

ASISW Memories and Reflections

Don Hyatt, Foundation National Director 1983-1986

August 2020

Introduction

Australian Science in Schools Week (ASISW) was an initiative of ASTA. ASTA members can take great pride in its achievements, thus it deserves documentation. ASISW was conceived and managed solely by ASTA as a schools-based event from 1984 to beyond 1988. It was certainly a precursor to National Science Week. During that time, hundreds of thousands of students in thousands of schools across Australia participated in a diverse range of science investigations and events that were devised and written by members of ASTA. To this day it remains the foremost student event managed by ASTA. It is an initiative with which ASTA should be proud.

The narrative below is a first-hand documentation from the beginnings of the event to the fifth ASISW held in October 1988 after which time someone else will have to take up the story.

The Beginnings

I was first approached to establish a national science week by Brenton Honeyman (ASTA President) and Kevin Kee (ASTA Secretary) in about July 1983. This event was solely an ASTA initiative and was conceived to celebrate Australian science in Australian schools throughout the country. It was to be called Australian Science in Schools Week, it had no budget and the brief was, to say the least, broad and open-ended.

After 15 months of planning the inaugural Australian Science in Schools Week (ASISW) was held from 15th – 19th October 1984.

At the time I was Science Education Officer at the CSIRO Science Education Centre, Highett, a bayside Melbourne suburb, seconded from the Victorian Department of Education; and yes, the suburb is homonymous with my surname! The contacts I had established within CSIRO and the resources it could provide would prove invaluable to the success of ASISW particularly in the beginning, then going forward. I was also in the fortunate position of having been on ASTA Council since 1980 and as a former Secretary and Treasurer of STAV I knew virtually all of the major players in the state & territory Science Teachers' Associations. This was essential in order to promote the event as a truly national week.

Initial discussions with Brenton Honeyman and Kevin Kee lead to an agreement that:

- The event was to be named Australian Science in Schools Week
- It would be school-based
- The emphasis was to be Australian Science, but clearly not limited to only Australian science
- It was to be clearly promoted as 'An initiative of the Australian Science Teachers Association'.

Given the state-based structure of education in Australia it became clear from Day 1 that a national science week could not be implemented from a central point, however there was a need for a

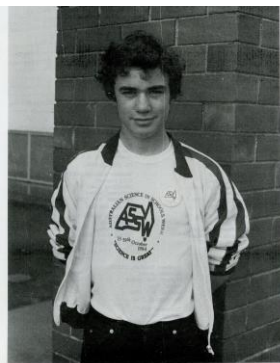
centralised structure and support in terms of ideas and resources and they would have to be generated and provided centrally.

There is a rule in management that if an idea is not embraced almost immediately then it is a bad idea. I was gratified that within ASTA and State Associations there was universal support for the concept. Thus, I looked to leverage off that support.

Clearly, we needed a state-based presence, so with the support of ASTA President, Brenton Honeyman I approached each State and Territory Association and requested they appoint a dedicated ASISW State Coordinator. This expanded the organising group to 11 (National Director, ASTA President and Secretary and 8 State/Territory Coordinators) and provided a dedicated link and presence in each state and territory.

As the team was being constructed, we needed to establish an identity for this activity. On reflection, there was never any doubt that this would be a success. We just shot for the stars and went for it.

We needed a logo. After a bit of research, I found that, unless you are a large company with an established brand your logo needed to clearly identify what it is you are promoting. In this case it was ASISW. It needed to be clear and simple, not cluttered, and convey the meaning instantly. With these criteria outline I put the call out to the co-



