

3.6 Digital Art and Design

Name: _____ Class: _____ Date: _____ **Total: 10 marks**

KEY WORDS vector 矢量 • raster 位图 • layers 图层 • digital art 数字艺术
• digital media 数字媒介

Objective

Build the skills to work in **digital art** 数字艺术 and design.

You must be able to:

- explain **layers** 图层 and non-destructive editing
- distinguish **raster** 位图 from **vector** 矢量 images
- apply the same elements and principles digitally
- state one strength of digital media

1 Worked examples

Study these first. Each one shows the method for a task used later.

■ Layers

Digital tools use **layers** — stacked, editable sheets — so parts can be changed without affecting the rest (non-destructive editing).

■ Raster vs vector

Raster images are grids of pixels (photos; they blur when enlarged). **Vector** images are math-defined shapes (logos; they scale cleanly).

■ Same principles

The elements and principles still rule — composition, value, colour, and emphasis matter as much on screen as on paper.

2 Practice

2.1 An image made of math-defined shapes that scales without blurring is [1]

- **A** raster
- **B** vector
- **C** charcoal
- **D** intaglio

2.2 Explain one advantage of working in layers. [2]

2.3 State when you would choose raster over vector. [1]

3 Studio & portfolio tasks

3.1 Plan a **digital layered design**.

(a) Sketch the composition and list what goes on each of 3+ layers. [3]

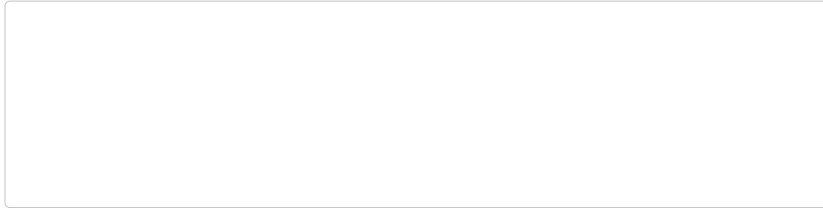
3.2 Choose raster or vector.

(a) Decide raster or vector for your idea and justify it.

[1]

(b) Thumbnail the result.

[2]



Solutions

2.1 B. math-defined, cleanly scalable = vector.

2.2 each part can be edited separately without altering the rest — non-destructive, flexible editing.

2.3 for photographs or richly detailed painterly images.

3.1 Look for: a composed design (1); a sensible layer breakdown enabling non-destructive edits (2).

3.2 Look for: correct choice justified by the idea (1); thumbnail suits that format (2).