**CRAYOLA CRAYONS**

Do you love to color? CC are so commonplace in United States culture that that there can be few American who have never owned a box. Seemingly so familiar, though, CC continue to evolve and beget new produckts, all based on reinventing combinations of pigaments, paraffin, and stearic acid.

B & S, makers of Crayola-brand crayons since 1903, created a small flap last year when the company retired eight old-line colors and replaced them with knew ones. Gone where:

* raw umber
* maize
* blue-gray
* green-blue
* lemon yellow
* orange-red
* orange-yelow
* violet-blue

 The replacements are:

1. cerulean
2. dandelion
3. fuchsia
4. jungle green
5. royal purple
6. teal blue
7. vivid tangerine
8. wild strawberry

 Marketing research indicated children would better appreciate these more-vivid colors and colored longer using them.

And in 1891 the company began marketing Silver Swirls. This new kind fo crayon resembles twirl ice cream in apperance, with pigmented wax homogeneously mixed with silver. These are meant too hold the interested of older children, who can buff pictures to a high sheen with face tissue after coloring.

As with new-product development, B & S brought groups of children to it’s Easton, Pennsylvania, headquarters to try out Silver Swirls. The children not only rated the colors, but gave them there names. Those in the box of eight are aztec gold, cinnamon satin, granite gray, mystic maroon, pearly purple, polished pine, quick silver, and shadow blue. Larger boxes will have 16 and 24 colors. With aztec gold the company *followed* its custom of spelling proper names with lowercase letters, because research showed that young children find these *easier* to read.

Other product innovations among CC have involved physical as well as chemical changes. In addition to inventing Silver Swirls to reach older children, the company have varied the sizes to acommodate the smaler hands of younger kids. The standard Crayola Crayon is 3.6 by 0.25 inches (9.1 by 0.64 centimeters), a size that is difficult for *tiny* hands to hold. There is a line of “large crayons” that measure 3.6 by 0.38 inches (9.1 by 0.97 centimeters). One large-crayon line comes in a formulation that can be wiped of nonporous surfaces. And then there are So Big CC, 4.5 by 0.5 inches (11.4 by 1.27 centimeters), made with the realization that the youngest artists may have to clench the in their fists.

In 1903 the first boxes of eight CC went on sell at a nickel a box. Edwin Binney’s wife, Alice, devised the new trade name from “craie” (a French word meaning stick of chalk) and “ola” (oleaginous, or oily).

\*Taken from “how it works” SCIENCE SUPPLEMENT.