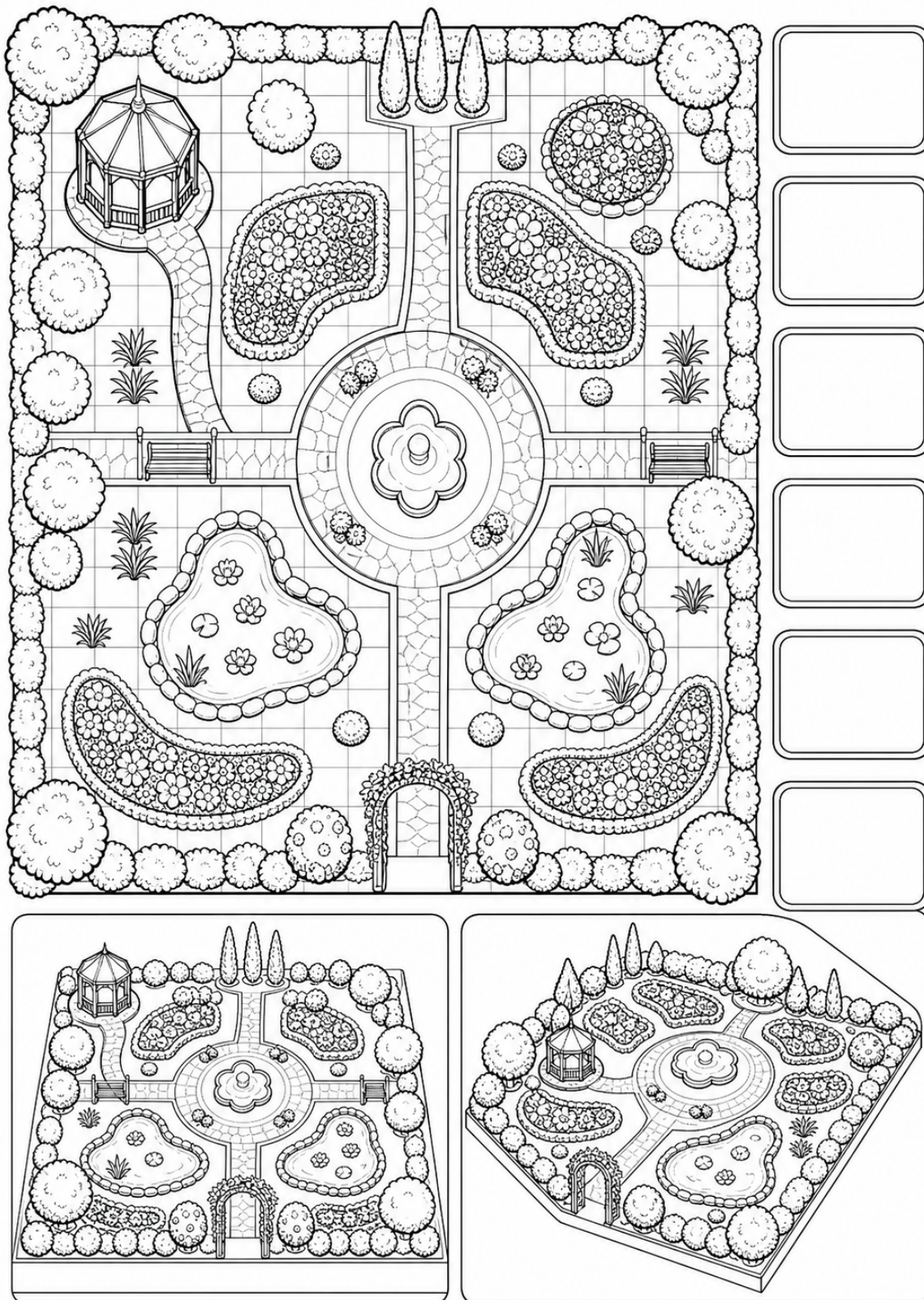


Ratio Garden: Proportion by Design

KS3 / Year 9 - Mathematics

Count and compare two repeated features in the plan, express and simplify their ratio, then propose a scaled version of one garden bed and justify the multiplier.



Ratio Garden: Proportion by Design

KS3 / Year 9 - Mathematics

Count and compare two repeated features in the plan, express and simplify their ratio, then propose a scaled version of one garden bed and justify the multiplier.

Parent & Teacher Guidance

Curriculum focus

Topic: Ratio. Develop accurate observation, subject vocabulary and evidence-based explanation. Mapped scope: KS3 Mathematics: solve problems involving ratio, direct proportion, scale drawings and multiplicative change..

Before you begin

Review the picture together and ask the learner what they already notice about Ratio. Read the activity aloud, explain unfamiliar vocabulary, and agree which details need special attention.

Solo activity

The learner can complete the colouring independently, then use the finished page to explain three details linked to Ratio. Encourage accurate colour choices where they carry meaning, but allow creative choices elsewhere.

Group activity

Give pairs or small groups different areas to inspect. Ask them to agree on evidence before colouring, compare their findings, and present one curriculum fact to the class. Finish with a whole-group check against the guidance below.

Questions to guide discussion

What evidence can you see? Which feature is most important and why? How does one part connect to another? What new fact about Ratio can you explain using the picture?

Answers and checking

Valid answers identify unambiguous repeated features, state the comparison order and simplify correctly. A scaled design multiplies every corresponding length or count by the same positive factor. Area changes by the square of a length scale factor when dimensions are scaled.

Learning record and next steps

☐ Completed the colouring

☐ Explained key vocabulary

☐ Completed the activity

☐ Used visible evidence

Evidence noticed / vocabulary used

Next step:
