FREE TEACHING RESOURCE / 3–5 / 19

Bridge Builders in Paper

TEACHER GUIDE • lesson design & facilitation

Grade band: 3–5 | 4–5 sessions, 45–55 minutes

Media: washable art media and cut-paper supplies

The artistic problem

Construct a small paper bridge proposal and draw how it works.

Essential question: How can a structure carry weight and communicate its purpose?

Place-based cultural lens: Examine Louisiana bridges connecting waterways and communities.

Learning targets

- Investigate the question: How can a structure carry weight and communicate its purpose?
- Apply folding, tabs, tension, form studies, elevation sketch in a deliberate original composition.
- Use critique evidence to improve folding and name one next step.

Student-visible success criteria

- The final artwork solves this problem: Construct a small paper bridge proposal and draw how it works.
- Artwork includes two prototypes, a load observation, and a justified revision.
- Process evidence shows three different options before selection.
- Visual decisions demonstrate folding and support the intended audience.
- Feedback results in at least one visible revision that the student can explain.

Standards & studio habits

Louisiana Grade 3–4: VA-CE-E1, VA-CE-E3, VA-AP-E6; Grade 5 (5–8 cluster): VA-CE-M2, VA-CE-M7

Studio Habits of Mind: Develop Craft, Stretch & Explore, Express, Reflect. These habits are developed interactively, not in a fixed rank or sequence.

Instructional alignment: Louisiana benchmark codes are official broad grade-cluster benchmarks; specific expectations are developed locally. The ten instructional stages come from the supplied Artistic Investigations framework.

Preparation & materials

- Drawing paper or sketchbook for idea studies
- washable art media and cut-paper supplies
- Samples and images from reliable sources, with attribution
- Tools appropriate to local safety rules and grade level
- Choice of visual, oral, or written reflection tools

10-stage teaching sequence

01 / Engage Present the artistic question: How can a structure carry weight and communicate its purpose? Give students two contrasting examples that do not dictate a finished product.

02 / Investigate Examine Louisiana bridges connecting waterways and communities. Gather visual evidence and note what is observed rather than assumed.

03 / Skill Studio Demonstrate folding, tabs, tension, form studies, elevation sketch. Make thinking visible by testing two alternate solutions and identifying what each communicates.

04 / Generate Develop three possibilities for the challenge: Construct a small paper bridge proposal and draw how it works. Change the focal point, material, arrangement or viewer perspective between drafts.

05 / Plan Compare sketches to the success check (two prototypes, a load observation, and a justified revision); choose a direction and state why it better communicates the intention.

06 / Produce Produce an original visual response using folding, tabs, tension, form studies, elevation sketch; conference on one technical choice and one contextual question.

07 / Critique Partners identify where the artwork communicates the intended idea and locate evidence of folding in the work.

08 / Revise Revisit the specific checkpoint: Two prototypes, a load observation, and a justified revision. Make one visible change after critique and preserve the initial view for comparison.

09 / Present Present with a title, medium, one key artistic decision and any needed credit or contextual limitation.

10 / Reflect Reflect: What evidence proves you improved folding? What will you try or investigate next?

Studio sessions & evidence checkpoints

Session	Teaching move	Capture evidence
Day 1	**Observe + question** Examine Louisiana bridges connecting waterways and communities.	Notice/wonder log and initial study.
Day 2	**Develop craft** Demonstrate folding, tabs, tension, form studies, elevation sketch. Make thinking visible by testing two alternate solutions and identifying what each communicates.	Technique trials and feedback.
Day 3	**Generate + plan** Produce three proposals and select one using criteria.	Three thumbnails and written/oral rationale.
Day 4	**Produce + critique** Create and test work against the checkpoint: Two prototypes, a load observation, and a justified revision.	Work sample and peer response.
Day 5	**Revise + exhibit** Make one substantial change; present and reflect.	Before/after evidence and a precise next step.

Key technique to model

folding, tabs, tension, form studies, elevation sketch

Access without lowering the artistic goal

Ask who benefits from a connection and who may face barriers using it. Offer physical samples, captioned images, accessible demonstrations, flexible planning modes, and alternate materials while retaining the common visual learning target.

Teacher coaching questions

- What is the visual problem you are solving?
- Which decision communicates your intended meaning most clearly?
- What does your reference prove, and what are you still imagining?
- What could a viewer misunderstand?
- What visible revision will strengthen your next version?

Cultural care

Never test classroom bridges with unsafe loads or copy a named engineer's design.

Stretch & explore

Design a bridge for a habitat visitor as well as people.

Design provenance: Original Studio Fieldnotes investigation developed for the 50-lesson library; informed by the teacher-supplied ten-stage Artistic Investigations architecture and reflective Studio Habits framework.