WORKSHEET 06 · TOPIC 6

# RenderClass: *camera, lights* & studio

A good render is a good photograph. Frame the shot, light it like a pro and save a clean, ray-traced image.

⏱ 50 MIN | COMPUTER + CHROME/EDGE | N5-REN_STUDIOPRO_FILES.ZIP | YOUR .DCSTUDIO PROJECT

Name _____

Class _____ Date _____

**LEARNING INTENTION**

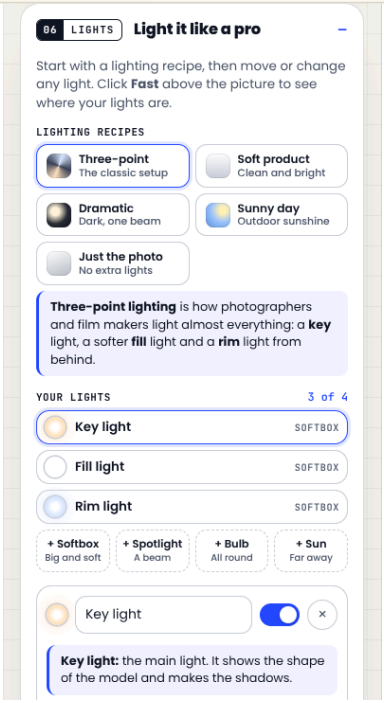
To set up the camera, lighting and studio to produce a high quality 3D CAD rendered illustration for promotion.

**SUCCESS CRITERIA — I CAN…**

- frame a pictorial shot using picture shape, lens and the rule of thirds
- use three-point and other lighting recipes
- choose studio, floor and save settings
- explain how lighting and render settings change the image

## TASK 1 Light it like a pro

6 marks




**1** Describe the job of each light in **three-point lighting**. RENDERCLASS SKILL — NOT EXAM CONTENT — 1 mark

Key light:

Fill light: — 1 mark

Rim light: — 1 mark

**2** State what happens to a render as the number of **passes** increases. — 1 mark

**3** A light is moved further away from the model. State what happens to its shadows. — 1 mark

**4** Explain why **light bounces** should be set to 6 or more for a model with a glass lens. — 1 mark

TASK 2

# Client brief — Beam torch poster

BEAM WANT A DRAMATIC POSTER IMAGE

| | |
|---|---|
| **Model** | **Beam_Torch.step** |
| **Body** | Paint · **Metallic paint**, red |
| **Tail cap** | Metal · **Aluminium** |
| **Button + grips** | **Rubber**, black |
| **Lens** | Acrylic & glass · **Glass** |
| **Bezel** | Metal · **Chrome** |
| **Sticker** | **Beam_Decal_Logo.png** along the body · Shiny |
| **Camera** | Picture shape **Tall** (4:5 poster) · Lens **Portrait** · rule-of-thirds grid on |
| **Lights** | Recipe **Dramatic** |
| **Studio** | Floor **Backdrop** · dark background · Shiny floor on |
| **Save** | Quality **Good** · Light bounces **6+** · Clean up the grain ✓ |

STEPS

1. Load the model and paint every part (Worksheet 05 method).
2. **05 Camera**: set **Tall**, turn on the grid, choose **Portrait**. Orbit to a pictorial view with the head on a third line.
3. Click **+ Remember this view as a shot**. Find a second, different angle and remember that too.
4. **06 Lights**: choose **Dramatic**. Click **Fast** to see where the lights are.
5. **07 Studio**: choose **Backdrop**, a dark background and **Shiny floor**.
6. **08 Save**: set the brief settings, then save a picture of **each** shot.

- [ ] Tall picture, pictorial view
- [ ] Highlights and shadows clearly visible
- [ ] Glass lens looks clear
- [ ] No grain in the final image

SHOT 1

SHOT 2

Type-in version: print this box, or render digitally and hand it in with this sheet.

## TASK 3 Evaluate your shots

4 marks

**5** Explain which of your two shots is better for the poster. Refer to the view and the lighting. 2 marks

**6** Explain how the **Dramatic** lighting recipe changes the look of the product compared with **Soft product**. RENDERCLASS SKILL — NOT EXAM CONTENT 2 marks

## TASK 4 Lighting experiment

5 marks

Load your Pulse or Brew project. Render it with three different lighting recipes and complete the table.
RENDERCLASS SKILL — NOT EXAM CONTENT

| RECIPE | EFFECT ON HIGHLIGHTS AND SHADOWS | BEST USED FOR… |
|---|---|---|
| **Three-point** | | |
| **Soft product** | | |
| **Sunny day** | | |

**7** A pupil's render is dark, grainy and pixelated. Describe **two** ways to improve it. 2 marks

**Total for knowledge questions** ____ / 15

SELF-ASSESSMENT — TICK ONE BOX PER LINE (✓)

| I CAN… | NOT YET | NEARLY | GOT IT |
|---|---|---|---|
| frame a pictorial shot with picture shape, lens and the grid | ☐ | ☐ | ☐ |
| set up three-point lighting and explain each light | ☐ | ☐ | ☐ |
| choose studio and save settings for a clean render | ☐ | ☐ | ☐ |
| explain how lighting and settings change the image | ☐ | ☐ | ☐ |

One thing I will do to improve: