By BOB LANE

Currently The New Yorker magazine is running a series of three essays, “Reflections — The World of the Scientist” by Freeman Dyson, who has been a co-director of the Institute for Advanced Studies at Princeton for several years. Dyson talks about his childhood in England, his early interest in mathematics (for example, at age 14 he spent one Christmas holiday mastering differential calculus) and his work as a scientist during World War II.

One of Dyson’s jobs for the bomber command was to study data on casualties in the air and attempt statistical correlations that would yield information about safer ways to fly bombing runs over Germany.

He reports that in 1942 information showed that experienced bomber crews had a better chance of returning than inexperienced crews. Everyone in bomber command believed that experience was a factor in success and, in addition, statistics bore out that claim.

By 1944, however, there was no statistical evidence showing a relationship between experience and safe return. New crews and old were being shot down at the same rate.

No longer was experience, or training, a factor. Bomber command did not want to hear this, and, apparently, dismissed the report as inconsequential.

In fact, there was a reason for the change and one that could have been counteracted. The Germans had, in those two years, mounted vertical cannon on their fighters and were simply flying undetected under the bellies of the British bombers and shooting straight up. If bomber command had paid attention to the scientists’ reports they might have saved many crewmen from dying in the sky.

We can all understand how such an event could happen because we all have a tendency to hold on to our beliefs and assumptions with tenacity, even against the facts.

For a long time now many have believed that scientists and artists approach the world in some fundamentally different way. The scientist is one who thinks in a linear, logical, cold and calculating way, goes this theory, while artists use a different part of the brain, are synthesizers, creators, visionaries, who do not murder to dissect.

Here’s Dyson describing the birth of his theory of particle physics: “As we are dawdling across Nebraska on the third day, something suddenly happened. For two weeks, I had not thought about physics, and owe it came bursting into my consciousness like an explosion. Feynman’s pictures and Schwinger’s equations began sorting themselves out in my head with a clarity they had never had before… I was able to put them all together… I was without pencil and paper, but everything was so clear. I did not need to write it down… As we moved on into Iowa, it grew dark, and I had a good long sleep.”

John Keats composed “Ode to a Nightingale” in a single morning. We are free to doubt, as his biographer states, whether any poem in English of comparable length and quality has been composed so quickly.

Both poet and physicist step into a new level of comprehension from the solid ground of experience. They are not endowed with different kinds of minds, but with the same kind.

Why have art in the schools? In a time of rising prices, inflationary pressures, expensive facilities should we not cut and trim the bloated school budget? Can’t we economize by cutting out the frills? And aren’t the arts traditionally known as just that: the frills?

These and other questions will, I’m sure, be facing the Task Force on the Arts set up in our community to receive briefs, hold public meetings, and gather information on how the educational system should best provide whatever instruction in the arts we believe should occur. The ads in the paper suggest that one can contact Roy Plater if one has something to say on the subject. It is an important subject and you should take some time to have your opinions heard — after all you pay the taxes to support whatever programs the district decides to fund.

What follows is this column’s brief to the Task Force.

Behind any curricular offering must stand a rationale, a reason for doing whatever is being done. We need to evaluate the revalue what we do in the schools because those schools deal with our most important resource — human beings. We want those schools to allow for the maximum human development of each of our children. We want citizens who can think, evaluate, understand, learn, and cope.

We want, to use an old cliche, well-rounded citizens who are equipped to deal with the complex issues of the century we live in and the ones that are coming. We want citizens who are sensitive to the needs of the spirit as well as to the needs of the flesh.

The arts have an important role in fulfilling this challenging task. The arts: visual, musical, literary, theatrical help us to see. They help us to develop a point of view. They teach us tolerance. They teach us to feel deeply and with focus about the beauty that occasionally can touch our lives. They teach us about form, and about projection. They can be a way of knowing just as certain and important as science. In short, the arts teach us how to feel and how to name the feelings we have.

As for specific suggestions:
— all offerings in the arts should be developed toward the end of producing participants and not passive spectators.

— “Doing” is a key word in the arts. We want citizens who are doing art, not just buying art or consuming art. Teach us how to make music, to make poems, to make plays, to make dance, not just how to buy tickets.

— insist that teachers have the necessary training. Require “appreciation” courses in the arts of all teachers. It should not be possible to get a credential without having taken “appreciation” of music, or art, or theatre, any more than it should be possible to get the union card without studying science (perhaps an appreciation of science course for all teachers is also in order).

— set aside three or more positions each year to be filled by artists in residence. These positions would rotate yearly. Each year the district would have at least three artists from various disciplines who would work with kids and teachers to bring some of the joy of their art to the classrooms.

— don’t be afraid to teach values. Not all works of art are equal. Some are better than others. Shakespeare is better than Simon. Say so. And say why.

I’m sure the Task Force will receive many other suggestions. Please let us know of them. They matter. To all of us.