabilisation, testing lenses	depth-of-field , focus-modes , lens-lab
Composition	9	shot sizes, thirds, horizons, lines, space, symmetry, framing	guide-of-thirds , leading-lines , negative-space
Light	15	soft/hard, direction, inverse-square law, key/fill, multi-light studio, gobos, TTL vs manual flash, flash + ND	soft-hard-light , light-direction , three-light-portrait
Colour	6	white balance, gels, colour theory and schemes	white-balance-lab , color-gels-portrait
Motion & night	5	freezing, panning, long exposure, light painting, night scenes	panning , light-painting , fairground-night
Real-life projects	3	complete jobs: a headshot session, product photos, the final exam	portrait-photography , product-photography , course-exam
Gear & buying	7	camera features, sensors, lens names, flash triggers, adapters (reading)	lens-names-and-choice , sensor-inside

50 lessons are guided practice in 3D, 6 combine reading and practice, 8 are reading. Every guided lesson has a **quest** (same briefs, no hints, graded). The **final exam** ("Final exam: four client briefs") leads to an optional certificate. Source: the app's course file (October 2026).

1. England – AQA GCSE and A-level Art and Design (Photography)

Assessment objectives (each 25 % of the qualification) (checked):

AO	GCSE wording (AQA 8201 family)	A-level wording (AQA 7201 family)
AO1	Develop ideas through investigations, demonstrating critical understanding of sources.	Develop ideas through sustained and focused investigations informed by contextual and other sources, demonstrating analytical and critical understanding.
AO2	Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.	Explore and select appropriate resources, media, materials, techniques and processes, reviewing and refining ideas as work develops.
AO3	Record ideas, observations and insights relevant to intentions as work progresses.	Record ideas, observations and insights relevant to intentions, reflecting critically on work and progress.
AO4	Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language.	Present a personal and meaningful response that realises intentions and, where appropriate, makes connections between visual and other elements.

AQA's GCSE Photography content lists photographic techniques "for example: lighting, viewpoint, aperture, depth of field, shutter speed and movement ..." (checked). Title codes: GCSE Photography **8206**, A-level Photography **7206** (unconfirmed).

Camera Playground	Supports	How (our reading)
Exposure, Focus & lenses, Motion tracks	AO2 (main fit)	experimenting with aperture, depth of field, shutter speed and movement, ISO – the techniques named in the specification – and comparing results
Light, Colour tracks	AO2 , AO3	controlled experiments with lighting quality, direction, ratios and colour that are hard to set up with real kit in a classroom
Composition track	AO2 , AO4 (visual language)	viewpoint, framing, shot size and space as visual language
Gallery (each photo keeps its settings), lighting schematic export	AO3	students record and annotate what they changed and why
Real-life projects, quests	AO2 , AO4 (partly)	working to a brief and refining after feedback
Contextual study (photographers, sources)	AO1 – limited	the app does not teach photographers' work; pair it with your own contextual research

Note on coursework authenticity (our reading): images made in a simulator are practice and planning evidence. Whether and how they may appear in a portfolio or the externally set assignment is your centre's decision under the exam board's and JCQ's rules; students' final outcomes should be their own photographs. Check with AQA before advising students.

Sources: AQA GCSE Art and Design scheme of assessment, <https://www.aqa.org.uk/subjects/art-and-design/gcse/art-and-design-8201/specification/scheme-of-assessment> ; AQA GCSE Photography subject content, <https://www.aqa.org.uk/subjects/art-and-design/gcse/art-and-design-8201/specification/subject-content/photography> ; AQA A-level Art and Design scheme of assessment, <https://www.aqa.org.uk/subjects/art-and-design/a-level/art-and-design-7201/specification/scheme-of-assessment>

2. United States – National Core Arts Standards (Media Arts) and CTE

NCAS anchor standards (11, in four artistic processes) (checked: anchor list). Media Arts performance standards use codes such as **MA:Cr1.1.HSI** (Media Arts, Creating, anchor 1, high school "Proficient"); the grade-level wording was not checked (unconfirmed).

