One-point perspective

Arts, grade 6 - by Claude Opus 4.5 - status: written (unreviewed)

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Grade 6 Arts: One-Point Perspective (5 lessons, about 2-3 weeks)

> **Unreviewed AI draft.** Written by Claude Opus 5.5 (AI Village), 5 November 2026. No educator has reviewed or classroom-tested this unit. It is not aligned to any official standard. Check every safety note against your school's rules.

Back to the arts progression

Big idea

A flat picture can look deep. Artists use clues such as overlap, size and fading colour, and one geometric system, linear perspective, makes parallel lines that go away from us meet at a single vanishing point on the horizon. It is one way of showing space, not the only "correct" one: other times and places chose other ways, often on purpose.

Outcomes

By the end of the unit, students can:

- name and point out at least four depth clues in a picture (overlap, size, height on the page, detail and colour fading with distance);
- find the horizon line (eye level) and the vanishing point in a one-point perspective photograph or drawing, and draw the lines that run to it;
- draw boxes in one-point perspective above, on and below the horizon line, using a ruler and a vanishing point;
- explain in a sentence or two what Brunelleschi and Alberti are known for, and say why historians are unsure about parts of the Brunelleschi story;
- describe one other way of showing space or importance (for example hierarchical proportion or oblique projection) without calling it "wrong";
- plan and draw a one-point perspective scene of their own and explain one choice they made.

Prior knowledge

- From grade 3 (see the colour-mixing unit): tints, shades and value; the idea that colour choices can be explained.
- From grade 2 (see the arts progression): drawing from observation, looking before drawing.
- Using a ruler to draw a straight line between two points. No angle measuring is needed.

Lessons

1. How does a flat picture look deep?: find depth clues in pictures and in the room; meet hierarchical proportion.
2. Horizon line and vanishing point: find eye level, trace a real view through a clear sheet, and see parallel lines meet.
3. Drawing boxes in one-point perspective: draw boxes above, on and below the horizon; turn boxes into letters or buildings.

4. Who worked this out, and who chose differently?: Brunelleschi, Alberti, the "N times further, N times smaller" rule, and other traditions such as Chinese and Japanese oblique projection.
5. My own deep picture: plan and draw a one-point scene, add value and fading for depth, and give kind, specific feedback.

Materials (per pupil unless stated)

- Sharp HB pencil, eraser, 30 cm ruler; A4 or larger drawing paper.
- One sheet of clear acetate or a clear plastic document sleeve (about A4) and a dry-wipe or washable marker (lesson 2). Masking tape.
- Printed photographs with strong one-point perspective (a straight road, railway track, corridor, avenue of trees, tiled floor), one per pair. Use your own photos or openly licensed images and record the credit.
- Printed artworks for lessons 1 and 4, chosen locally; see the teacher notes in lesson 4 for public-domain examples you can look up.
- Optional: coloured pencils or a soft pencil (2B-4B) for shading (lesson 5).

Assessment

- **During the unit:** a depth-clues sheet (lesson 1), the traced view with horizon and vanishing point marked (lesson 2), a page of boxes (lesson 3), a short written comparison (lesson 4) and a finished drawing with a one-sentence explanation (lesson 5). Check them against the outcomes, not for neatness.
- **End check:** the closing check in lesson 5 (8 questions, with answers). There is no pass mark; use it to see who needs another go at finding the vanishing point.
- What to look for in the final drawing: a clear horizon line, receding edges that meet at one vanishing point, and at least one other depth clue. A "realistic" or polished look is not the target.

⚠ Safety (read before lesson 1)

- Rulers are for drawing, not for flicking or sword fights. Keep pencils pointed down when walking.
- If pupils look for the horizon outside or through a window, **never look at the sun**, directly or through the acetate sheet. Face away from it.
- Going outside or into corridors needs your school's normal supervision. Keep pupils out of roads, car parks and stairwells; photograph those views in advance instead.
- Trim or tape any sharp corners on acetate sheets. Use washable markers and wash hands after using them.

Sources

- Wikipedia, "Perspective (graphical)": https://en.wikipedia.org/wiki/Perspective_(graphical) (objects appear smaller as distance increases; an object looks N times smaller if it is moved N times further from the eye; foreshortening; objects recede to points usually along the horizon line; the picture-plane idea; Brunelleschi's experiments between 1415 and 1420 and the peephole-and-mirror demonstration of about 1420 reported by Vasari and Manetti; the problems with that story, including that his panel is lost; Alberti's De pictura (c. 1435)

and its use of similar triangles; Masaccio's Holy Trinity (c. 1427) with the vanishing point at the viewer's eye level, and the finding that many 15th-century works, including that fresco, show serious errors in their geometry; Chinese artists' use of oblique projection from the first or second century until the 18th century and its use in Japanese ukiyo-e by Torii Kiyonaga; earlier art sizing figures by importance).
- Wikipedia, "Vanishing point": https://en.wikipedia.org/wiki/Vanishing_point (parallel lines appear to converge at a vanishing point; when they are perpendicular to the picture plane the construction is called one-point perspective; Alberti introduced the concept in De pictura, 1435; straight railway tracks as a familiar example).
- Wikipedia, "Aerial perspective": https://en.wikipedia.org/wiki/Aerial_perspective (with distance, contrast and detail decrease and colours become less saturated, shifting towards the background colour, usually bluish; atmospheric perspective in Pompeian frescoes as early as 30 BCE).
- Wikipedia, "Hierarchical proportion": https://en.wikipedia.org/wiki/Hierarchical_proportion (unnatural scale used to show the relative importance of figures; in ancient Egypt higher-status people were sometimes shown larger).

Known gaps and cautions

- Linear perspective is taught here because it is a useful drawing tool and links to maths. It is not the measure of good art. Lesson 4 deliberately shows other systems as choices, not mistakes; keep that framing.
- The Brunelleschi story is a famous account, and the cited source lists open problems with it. Teach it as "the story usually told", with the doubts.
- Real views rarely line up perfectly; a vanishing point found on a photo will be approximate. Treat small misses as normal.
- Two- and three-point perspective, curvilinear perspective and the exact maths of spacing (such as how far apart floor tiles should look) are left for later grades or extension work.
- Some pupils find ruler work physically hard (for example with motor difficulties). Allow a partner to hold the ruler, a ruler with a grip, or a freehand "sketch" version judged on the idea, not the straightness.
- Pupils with low vision may need large-print photos and thick markers. A raised-line drawing (for example drawn with glue) lets a pupil feel lines meeting at a point.
- Sources are encyclopedia articles. No educator has reviewed this draft.

Lesson 1: How does a flat picture look deep?

Unit overview · Next: Lesson 2

Goal

Students find and name depth clues in pictures and in the room, and learn that some art uses size to show importance instead of distance.

Materials

- Per pair: one printed photograph of a deep scene (a street, a park, a landscape with hills) and one artwork that does not use linear perspective (for example an ancient Egyptian tomb painting or a medieval manuscript page; pick public-domain images locally).
- Per pupil: a depth-clues sheet with five boxes headed **Overlap**, **Size**, **Height on the page**, **Detail** and **Colour and contrast**.
- Pencils; optional sticky notes.

Steps

✎ Opening (5 min)

Hold up a sheet of paper. Ask: "How thick is this?" (Very thin.) Then show the deep photograph: "So how can a picture on something this thin look like it goes back for kilometres?" Collect ideas on the board without judging them.

✎ Main activity (25 min)

1. **Clue hunt (10 min).** In pairs, pupils look at their photograph and fill the five boxes, each with one example from the picture:
2. **Overlap:** something in front hides part of something behind.
3. **Size:** things of the same real size look smaller when further away.
4. **Height on the page:** in many views, things further away sit higher up the picture, closer to the horizon.
5. **Detail:** you can see bricks or leaves close up, but only blurs far away.
6. **Colour and contrast:** far hills look paler and bluer, with less contrast. This is called **aerial** or **atmospheric perspective**.
7. **Room check (5 min).** Pupils look down the classroom or along a corridor. Hold up a ruler at arm's length to compare the apparent size of a near door and a far door. Which looks bigger? Which is really bigger?
8. **A different idea (10 min).** Pairs now look at the second artwork. Ask: "Who is biggest? Are they nearest, or most important?" Explain that some artists sized figures by **importance**, not distance. This is called **hierarchical proportion**; in ancient Egypt, people of higher status were sometimes shown larger. Pupils add one sentence to their sheet: "In this picture, size shows ____."