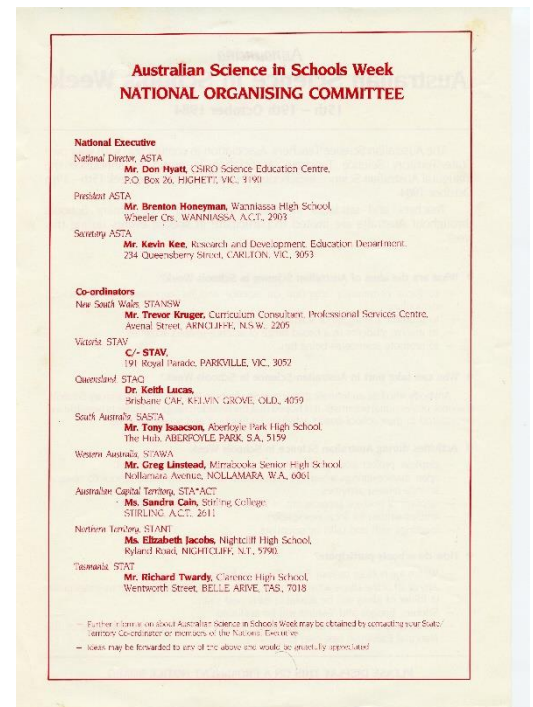
The designer of the now famous ASISW logo, Iain Robertson, a student at Christies Beach High School, S.A. Iain's effort was rewarded for a brief year and it represents something of what can be done if students are given the opportunity to improve their schools.

ordinators to ask students in their state to come up with an ASISW logo. A small prize was offered. This was variously embraced, but SA Coordinator, Tony Isaacson came up with a variety of designs. With the assistance of CSIRO communications staff, the ASISW logo was selected and subsequently used on all communication. The winning design came from Iain Robertson of Christies Beach High School, SA (see left). For his troubles he received a book prize, ASISW T-shirt and a badge. The winning design contained the ASISW letters and combined them imaginatively into a map of Australia. Perfect! The logo was then professionally drawn by a graphic artist at

CSIRO. We were on the way.

We had a great concept for a week of science activities, a logo and structure; but no established mechanism of promotion or communication. This was the next task. In reality it was all running a bit concurrently. As I write this in August 2020 it is instructive to look back at quite a different era of communication. The World Wide Web invented in August 1991 was not available for another 7 years. There was no usable form of electronic mail and graphic design was hand-drawn by pen, ink, a set square and a Burmester Set of three French Curves. These were the 'good old days'.

Communication was via expensive interstate telephone calls from the sole phone provider Telecom. Mobile phones had arrived in 1981, but were the shape, size and mass of a brick and exorbitantly expensive. Well out of the reach of teachers. So, the drill was a monthly call from the National



Director to each state and territory coordinator to discuss matters ASISW and progress, a get together at CONASTA XXXIII, Perth May 1984; and a regular mailing – by snail mail. An Apple IIe computer running a very early word processing program called Zardax and an Epson dot matrix printer were state-of-the-art in communication used by ASISW. I even managed to teach myself how to use an incredibly clunky mail merge in order to produce personalised letters to the State Coordinators. It was important that each felt a valued part of the ecosystem as they were vital to the success of the event in each state. This took significant groundwork, however it paid off in the end. A sense of *Team* was established.

A letter to all Australian Principals dated 3rd February 1984 announced the arrival of ASISW later in the year. The dates were 15th – 19th October 1984 and the event ‘will be marked by school-based activities that will focus community attention on science in the school curriculum, promote the image of science generally and emphasise that science is fun.’ It was suggested that schools might arrange ‘displays, project work and presentations by students. An open day or evening might also be considered, thus involving parents and the community.’ A range of resource material were also offered. The October date was agreed after significant consultation in order to ensure the week suited all state/territories i.e. no holiday periods. It was sufficiently clear of end-of-year exams and gave us a lead-time to promote and organise activities. The mid-October date ultimately worked well.

