Color Eye Study: Iris Hue and Pupil Contrast

Original tasks 1, 2 / complete keys

Task 1

An eye outline has a pupil diameter of 2 cm and an iris diameter of 6 cm. The student fills the iris with middle orange, adds light orange at the outer edge, and fills the pupil with dark brown. The dark iris edge is light orange. Does the pupil contrast meet the brief? Explain using the values described.

Answer: Yes. The pupil is dark brown, which is darker than the light orange iris edge, so the pupil separates clearly. The iris also shows middle orange and light orange, giving hue variation.

Reason: The brief requires pupil contrast and iris hue variation. Dark brown against light orange creates a strong value difference, and two orange values appear in the iris.

Check: Compare the pupil color with the darkest iris color. If the pupil is darker, contrast is present. Count the visible iris values; at least two means hue variation is present.

Task 2

A student uses a purple hue family. They fill the iris with middle purple, add dark purple near the pupil, and fill the pupil with dark purple. The sclera is left white. Identify the main problem and give one fix.

Answer: The main problem is that the pupil and the dark iris edge are the same dark purple, so pupil contrast is weak. Fix by filling the pupil with black or a darker purple, or by lightening the iris edge.

Reason: The pupil must be the darkest and most distinct shape. Using the same dark purple for both the pupil and iris edge removes the contrast the brief requires.

Check: Place a small sample of the pupil color beside a sample of the dark iris edge. If they look equal in value, adjust one of them.

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Original tasks 3, 4 / complete keys

Task 3

An eye study uses a green hue family with light green, middle green, and dark green patches. The student fills the iris with middle green, adds light green at the outer edge, and adds dark green near the pupil. The pupil is filled with black. The sclera is colored middle green. Is the sclera choice suitable? Explain.

Answer: No. The sclera should be lighter than the iris middle value so the eye zones stay readable. Coloring the sclera middle green makes it equal to the iris and reduces the separation between zones.

Reason: The brief separates iris, pupil, and sclera zones. A sclera equal to the iris middle value blurs the iris boundary and weakens the eye structure.

Check: Compare the sclera color with the iris middle patch. If the sclera is not lighter, change it to a lighter value or leave it white.

Task 4

A student makes a hue strip with light blue, middle blue, and dark blue. They fill the iris with middle blue and add dark blue near the pupil. They forget the light blue at the outer edge. The pupil is black. Does the iris show hue variation? What should they add?

Answer: The iris shows only middle blue and dark blue, so variation is limited but present. To meet the brief more clearly, add light blue at the outer iris edge so three values of the same hue family are visible.

Reason: Hue variation means visible differences within the chosen hue family. Two values can count, but adding the light patch makes the variation clearer and uses the prepared swatch strip.

Check: Count the distinct blue values inside the iris ring. If fewer than two are visible, add a lighter or darker patch from the hue strip.

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Source rubric / reflection

- [ ] The eye outline has labeled pupil, iris, and sclera zones.
- [ ] The iris uses one hue family with at least two visible values.
- [ ] The pupil is the darkest value and separates clearly from the iris.
- [ ] The sclera is lighter than the iris middle value.
- [ ] The hue swatch strip shows light, middle, and dark patches.
- [ ] Labels are readable and point to the correct zones.
- [ ] The drawing is complete and the pupil is filled last or kept clean.

Reflection: What did you check, what did you change, and what will you try next?