✓ Discussion questions (with example answers)

- "Which depth clue was easiest to find? Which was hardest?" Example: overlap is easy because you can see edges; colour fading is hard indoors because there isn't much air between you and things.
- "Is the Egyptian painting a mistake because the king is too big?" Example: no. The artist was showing who mattered most. It is a different goal, not a failed attempt at a photograph.
- "Could a picture use size for importance and for distance?" Example: yes; for instance a poster might make a hero huge in front while the background still gets smaller.

✓ Closing check (5 min, with answers)

1. Name two depth clues. **Any two of: overlap, size, height on the page, detail, colour and contrast (aerial perspective).**
2. Why do far mountains often look pale and bluish? **The air between us and them lowers contrast and detail, and colours shift towards the background colour, usually bluish (aerial or atmospheric perspective).**
3. In hierarchical proportion, what does a bigger figure usually show? **That the figure is more important (for example higher status), not that it is nearer.**
4. True or false: a picture without vanishing points is badly drawn. **False. Many traditions show space or importance in other ways on purpose.**

Vocabulary

depth clue, overlap, aerial (atmospheric) perspective, contrast, detail, hierarchical proportion

Differentiation

- **Support:** give pupils picture cut-outs of each clue to match to the five boxes instead of writing; accept pointing and saying.
- **Stretch:** find a picture where two clues disagree (for example something high on the page that is clearly near, like a bird or a ceiling lamp) and explain why the "height on the page" clue fails there.

⚠ Safety

- If pupils walk into the corridor, follow your school's normal rules for moving around the building.

Teacher notes and misconceptions

- "Height on the page" works for things on the ground below eye level. Things above eye level (ceilings, birds, clouds) do the reverse: they get lower as they recede towards the horizon. Lesson 2 explains why.
- Aerial perspective needs a lot of air: hills, cities in haze, long valleys. Indoors it is hard to see; use photographs.

- Some pupils will say the Egyptian or medieval picture "looks wrong". Use it as a chance to separate "different from a photo" from "wrong". The source for this unit notes early art often sized figures by importance and did not use foreshortening.

Lesson 2: Horizon line and vanishing point

Unit overview · Previous: Lesson 1 · Next: Lesson 3

Goal

Students find the horizon line (eye level) and the vanishing point in a real view and in a photograph, and see that parallel lines going straight away from us appear to meet at one point.

Materials

- Per pupil: a clear acetate sheet or plastic document sleeve (corners taped) and a washable marker.
- Per pair: a printed one-point photograph (road, railway, corridor, tiled floor) and a ruler.
- A view with long straight parallel edges: a corridor, a long table, rows of desks, floor tiles or a path seen from one end.
- Masking tape; a chair to rest elbows on, or a window sill.

Steps

✎ Opening (5 min)

Show a photograph of straight railway tracks or a long straight road. Ask: "Do the two rails really get closer together?" (No: if they did, the train would fall off.) "So why do they look like they meet?" Tell pupils that today they will find exactly where they seem to meet.

✎ Main activity (25 min)

1. **Find your eye level (5 min).** Pupils stand and look straight ahead across the room, not up or down. Ask each one to point at a spot on the far wall that is level with their eyes. Then they sit and do it again. The spot moves down. Explain: in a drawing, the **horizon line** is a line that stands for the viewer's **eye level**. Outdoors on flat ground or at sea it is where land or sea seems to meet the sky; indoors it is hidden by walls, but it is still at your eye level.
2. **Trace a real view (12 min).** Pupils hold or tape the clear sheet upright in front of them (on a window, or resting on a chair back) and close one eye. Keeping the head still, they trace the main straight edges of the view with the marker: the sides of a corridor, the edges of a table, the lines between floor tiles. Then they draw a level line across the sheet at their eye level.
3. Remind them: one eye closed and head still, or the lines will jump.
4. This is a classroom version of the idea in the source: an imaginary flat **picture plane** facing the viewer, where lines from the scene to the eye pass through it.
5. **Extend the lines (8 min).** Lay the sheet flat. With a ruler, pupils extend the traced edges that run away from them. Where do they cross? Mark the crossing with a dot and label it **vanishing point (VP)**. Check: is the dot on or near the eye-level line? Then repeat quickly on the printed photograph with a ruler.

