

Name _____

Class _____

Date _____

By the end of this worksheet I can...

- ☐ describe 3D rendering: light source, materials, reflections, shade and sited environment
- ☐ explain why rendered images are useful for non-specialist audiences

I DO

Worked example Read how a full-mark answer is built

A 3D model of a house extension has been rendered.

1 Describe two 3D rendering techniques that have been applied, relating them to the model. (2 marks)

Full-mark answer each ✓ is one mark

A light source has been applied from the left, so the front wall of the extension is lit and the side is in shade ✓. Glass material has been applied to the windows, which reflect the sky and trees ✓.

Why marks are not awarded

"Lighting and materials."

0 marks: one-word answers are not accepted at Higher; describe each technique on the model.

WE DO

Guided practice Use the starters and word bank to help you

A rendered CAD image of a new watch is used in a magazine advert.

2 Explain two advantages of rendered images for a non-specialist audience. (2 marks)

Sentence starters

One reason is ... because ...
Another reason is ... so ...

Word bank

before · non-specialists · understand ·
textures · colours · materials · realistically

Tip: 2 marks = 2 separate, developed points.

YOU DO

On your own No notes. Check your answers afterwards.

3 Quick check: tick one box for each.

- a) Placing a model of a house extension in a street scene is...
☐ A decal ☐ A cut-away ☐ Ray tracing only ☐ A sited environment
- b) A logo applied to a curved surface of a model is a...
☐ Texture ☐ Decal ☐ Material ☐ Light source
- c) Rendered images are most useful for...
☐ Non-specialist audiences ☐ Manufacturers needing sizes ☐ Hatching sections ☐ Showing hidden detail

4 Key terms: write the letter of the matching description next to each term.

- | | | |
|---------------------------------------|-------|--|
| 1. Sited environment | _____ | A Light source, materials, texture, reflections, shade/shadow, sited environment. |
| 2. Higher rendering techniques | _____ | B An image such as a logo applied to the surface of a 3D model. |
| 3. Decal | _____ | C Placing a 3D model in a realistic scene to show scale and context. |

A designer 3D prints a prototype of a cookie cutter.

5 Explain two benefits of 3D printing the prototype. (2 marks)

6 Why render for a client? (2 marks)

Check and reflect

Mark your answers with the answer sheet. Go back to the checklist on the site and re-rate each "I can" statement above. Which one still needs work?
