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Welcome to **ATTACK!** a two-page occasional publication. Most of **ATTACK!** will be concerned with the holistic curriculum which, if acted on, is a fundamental way to undermine the present undemocratic education system. Don't be discouraged if opportunities to teach holistically are limited, do your best, be a guardian, and act as a witness to this culturally significant and inspiring way of teaching and learning. **ATTACK!** is a partner to <https://networkkonnet.wordpress.com>

### **Attack! 53 Science perspective Part 1**

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#### **Some initial points:**

Science education must take its place in the primary classroom as one of the vehicles that can excite learners about the joy of learning

Science education should lead the learner to become a scientific investigator

Science education is about learners exploring the sand at their feet, sensing *their* environment

Science is a *verb*.

#### **Some approaches:**

Science education is developed within the learner's environment

Science education in primary schools explores everyday ideas and events using everyday tools and equipment

Science education seeks to clarify ideas about everyday things usually starting with a question.

#### **I believe that:**

A learner is not an empty vessel only requiring dinkum oil tipped into it

The views a learner holds are sensible ideas to that learner. Those ideas are held because of the sensory experiences the learner has had

An educator can only change those ideas with a model that is more sensible to that learner than the ideas already held



This means then that an educator first needs to learn what are the views that a learner holds

Secondly, to analyse if those views need changing or challenging

Thirdly, to plan to effect change in those views if indeed they need changing. It may be that there is no need to modify these views because the learner already has the skill, knowledge, or attitudes you may have wanted to inculcate.

If you are serious about exciting learners about learning then don't tackle a subject you can't get enthusiastic about ... it is better that the learner chooses a topic of interest to that learner and maybe it will rub off on to you. My advice to any teacher looking in horror at a school's long term plan is **'if you hate what you're being asked to do, ignore it, there are plenty of alternatives, try something else.'** Naturally consult with your syndicate leader and if you are told you have to do it, get it over with as quickly as possible. Then go and do what you really wanted to do.

All good science educators worry about a lack of science knowledge. It is a natural 'log-jam' to teachers getting enthusiastic about science. Be assured that all the great scientists I have worked with have the same insecurities. It's only the over-confident, the know-it-alls, the ones who never discovered penicillin, who didn't invent the integrated circuit, the second-raters who have to perpetuate the myth that scientists have all the answers. Think about it, if you knew all the answers, why would you be involved in an investigatory process? Have you thought about being a learner among learners? What about your learners helping you investigate some of those questions you were hesitant to ask others about?

Science education is all about investigating your world and trying to make better sense of it. Fred Hoyle, the great English astronomer, in speaking to the American Science establishment in the 1950s warned them: 'Big ideas come from the fishing trips, not from the big science establishments.' Einstein, Fleming, Rutherford, all worked with minimum resources and funding in run-down settings. They were great thinkers who were able to look at things in creative ways.

**For primary teachers my message to you is:**

There is a whole world of investigatory excitement out there, have a go, get your learners involved in sharing simple activities and simple observations. Let these be the catalysts to the questions that will form the basis of scientific investigations!