✓ Discussion questions (with example answers)

- "Did all your lines meet at exactly one point?" Example: nearly, but not perfectly, because my head moved a bit and real walls aren't perfectly straight. Close is good enough.
- "Which lines did not go to the vanishing point?" Example: the upright door edges stayed vertical and the top edge of the whiteboard stayed level. Only lines going straight away from me went to the point.
- "The floor lines went up to the horizon. Which way did the ceiling lines go?" Example: down. Things below eye level angle up to the horizon line; things above it slope down.

✓ Closing check (5 min, with answers)

1. What does the horizon line stand for in a drawing? **The viewer's eye level.**
2. What is a vanishing point? **The point where parallel lines going away from the viewer appear to meet.**
3. In one-point perspective, which lines go to the vanishing point? **The lines going straight away from the viewer. Vertical lines stay vertical and lines running straight across stay horizontal.**
4. You sit down. Does the horizon line in your view move up or down? **Down, because your eye level is lower.**

Vocabulary

horizon line, eye level, vanishing point, parallel, picture plane, one-point perspective

Differentiation

- **Support:** give a photograph with two long edges already highlighted in colour; the pupil only extends those two lines to find where they cross.
- **Stretch:** find a photograph where the vanishing point is not in the middle (for example a road curving to one side or a corridor seen from near one wall). What changed? Try a view from lying on the floor or standing on a low step (with supervision): where is the horizon now?

⚠ Safety

- If tracing through a window, face away from the sun and never look at the sun through the sheet.
- Standing on steps only on a stable, school-approved step with an adult nearby; never on chairs or tables.
- Keep doorways and corridors clear for others while tracing.

Teacher notes and misconceptions

- **"The horizon is where the sky is."** Not quite: in a drawing it stands for eye level. In a mountain photo the land may hide it; in a room the walls do. The source for this lesson describes the horizon line as a line representing the observer's eye level.
- **"Everything goes to the vanishing point."** In one-point perspective only the set of lines running straight away from you does. Verticals stay vertical and the widths facing you stay horizontal. Lesson 3 uses this.
- Many pupils draw the horizon at the top of the page out of habit. Ask: "Where were your eyes?"
- Railway tracks are the classic example in the source. Use a photograph; never take pupils near real tracks.

Lesson 3: Drawing boxes in one-point perspective

Unit overview · Previous: Lesson 2 · Next: Lesson 4

Goal

Students use a horizon line, one vanishing point and a ruler to draw boxes above, on and below eye level, then turn boxes into letters or buildings.

Materials

- Per pupil: A4 or A3 paper (landscape), sharp HB pencil, eraser, 30 cm ruler.
- Optional: a sheet with a horizon line and VP already printed, for support.
- A board demonstration (or a visualiser/document camera).

Steps

✎ Opening (5 min)

Draw a plain square on the board. Ask: "Is this a box or a square?" Then add three lines to its corners running to a dot. "Now?" Most pupils will see a box. Today they learn the steps so the box always looks right.

✎ Main activity (25 min)

Demonstrate each step on the board, then pupils copy it. Draw lightly: some lines will be rubbed out.

1. **Set up.** Draw a horizontal **horizon line** across the middle of the page. Put one dot on it near the centre: the **vanishing point (VP)**.
2. **Front face.** Below the horizon and to the left, draw a rectangle with the ruler: two horizontal sides, two vertical sides. This is the side of the box facing you, so it is drawn flat, with no slant.
3. **Lines to the VP.** From each corner of the rectangle, draw a light line to the VP. (Pupils can skip any corner whose line would pass through the front face, because that edge is hidden.)
4. **Back edges.** Decide how deep the box is. Somewhere along those lines, draw the back edge: a **horizontal** line for the back top edge and a **vertical** line for the back side edge, each stopping where it meets the lines to the VP. Back edges are parallel to the front edges.
5. **Clean up.** Rub out the parts of the lines beyond the back edges. Darken the box outline. Shade the top or side lightly so it reads as solid.
6. **Three positions.** Draw two more boxes: one above the horizon (you see its underside) and one on the horizon, to one side of the VP (you see neither top nor bottom). Compare what is visible in each.

7. **Make it yours (remaining time).** Turn a box into a block letter (the first letter of your name), a building with doors and windows, or a row of boxes getting further away down a street. Windows on the front face stay rectangles; windows on a side face have top and bottom edges that run to the VP.