In order to both promote the event and to raise much needed funds it was decided to produce a range of resources. These included stickers with catchy science slogans e.g. “Let’s Discover Science”, badges, an A3 wall planner and T-shirts. (See below)

Materials Available: (Please photocopy and send with payment)

	<u>Unit cost</u>	<u>Quantity</u>
• stickers "Science in Schools Week"	20 cents
"We Dig Science"	20 cents
"Science is Natural"	20 cents
"Science is Experimenting"	20 cents
"Let's Discover Science"	20 cents
Order stickers in multiples of 10. Include \$1.00 postage		
• badges "Science in Schools Week"	40 cents	
• planner, March 84-Feb.85, A3 size	25 cents	
• T-shirts, Science in Schools Week*	\$ 5.50	
• windcheaters, Science in Schools Week*	\$18.00	



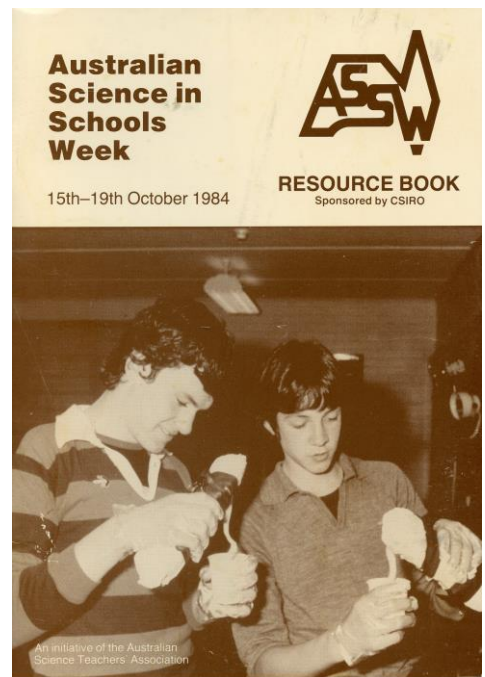
One of the problems identified early was that of producing items that contained dates. As professional sporting club merchandisers will attest, dated items are wonderful in order to ensure avid fans make fresh purchases every year, however unsold out-of-date items have effectively zero value. I took the view that year specific items were necessary, but some generic materials that could be retailed every year would ensure over-runs retained their value. This debate was held mainly between myself, the National Director, and the ASTA Treasurer of the day D’arcy Walsh. I have to say that D’arcy contributed hugely to ASTA and played his role as a mean-spirited, penny-pinching treasurer with acuity. In reality, we actually worked well together, but the debates over large run size (cheaper unit price) {Don} versus minimising the overall capital outlay to ASTA {D’arcy} were a constant source of friction. We worked it out.

Exposure and promotion of the event was critical to its success, particularly in the first year as there was no historical precedent for the event. i.e. No one knew what it was. It seemed axiomatic that, if this was to be an activities-based event we needed activities. There was also a range of existing school science events that we worked to coordinate with ASISW so as to not fragment the energies of the broader science community. These were outlined in the article “Australian Science in Schools Week – it’s Time” Don Hyatt, ASTJ Vol 30 (2), Aug. 1984, pp 6-17. It must be said that the other organisations were highly enthusiastic about embracing and working with ASISW.

- Queensland Student Science Contest
- Oliphant Science Awards (S.A.)
- Peer Teaching Scheme (A.C.T.)
- Science Talent Search (W.A.)
- Physics Youth Lecture Series (Vic)
- A.C.T Science Fair
- Science Talent Search (Vic. week previous)
- Northern Territory Science Prize
- UNISCAN results announcements

What to do? How to circulate the information? With the contemporary restrictions of communication, we were limited to dealing directly with ASTA members. No mass e-mailing distribution lists to all schools at the click of a button. We were restricted to cumbersome and expensive snail-mail and this limited us to the ASTA membership which was around 6500 at the time. Anyway, it was most likely that the most committed science teachers would be ASTA members and these were the ones who would drive the event in schools.

We needed activities. In fact, we needed *focused* activities to distinguish them from simply doing ‘sciency stuff’ as had always been done in schools. The week had to be seen as special. We needed an efficient way of getting the activity ideas into the hands of science teachers. OK, we need a Resource Book crammed fully of exciting ideas. The ASTA Treasurer is heard groaning discontentedly at the cost of producing a Resource Book, so we need sponsors.



In the first year we had a handful of sponsors:

- CSIRO – through their CSIRO Science Education Centres in Melbourne and the newly established Adelaide centre. CSIRO typeset and printed the entire Resource Book run at no cost to ASTA.
- Lego – who had recently released their *Technique 1* series sponsored the Poster Competition, plus took out some paid advertising.
- BHP and CRA sponsored the ASISW Planner; A3-sized printed on light buff-coloured card (right). Each had marked the key dates for the BHP Science Prize and the CRA Fellowship. Naturally Australian Science in Schools Weeks was prominently marked, as was the range of resource material available.
- Heinemann Publishing donated a number of book prizes.

AUSTRALIAN SCIENCE IN SCHOOLS WEEK
1984 PLANNER

SPONSORS: Australia's BHP CRA Limited

	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
MARCH	18	19	20	21	22	23	24	25	26	27	28	29
APRIL	1	2	3	4	5	6	7	8	9	10	11	12
MAY	1	2	3	4	5	6	7	8	9	10	11	12
JUNE	1	2	3	4	5	6	7	8	9	10	11	12
JULY	1	2	3	4	5	6	7	8	9	10	11	12
AUGUST	1	2	3	4	5	6	7	8	9	10	11	12
SEPTEMBER	1	2	3	4	5	6	7	8	9	10	11	12
OCTOBER	1	2	3	4	5	6	7	8	9	10	11	12
NOVEMBER	1	2	3	4	5	6	7	8	9	10	11	12
DECEMBER	1	2	3	4	5	6	7	8	9	10	11	12

Science in Schools Week 1984 (S.A.)
Science in Schools Week 1984 (Vic.)
Further copies of Planner \$2 each.
Further copies of Resource Book \$5 each.
All 1984 for packaging & postage (over \$1000)

Australian Science in Schools Week 1984
10 cents each

SCIENCE IN SCHOOLS WEEK
VIC. ENG. SCIENCE
SCIENCE IN SCHOOLS
WEST. AUSTRALIA
SOUTH AUSTRALIA
NORTHERN TERRITORY
NEW SOUTH WALES
QUEENSLAND
TASMANIA

• Northern Territory • Victoria • South Australia • Australian Capital Territory
• New South Wales • Queensland • Western Australia • Tasmania

• Mark on Term dates and Day's public holidays
• Mark on Term dates and Day's public holidays
• Australian Science in Schools Week, P.O. Box 102 Parkville, VIC., 3052.
• Further enquiries with orders. Cheques payable to Australian Science Teachers' Association.
• Australian Science Teacher's Journal and Science Journal
• Each State/Territory has its own Co-ordinator to whom enquiries can be directed.

An initiative of the Australian Science Teachers' Association.

- Stansen Scientific. Supplier of science equipment for schools. Resource Book paid advertising.

In launching the Speakers Scheme we aimed to connect students with *real* scientists. It was mainly directed at the Primary School level. The Royal Australian Chemical Institute (RACI) was particularly supportive and established their *Chemists in Schools* scheme directed at the Primary Schools. This involved practising primary teachers conducting training sessions with groups of RACI members to present chemical activities in schools. The challenge was to give the scientists an insight into dealing with students at their own level. A terrifying prospect for some who rarely had to communicate beyond their peers. The most favourite activity was the popular red cabbage indicator experiment. CSIRO and the Australian Institute of Physics (AIP) also threw their support behind the project and encouraged their scientists to speak at their local schools. It was estimated that around 60 000 students were visited by practising scientists in the first year alone.

The poster competition was sponsored by Lego and run by Alan Pepper a member of SASTA Council. The themes were *Curiosity* and *Science for Living* and attracted a wide range of creative entries. The prizes of Lego Technic for both the students and the winning schools were quite valuable. In addition, Heinemann Publishing provided a range of book prizes.

RACI inaugurated its National Chemical Analysis Competition during ASISW. This titration competition required superior skills from senior chemistry students in the completion of a particularly tricky titration. Nationally prizes of \$250, \$100 and \$50 were offered to the winning schools, plus significant bragging rights.

