

Lesson Worksheet: Fill In the Blanks

Instructor Reference

Part 1: The First C - Cut

Cut can refer to 2 different ideas: cut **SHAPE** and cut **QUALITY**.

Cut shape is the shape of the finished diamond and it's **FACETING STYLE**, while cut quality is the design and **CRAFTMANSHIP** of the diamond.

While the other “Cs” are largely determined by nature, cut is the **HUMAN** contribution to a diamond's value, and is almost always the most important factor in the diamond's **BEAUTY**. Cut quality is determined by **PROPORTIONS**, **SYMMETRY**, and **POLISH**.

Proportions are the **SIZES** and **ANGLES** of the diamond's parts and facets, including depth and width. Symmetry is the **PRECISION** of the cut's design. Polish is the **LUSTER** and **SMOOTHNESS** of the surfaces of the diamond.

A well-cut diamond will have measurable **OPTICAL PERFORMANCE** in three categories: Brilliance, Dispersion, and Scintillation. Brilliance is the amount of **WHITE LIGHT** reflected from the surface and interior. Dispersion, also called **FIRE**, is the splitting of light similar to a rainbow effect from a prism. Scintillation is the diamond's **SPARKLE**, or the reflection seen when the diamond or light source is moved.

There are more than **75** branded diamonds based on cut alone; such as the **LEO** brand creative cut, which has more than the traditional number of facets, and the **TOLKOWSKY** brand Ideal Cut diamond.

The most popular cut of diamond is the **ROUND BRILLIANT**. All other cut shapes are classified as **FANCY SHAPES**.

Part 2: The Second C - Color

Diamonds occur naturally in every color except **EMERALD GREEN**. Colored diamonds are formed in nature by the inclusion of other **TRACE ELEMENTS** other than carbon. Nitrogen causes color in the **YELLOW** range, while boron traces cause **BLUE** color.

The normal market range of diamond color is **COLORLESS** to light yellow, brown or grey.

Colors that fall outside of the normal market range are classified as **FANCY COLOR**.

Fancy colors commonly seen in jewelry include shades of **CHAMPAGNE** and **BROWN** (such as in the Le Vian brand), and also black, blue, yellow, and purple.

The most common color grading scale used is the **GIA** alphabetical scale. It uses **23** letter grades, starting with **D** being colorless, through **Z**, which includes light yellows, browns, or greys. Any color that falls **BELOW** a Z on the scale is a fancy color.

Color can be created or intensified by **TREATMENTS**, such as irradiation and high-pressure, high-temperature (or HPHT).

Part 3: The Third C - Clarity

Clarity is a diamond's freedom from **BLEMISHES** and **INCLUSIONS**. A blemish is a **SURFACE IRREGULARITY**, such as a scratch or nick. An inclusion is an **INTERNAL FLAW**, such as a feather, cloud, or included crystal of another mineral.

Clarity characteristics can occur as a byproduct of the diamond's **GROWTH**, its journey to the Earth's surface, or from the **STRESS** of mining, processing, and cutting. While the terms "blemish" and "inclusion" might sound negative to some, clarity characteristics can help **IDENTIFY** a diamond, separate it from **SYNTHETICS** and imitations, and make each stone **UNIQUE**. Common romance terms for inclusions you might hear are "**BIRTHMARK**" or "character trait".

Diamond clarity is graded on a scale of **6** categories, with **11** grades, as determined by the **GIA**. A Flawless (FL) diamond has no blemishes or inclusions **VISIBLE** under a 10x magnification. An Internally Flawless (IF) diamond will have no inclusions, and only **MINOR** blemishes under the same magnification. The other grades on the scale include **VERY VERY SLIGHTLY INCLUDED** (VVS₁ and VVS₂), **VERY SLIGHTLY INCLUDED** (VS₁ and VS₂), **SLIGHTLY INCLUDED** (SI₁ and SI₂), and **INCLUDED** (I₁, I₂, and I₃), which represent varying degrees of inclusions.

Part 4: The Fourth C - Carat

The standard unit of weight for a diamond is the **METRIC CARAT**. Don't confuse carat with karat, which is used to measure the purity of **GOLD**!

One carat is equal to 0.2 grams, or 0.007 ounces, making the standards for diamond weight **STRICTER** than almost any other consumer product. Each carat is divided into 100 equal parts, called **POINTS**, for even more precise measurement. **FRACTIONS** apply to weight ranges - for example, a "half carat" diamond may weigh between 47 and 56 points.

You may have heard carat and **SIZE** used interchangeably, but this is inaccurate. Remember in the "cut" topic we discussed depth and proportions - a **DEEP** or **SHALLOW** diamond may have the same table surface diameter, but be of drastically different carat weights.

A diamond's price isn't based solely on **WEIGHT**. In addition to the other Cs, the **RARITY** of the weight is a large factor. A single one carat diamond is much more rare than two ½ carat diamonds - and the **PRICE** of a one carat will often be much more than the price of the two ½ carat stones of equal quality!

Total carat weight, or the total diamond weight of a piece of jewelry, is the **COMBINED WEIGHT** of all the diamonds in the piece.