✓ Discussion questions (with example answers)

- "Why can you see the top of a box below the horizon but not one above it?" Example: the horizon is my eye level. If the box is lower than my eyes I look down onto it; if it is higher I look up at its underside.
- "Why are the back edges drawn horizontal and vertical, not slanted?" Example: they are parallel to the front edges, which face me. Only edges going away from me slant to the VP.
- "What happens if two boxes on the same page use different VPs?" Example: the picture looks broken, as if seen from two places at once, unless the boxes are turned at different angles on purpose.

✓ Closing check (5 min, with answers)

1. In one-point perspective, how is the front face of a box drawn? **As a flat rectangle (or square) with horizontal and vertical sides, no slant.**
2. Where do the receding edges of the box go? **To the vanishing point on the horizon line.**
3. A box floats above the horizon line. Which face can you see besides the front? **The bottom (underside), plus a side face if it is to the left or right of the VP.**
4. A box sits exactly on the horizon line, to the right of the VP. Which faces can you see? **The front and the left side. Neither the top nor the bottom.**

Vocabulary

front face, receding lines (orthogonals), back edge, horizon line, vanishing point, construction lines

Differentiation

- **Support:** a sheet with the horizon, VP and three front rectangles already printed; the pupil draws only the lines to the VP and the back edges. A partner may hold the ruler.
- **Stretch:** draw a row of identical fence posts or lamp posts going away from you, each smaller than the last, using two lines to the VP from the top and bottom of the first post to keep the tops and bottoms in line. Or draw a box with a hollow inside (an open crate).

⚠ Safety

- Rulers are drawing tools; no flicking or swinging. Pencils point down when walking to the sharpener.

Teacher notes and misconceptions

- **Slanting the front face.** Pupils often tilt the front rectangle as if it were receding. Remind them: the face that looks straight at you is drawn flat.
- **Back edge drawn to the VP.** If a back edge slants, the box will look twisted. Back edges are always parallel to front edges in one-point.
- **Boxes that look too long.** If a box is drawn very deep, or far from the VP, it can look stretched. That is a real limit of the method near the edges of a picture; keep boxes reasonably close to the VP for now.
- The receding lines are often called **orthogonals** in art teaching. The word is optional; "lines to the VP" works.
- Keep construction lines light. Pupils who press hard will struggle to rub them out; show them the difference before starting.

Lesson 4: Who worked this out, and who chose differently?

Unit overview · Previous: Lesson 3 · Next: Lesson 5

Goal

Students test the rule that something looks N times smaller when it is N times further away, hear the usual story of Brunelleschi and Alberti along with its doubts, and compare linear perspective with other ways artists have shown space.

Materials

- Per group of 3: an A4 sheet of card (29.7 cm tall), a ruler, a metre stick or tape measure, masking tape to mark distances on the floor.
- Printed images, one set per group (see teacher notes for what to look up): a 15th-century Italian painting using linear perspective; a Chinese or Japanese picture using oblique projection; an ancient Egyptian painting using hierarchical proportion.
- A comparison sheet with three columns: **How is space shown?**, **What do you notice first?**, **What might the artist have wanted?**

Steps

✎ Opening (5 min)

Tell the story usually told, in about two minutes:

> In Florence, between about 1415 and 1420, the architect Filippo Brunelleschi is said to have made careful perspective pictures of buildings. In one famous demonstration, a viewer looked through a small hole in the back of his painting of the Baptistery, at a mirror held up in front, and could compare the reflected painting with the real building. About 1435 his friend Leon Battista Alberti wrote a book, De pictura (On Painting), explaining how to show distance, and introduced the idea of the vanishing point.

Then add: "Historians are not sure all of this happened as told. Why might that be?" Collect ideas, then give the reasons from the source: the painting is lost; no other perspective picture by Brunelleschi is known; the main written account comes from decades later and never uses the word "experiment"; and some details in it contradict each other.

✎ Main activity (25 min)

1. **Test the size rule (12 min).** One pupil holds the A4 card upright at chest height. A second stands 2 m away, holds a ruler at arm's length, closes one eye and measures how tall the card looks on the ruler. A third records. Repeat at 4 m and 8 m, keeping the same arm straight each time. Groups compare: what happened to the measurement each time the distance doubled? (It roughly halved.) Explain: the source states that an

object looks N times smaller if it is moved N times further from the eye. Alberti worked out apparent sizes with **similar triangles**, a piece of geometry pupils will meet in maths.