Designated Activity Days

The most significant innovation, however was that of “Designated Activity Days”. For each of the five days during ASISW a different activity was designated to take place. This gave teachers specific focus, rather than simply be presented with a myriad of potential activities to be performed at a time of their choosing. In the first year of 1984 these were:

Monday	15 th October	Balloon Launch Day
Tuesday	16 th October	Land Yacht Day
Wednesday	17 th October	Camera Day
Thursday	18 th October	ESP Day
Friday	19 th October	Time Capsule Day

The Designated Days activities were outlined in most detail in ASTJ Vol 30(2), Aug. 1984. pp.9-14.

Day 1: Balloon Launch

What better way to launch a new event than to launch a few balloons, but with a twist? But first, we did have a national launch in Canberra. The ASISW National Director with representatives of ASTA and other organisations were joined by a couple of hundred school students to launch 201 balloons at 12.00 noon (EST) on Monday 15th October to mark the start of the first ever Australian Science in Schools Week. Why 201 balloons? Because on 21st November 1783 the Montgolfier Brothers flew

the world first manned untethered flight near Paris. It was close enough to the 201st anniversary to celebrate being 37 days early. In reality the 201st year date error works out to be 0.05% which, for a school science experiment, was deemed to be insignificant.

From an organisational viewpoint we also concerned ourselves with launching 201 helium-filled foil balloons and the matter of radar and air traffic issues, but were assured that the 'big sky' effect was in operation and it would not be a problem. Happily, it was not and all went according to plan.

AUSTRALIAN SCIENCE
IN SCHOOLS WEEK

Balloon type/size:

LAUNCHED FROM (PLACE): (DATE)
AT (TIME): (DATE)
BY (WHOM):

FOUND AT (PLACE): (DATE)
AT (TIME): (DATE)
BY (WHOM):

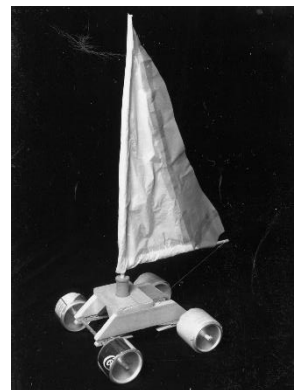
This balloon was launched to celebrate Australian Science in Schools Week. Your cooperation in completing details on the other side and posting it to the address below would be greatly appreciated.

Send to: Don Hyatt, National Director, ASISW
CSIRO Science Education Centre
PO Box 26, HIGHETT, VIC 3190

Simultaneously, balloons were being launched from school yards and parks around Australia. Two forms of lift were described: hydrogen generated from aluminium pellets/foil and sodium hydroxide; or constructing a hot air balloon using a dry-cleaning bag and cotton wool soaked in methylated spirits. The resource provided an image (see above) of a tag that could be attached to the balloon in order the finder might notify the launcher of its time and location of final descent. Many balloons were never found, and presumably not all those found were reported, however we received many reports of happy students hearing back for the finder. Few matched the author's daughter who had her tag launched from Beaumaris, south east of Melbourne found by a dairy farmer about 150 km away in Gippsland about two hours after the launch. An interesting practical example of jet streams in that exercise.

Day 2: Land Yacht Day

Instructions for a basic land yacht were provided and students were encouraged to race their yachts to test their designs.

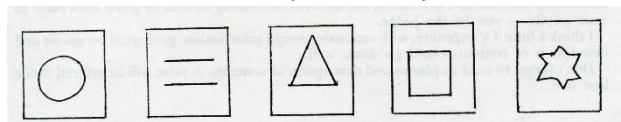


Day 3: Room Camera Activity

This was a giant version of the pinhole camera described by author Rick Twardy. A tricky activity but with a huge potential for scientific consideration. The activity was estimated to cost about \$25 for the film and developer.