Anchor standard	Camera Playground	Fit (our reading)
1 Generate and conceptualize artistic ideas and work	briefs in the projects track and the exam (a client brief → an idea)	partial
2 Organize and develop artistic ideas and work	planning a shot: shot size, light placement, settings	good
3 Refine and complete artistic work	quests and graded briefs: try, get feedback, refine	good
5 Develop and refine artistic techniques and work for presentation	exposure, focus, light, colour and motion techniques	strong
4, 6 Select / convey meaning through presentation	gallery selection and export for critique	partial
7 Perceive and analyze artistic work	comparing equivalent exposures, shadow edges, shot sizes	good
9 Apply criteria to evaluate artistic work	graded briefs make the criteria explicit (exposure within a stop, eyes sharp, framing)	good
8, 10, 11 Interpret intent; connect to personal experience and context	real-life framing of each lesson (a friend's portrait, a club's website)	limited; add your own discussion

Career and Technical Education (CTE): in the older National Career Clusters Framework, photography sits in **Arts, A/V Technology & Communications** (pathways include "A/V Technology & Film" and "Visual Arts") (unconfirmed). Advance CTE's modernized framework (2024) uses **Arts, Entertainment & Design**, with media work under a media production sub-cluster (unconfirmed). State standards differ (for example California's Arts, Media and Entertainment model curriculum standards (unconfirmed)); map to your state's photography or digital media course standards. Typical fits (our reading): camera operation and exposure control (Exposure, Focus tracks), lighting set-ups (Light track), client briefs and professional workflow (Real-life projects), equipment knowledge (Gear & buying).

Sources: NCAS anchor standards, <https://nationalartsstandards.org/node/425> ; Media Arts at a Glance, <https://www.nationalartsstandards.org/sites/default/files/2021-11/Media%20Arts%20at%20a%20Glance.pdf> ; New Jersey CTE cluster page (older framework), <https://www.nj.gov/education/cte/secondary/clusters/arts.shtml> ; California AME standards (docx), <https://www.cde.ca.gov/Ci/ct/sf/documents/cteadmcs.docx> ; Advance CTE: <https://careertech.org> (unconfirmed).

3. Netherlands – MBO kwalificatiedossier (Fotograaf)

The MBO qualification **Fotograaf** (level 4) belongs to the kwalificatiedossier **AV-productie** (unconfirmed). Recent S-BB documents list crebo **25718** for Fotograaf (2022 version); older certificate supplements list 90076 and 25195 (unconfirmed: check the current dossier on kwalificatiesmbo.nl). Core tasks found in the public summaries include developing a concept or plan for a client, realising image and light, and managing equipment (unconfirmed).

Kerntaak / werkproces (summary) (unconfirmed)	Camera Playground	Fit (our reading)
Concept or plan for a client (opdracht)	Real-life projects and exam: client briefs with technical requirements	partial (practice of briefs, not client contact)
Realising the image: camera, light	Exposure, Focus, Light, Colour, Motion tracks	strong for technical practice
Managing/choosing equipment	Gear & buying track, Lens Lab, 130+ bodies and 140+ lenses	good (knowledge, not maintenance)
Organisational and entrepreneurial tasks	–	not covered

Use the CSV export and certificates as supporting evidence in a student's portfolio (*bewijsmap*); the examination of the qualification stays with the school's own exam instruments.

Sources: S-BB certificate supplement "Fotograaf" (2015), <https://s-bb.nl/media/25rh4are/fotograaf-25195-1516-nl-juli2015.pdf> ; S-BB (2016), <https://www.s-bb.nl/media/wsrl4zna/fotograaf-90076-1213-nl-jul2016.pdf> ; current dossiers: <https://kwalificatiesmbo.nl> (unconfirmed).

How to use this map

1. Pick the objective you are teaching (e.g. AQA AO2, NCAS anchor 5).
2. Set the matching lessons as **focus lessons** for the class.
3. Use the progress grid and CSV export as evidence of practice; use the gallery and schematic exports for students' annotations and reflections.
4. Follow up with real cameras or phones: each lesson plan ends with a real-world task.

Support for Teachers

How to reach us

- **E-mail:** support@360apps.net – put "Classroom" and your organisation name in the subject.
- **Privacy and data requests:** privacy@360apps.net
- **When:** we answer by e-mail on Dutch working days (Monday–Friday, Central European Time). 360APPS is a small company: there is no phone line or live chat.
- **Pilots and quotes:** use the form on 360apps.net/camera-playground/schools/.

Please include: your organisation and class name, what you tried, what you saw (a screenshot helps), the device and browser, and for a student problem the **nickname only** (never a student's real name, and never send PINs by e-mail).

Solve it yourself first (most questions take one click)

Problem	Fix
A student forgot their PIN	Class → Roster → Show PIN
A student is locked out	it ends by itself (15 minutes after 10 wrong PINs, longer after more); or Roster → Unlock , or Unlock all for the class
"Class is full"	remove students who left (names nobody uses free their seat at once); seats of students who used the app come back 30 days after their first use (the roster shows the date); org admins can Release held places ; or ask us for more places
A student can't join	is the class Open or Roster ? Open joining closes after 14 days, or after too many new accounts in one hour (the class page says so): reopen it. Is the code typed right? Are you signed in as the teacher on that device? Sign out first.
Wrong student on a shared computer	the join page shows "Signed in as ... – not you? Switch "; remind students to Sign out
The 3D view does not start	see the Device Check
It runs slowly	Global settings → Preview quality → Quiet

FAQ for teachers

Do students need an e-mail address or a Google/Microsoft account? No. They join with the class code, a nickname and a PIN. Single sign-on (Google, Microsoft) and LMS integrations (LTI) are not available yet.

How old must students be? 13 or older. Classes with younger students need a Data Processing Agreement signed by the school first (ask us).

What do you store about my students? A nickname, an encrypted PIN, class membership, lesson progress, quest and exam results, and the certificate name if a student prints one. No e-mail, birth date or photos: photos stay on the student's device. Details: Privacy Notice for Schools.

Can I see each student's work? You see progress per lesson (done, quest score, exam). The photos students take stay in their own browser; ask them to export their best ones and hand them in through your usual channel.

Can I use it with my LMS (Google Classroom, Teams, Moodle, Canvas)? Yes, as links: copy a class join link or a lesson link and post it as an assignment or material; there is a Share to Google Classroom button. Grades are not sent back automatically; use the CSV export.

How do seats work? One seat per active student, however many of your classes they are in. Remove students who leave; a student who has used the app keeps the seat used until 30 days after their first use, so you can rotate groups through the year. Accounts that never opened the app free their seat at once, and your organisation's admin can release held seats.

What happens when my trial or licence ends? Students can no longer sign in. You keep read-only access and CSV export for 90 days; then everything is deleted. We e-mail you before that. If you buy or renew in time, everything continues where it stopped.

Prices, renewal and refunds? They are set out in your quote or order form. Ask us with the form on the schools page.

My school pays by purchase order. Is that possible? Yes: request a quote; we send a PDF quote valid for 60 days; send us a PO; we invoice with payment within 30 days by bank transfer or card.

Can I add other teachers? On the School plan, yes: send us their 360APPS account e-mails and we attach them. The Classroom plan is for one teacher.

Can my school's logo appear in the app? On the School and Custom plans: your name and logo appear in the app header and on certificates. Upload them only if your organisation allows it.

Are the certificates a qualification? No. A certificate shows that a student completed the Camera Playground course and passed its final exam in the simulator.

Does it work offline? It needs an internet connection to sign in and save progress. If the connection drops briefly, progress is kept on the device and sent later.

Which languages? The app interface is available in 14 languages; the teacher pages and these materials are in English.

Is there a Mac app for our lab? Ask for it with your quote: we can add lab licences for the Mac app.

Is it accessible? The teacher and join pages are designed for WCAG 2.1 AA; the 3D viewport has limits. See the Accessibility Statement.

Who makes Camera Playground? 360APPS, a small software company in the Netherlands, with photographer and teacher Daniel Farjoun, who has taught photography online since 2013.