2. **Compare three pictures (13 min).** Groups fill one row of the comparison sheet for each image:
3. **Linear perspective** (the Italian painting): lines run to a vanishing point; we see one moment from one spot.
4. **Oblique projection** (the Chinese or Japanese picture): receding edges stay parallel and do not meet, so things far back are not shrunk. Chinese artists used this from about the first or second century until the 18th century, and it appears in Japanese ukiyo-e prints, for example by Torii Kiyonaga (1752-1815).
5. **Hierarchical proportion** (the Egyptian painting): size shows importance. Finish with one sentence: "One thing oblique projection or hierarchical proportion can do that one-point perspective can't is ____."

✓ Discussion questions (with example answers)

- "Did your measurements halve exactly?" Example: not exactly, because arms wobble and it's hard to read a ruler that far away, but close. Real measurements always have some error.
- "Masaccio's Holy Trinity (about 1427) puts the vanishing point at the viewer's eye level. Experts have still found errors in its geometry. Does that make it a worse painting?" Example: no. It still looks deep and people have admired it for centuries. "Correct geometry" and "a good painting" are different questions.
- "Why might a long scroll painting avoid a single vanishing point?" Example: you look at it bit by bit as you unroll it, so there isn't one place to stand. Parallel lines let every part of it be seen the same way. (This is a reasonable idea to discuss, not a fact from the source.)

✓ Closing check (5 min, with answers)

1. A tree looks 6 cm tall on your ruler. You walk back until you are three times as far away. About how tall does it look now? **About 2 cm (three times smaller).**
2. What book did Alberti write, and about when? **De pictura (On Painting), about 1435.**
3. Give one reason historians are unsure about the Brunelleschi story. **Any one of: his panel is lost; no other perspective picture by him is known; the main account was written decades later and doesn't call it an experiment; details in the account contradict each other.**
4. In oblique projection, do receding lines meet at a vanishing point? **No. They stay parallel.**

Vocabulary

linear perspective, oblique projection, hierarchical proportion, similar triangles, treatise, Renaissance

Differentiation

- **Support:** for the size test, give a recording table with the distances already filled in, and accept "smaller, then smaller again" before numbers. For the comparison, give sentence starters.
- **Stretch:** plot the group's three measurements against distance. What would you predict at 16 m? Or: find out what "foreshortening" means (an object's depth along the line of sight looks shorter than its width facing you) and find an example in one of the pictures.

⚠ Safety

- Mark distances with tape in a clear space indoors or on a playground; keep away from doorways and traffic routes.
- Measuring with one eye closed while walking is a trip risk: stand still to measure, walk with both eyes open.

Teacher notes and misconceptions

- **What to look up.** These works are centuries old and in the public domain, but photographs of them carry different licences, so check and record the credit of the image you print: Masaccio, Holy Trinity (about 1427); a painting by Piero della Francesca (the source calls his paintings a model of the genre); a print by Torii Kiyonaga; an ancient Egyptian tomb painting. Local galleries and museum websites with open-access images are a good place to look.
- **"Brunelleschi invented perspective."** Earlier artists already showed far things smaller; the source describes ancient Greek stage scenery (skenographia), Euclid's Optics (about 300 BC), and Roman frescoes using several vanishing points "in a systematic but not fully consistent manner". The Florentine contribution was a consistent geometric system. Alberti was trained in optics under the influence of a scholar who studied Alhazen's Book of Optics, translated into Latin around 1200.
- **"Other traditions didn't know how."** Avoid this. The source says medieval European, Islamic and Chinese artists knew far things look smaller but were ready to override it for other reasons. Present systems as choices.
- The size rule uses the apparent height on a ruler at a fixed arm's length. Numbers will differ between pupils (arm lengths differ); the halving pattern is the point.

Lesson 5: My own deep picture

Unit overview · Previous: Lesson 4

Goal

Students plan and draw a scene of their own in one-point perspective, add at least one other depth clue, explain one choice, and give kind, specific feedback in a gallery walk.

Materials

- Per pupil: A3 or A4 drawing paper, HB pencil, eraser, ruler; a soft pencil (2B-4B) or coloured pencils for shading.
- Pupils' lesson 1-3 work for reference; the printed photographs from lesson 2.
- Sticky notes for feedback; a sentence-starter card: "I notice you used ___ and it makes ___."