Day 4: E.S.P. Experiment

"Do you know what E.S.P is? Do you believe in E.S.P.? If you find this question interesting, would you like to join in an experiment with the whole of Australia?" So began the promotion of the National E.S.P. Experiment. Looking back, this was a unique scientific investigation into a belief that is wholly unscientifically proven. With the assistance of the Victorian Skeptics and James Gerand an experiment was designed. Zener Cards (see the five shapes above) provided the basis of the investigation. In all, about 4000 students nationally (through their school science teacher) volunteered to take part. Schools were randomly divided into 'Senders' and 'Receivers'. i.e. about 2000 Senders and 2000 Receivers. The experiment took place at 12.00 noon (EST) on Thursday 18th October 1984. A few minutes before the designated time the sealed envelopes were open. The Receiver class students were given a strip of card containing the five Zener images (right). The Sender class students were all given the same



one image. Let's say it was the Star image. At 12.00 noon the Senders had to focus and concentrate on the Star image for 3 minutes. Concurrently, the Receivers were to concentrate and mark the image that most strongly came to mind. At the conclusion of the time the teachers collected the Receivers cards and forwarded them back for statistical analysis.

The outcome? The exact figures are lost in the mists of time, however there was a VERY SMALL bias towards the 'correct' answer. Unfortunately, it was statistically insignificant. I say *unfortunately* because the Skeptics were offering a prize of \$10,000 for anyone who could prove any form of pseudoscience such as E.S.P. The prize is now \$100,000 and remains unclaimed some 36 years later. E.S.P proved to be unverifiable

An interesting outcome of publishing the findings was that I received a letter of complaint from the Rev. Powell, Church of Living God. His objection was that E.S.P. should not, and could not, be subject to testing. I politely replied that we ran a legitimate, professionally designed scientific experiment in an objective manner at arm's length. Of course, we could run such an experiment based on scientific principles. He wrote a second time, but this time without receiving a reply for a busy National Coordinator. A bit of investigation revealed that Rev. Powell's church believed in 'talking in tongues' and his deity communicated the babblings of partitioners via something akin to E.S.P. To him, E.S.P. was a matter of faith, thus not for scientific investigation. Clearly, we had to agree to disagree.

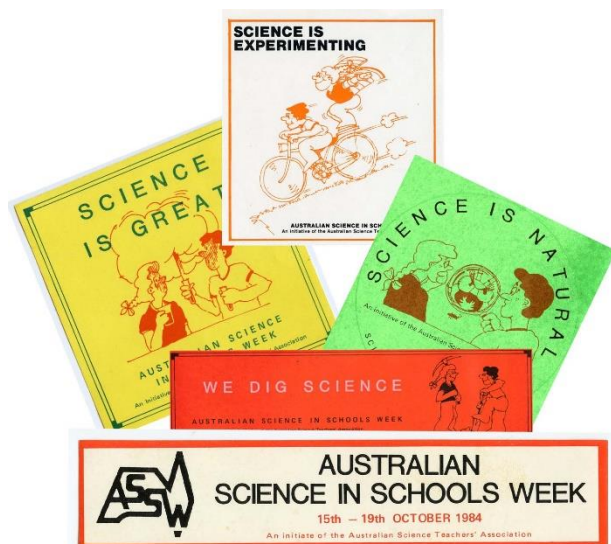
Day 5: Designing a Time Capsule

This seemed to be a great idea for the first of what we hoped would be many ASISWs. The container construction, contents and location clearly require considerable creative thinking and we hope that there are still some ASISW Time Capsules out there somewhere, maybe to be opened on a significant date. This was developed further in 1985 – see below.

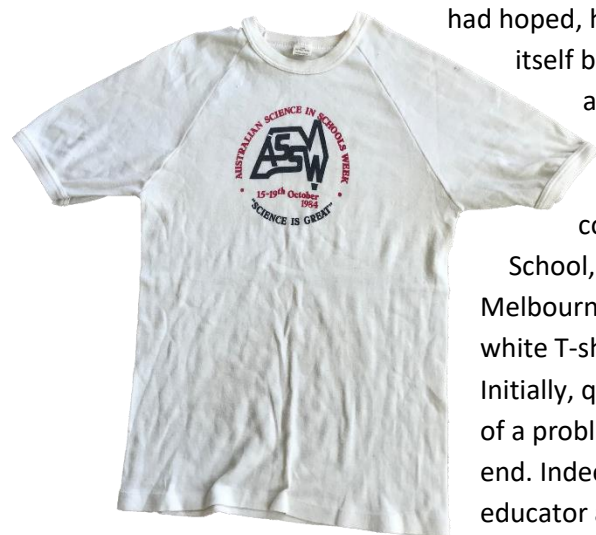
Resources in 1984



The provision of ASISW specific resources were conceived both to create an identifiable presence within schools in the leadup to the event, but also to generate much needed revenue for ASTA whilst keeping costs to schools to an absolute minimum. Stickers, badges, a planner and T-shirts represented the range of offerings. We even had some free bookmarks for distribution. We had a clearly identifiable logo and the must-have



phrase 'An initiative of the Australian Science Teacher Association', so the call went out to the state coordinators and others for some slogans. Over the following two years all sorts of imaginative suggestions came forth, but for the first year we had to start small. In all, seven stickers were produced in 1984. The artwork for four of these was provided at no charge to ASTA by CSIRO. In the first year, understandable inexperience in the field of sticker design (we were science educators, not graphic artists), plus the near zero-budget meant that the stickers were not as eye-catching as we



Lyons was

both the printing of T-shirts and the management of the ESP Competition.

had hoped, however schools did not seem to mind. The badge almost designed itself being only the name, date and logo; and with sponsorship from BHP and CRA the Planner was produced at no cost to ASTA. T-shirts were

screen-printed at no cost to us as part of an art

course at Brighton Tech

School, a bayside suburb of

Melbourne. We only had to pay for the white T-shirts on which to screen print.

Initially, quality control did prove a bit

of a problem, but we got there in the

end. Indeed, Brighton Tech science

educator and STAV Councillor Daryl

of great assistance in 1984 through



Interdisciplinary science and student involvement. Students at Brighton Technical School, Victoria, silk screening the ASISW T-shirts.

A tale of two stickers

One plans for every possible occurrence, but sometimes Murphy's Law: "If something couldn't possibly go wrong, someday it will" will come into force. Every experience science teacher knows this well; be it in the form of failed science demonstrations, practical activities that don't work, excursions gone wrong; the list is endless. Creative problem solving is a skill acquired by necessity by the experienced science teacher. Before noon on the day of the release of the very first stickers I received a call from a prominent, leading feminist, STAV Council member. At the time I was chuffed that we had finally produced what had taken months of organisation, however I received an earful. The concern was in relation to the 'Science is Experimenting' sticker. I wondered what was coming, but knew that the concern would be gender-related. I posited that my instructions to the artist was than every image should contain an equal number of males and females. (See the four stickers above. It was true) Check! It was explained to me that the in the illustration on the offending sticker, the boy was doing the *active* riding and the girl acting as pillion passenger. In my defence, to this day I believe that the girl *is* doing the 'science' in the image as she was the one wearing the wings and the boy is simply providing the transport. There was, in fact, gender inclusiveness.

In the following year of 1985 another sticker barely saw the light of day. I must say that as a chemistry teacher I did not find the slogan 'Physics is Bohring' anything other than amusing. The Australian Institute of Physics (AIP) did not share that view and I received a stern phone call from their President. The AIP view was that it sent the wrong message to students and the broader community. After a very brief negotiation the AIP agreed to fund a replacement sticker. I personally dropped the box of "Bohring" stickers into AIP HQ at Clunies Ross House in Parkville, near Melbourne University and photographed the ceremonial burning of the first sticker (right). Unsurprisingly, the remaining