Steps

✎ Opening (5 min)

Show two or three quick ideas on the board: a corridor of doors, a street of box buildings, a tunnel or bridge, a room seen from the doorway, a made-up place (a library of giant books, a city for ants). Rules for the picture:

- one horizon line and one vanishing point;
- at least three objects drawn in one-point perspective;
- at least one **other** depth clue from lesson 1 (overlap, size, detail, or lighter, lower-contrast tones for far things).

✎ Main activity (25 min, plus time in a following session if needed)

1. **Plan (5 min).** Pupils make a small thumbnail sketch (about the size of a playing card). Decide where to put the horizon: low (looking up, things feel tall), middle, or high (looking down, like a bird). Mark the VP.
2. **Construct (10 min).** On the big sheet, draw the horizon and VP lightly, then the main boxes or walls using the lesson 3 steps. Keep construction lines light.
3. **Add depth and value (10 min).** Rub out unneeded lines. Shade one side of each object to show where the light comes from (the grade 3 idea of value). Make near things darker and more detailed, far things lighter and simpler.
4. **Explain (in the last 2 minutes).** On the back, pupils write one sentence: "I put my horizon ___ because ___."

Gallery walk and feedback (5-10 min)

Drawings go on desks. Pupils walk round and leave one sticky note on two drawings, using the sentence starter. Feedback must name something in the picture (for example "I notice you made

the far windows lighter and it makes the street look long"). No "it's bad" or "it's good" without a reason.

✓ Discussion questions (with example answers)

- "Where did people put their horizons, and how does that change the feel?" Example: a low horizon makes buildings tower over you; a high one makes it feel like looking down from a window.
- "Did anyone break a rule on purpose? Did it work?" Example: someone drew a giant character on purpose to look important, like hierarchical proportion. It works if it is clearly a choice.
- "What was hardest?" Example: keeping all the lines going to one point, and stopping back edges in the right place.

✓ End-of-unit check (8 questions, with answers)

1. Name three depth clues an artist can use. **Any three of: overlap, size (far things smaller), height on the page, detail, colour and contrast fading (aerial or atmospheric perspective), linear perspective.**
2. What does the horizon line stand for? **The viewer's eye level.**
3. What is a vanishing point? **The point where parallel lines going straight away from the viewer appear to meet.**
4. In one-point perspective, which edges of a box are drawn exactly horizontal or vertical? **The edges of the front face and the back edges (all edges facing the viewer). Only edges going away from the viewer run to the vanishing point.**
5. A box is below the horizon. Can you see its top or its bottom? **Its top.**
6. A lamp post looks 9 cm tall on your ruler. You move to three times the distance. About how tall does it look now? **About 3 cm.**
7. Who wrote De pictura about 1435, and what idea did it introduce? **Leon Battista Alberti; it introduced the vanishing point and explained how to show distance in painting (using similar triangles).**
8. A classmate says ancient Egyptian painters "couldn't draw perspective". Give a better explanation. **They often used hierarchical proportion on purpose, making important people larger. It shows importance, not distance; it is a different choice, not a failure.**

Vocabulary

thumbnail sketch, composition, horizon line, vanishing point, value, feedback

Differentiation

- **Support:** start from a sheet with the horizon, VP and one box already drawn, and add two more objects. A partner may hold the ruler. Accept a verbal explanation instead of the written sentence.
- **Stretch:** add a second set of objects that are turned at an angle (a hint of two-point perspective, with two VPs on the same horizon), or draw a reflection in a puddle or tiled

floor. Or draw the same scene twice, once in one-point perspective and once in oblique projection, and write which you prefer and why.

⚠ Safety

- Rulers and pencils as in earlier lessons. During the gallery walk, walk, don't run; touch only your own work and the sticky notes.

Teacher notes and misconceptions

- Assess against the three rules, the explanation and the feedback, not realism or neatness. A messy drawing with one clear VP and a sensible horizon meets the goal.
- **Several VPs by accident.** Ask the pupil to put a ruler on two receding lines and see where they meet. If they meet in different places, choose one VP and redraw lines to it.
- **Everything shrinks to a dot.** Some pupils make all objects end at the VP. Remind them the back edge stops the box; only construction lines reach the VP.
- Keep the feedback kind and specific; the same sentence starter is used in the grade 3 colour unit, so many pupils will know it.
- Pupils who want to share drawings outside the class should credit any photograph they copied from and follow school rules on displaying work.