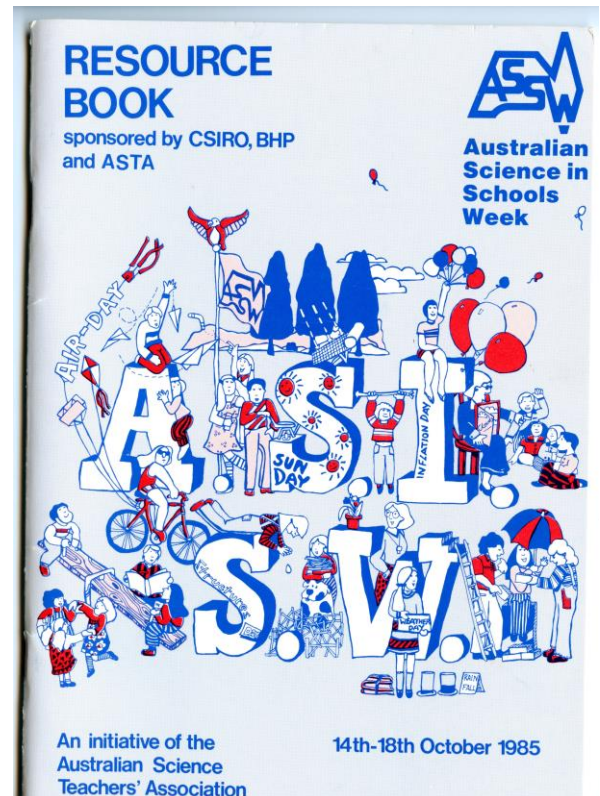


stickers have never again seen the light of day. A couple of years later we produced a “Physics is Phantastic” sticker which, legend has it, upset the English teachers more than the Physicists.

ASISW 1985 – Improved, Bigger and Better

At the ASTA Council Meeting associated with CONASTA XXXIII in Perth, May 1984 – some five months prior to the running of the first ASISW – it was decided that things seemed to be progressing well enough to commit to a second year of ASISW in 1985. This was a great vote of confidence in the ASISW executive team. By the end of the first ASISW in October 1984, most of us involved were looking for a bit of a break, but at least looking forward to the second year we now had a structure within which we could work, a vision as to where things were going and the form and range of associated activities. We also had a range of existing sponsors and suppliers where previously there had been none; and established a coordinating link with a variety of science related activities managed by other organisations.

The task we set ourselves was to improve on areas that needed attention and expand the range of activities. Working on a shoestring budget in 1984 placed limits on available resources and this was no more evident than in the artwork used for our promotional material e.g. The Resource Book, Posters, Stickers etc. The second year also provided a significant advantage when approaching potential



sponsors in that that we now had an *identifiable product* to promote the sponsors’ interests. In 1984 we were simply working on promises and the goodwill associated with the ASTA name. Which, in itself, was not insignificant. Whilst this was fine for CSIRO, BHP, CRA, Lego, Heinemann and Stansens

– all organisation that ASTA and/or schools had existing dealings via competitions, material/equipment provision or publications – it limited us to a small universe of sponsors. We needed to go farther afield to seek the cash and ‘in kind’ support that was required to expand the reach of ASISW. One thing I learned early in the piece was that that no matter how altruistic an organisation or company might be, they will eventually require some sort of benefit for their organisation. This can take a variety of forms: from an increase bottom line to simply promotion and/or goodwill awareness of their organisation e.g. CSIRO. i.e. Ultimately, you have to offer sponsors *something*.



AUSTRALIAN
SCIENCE IN SCHOOLS WEEK
14 – 18th October 1985

NEWS SHEET

Australian Science in Schools Week is almost upon us again. In schools right throughout Australia, teachers, students and parents are working in preparation for what should be another fantastic year – even bigger than 1984. A real breakthrough has been achieved this year with the national primary science journal “Investigating” going to all primary schools, thus ensuring that news of ASISW activities is reaching all levels of schooling and enabling even more students to participate in the arranged activities.

Australian Science in Schools Week is more than a week of fun. It is a week of learning, that is becoming more relevant in style with ever increasing emphasis on technology education in schools. Importantly, ASISW intends to draw together many of the “loose strings” – science events that are scattered throughout the yearly school calendar. This year we have been fortunate in receiving the co-operation of many groups and Associations and the following activities have been organised by states to coincide with the ASISW activities.

ACT	ACT Science Fair Prep Teaching Scheme	TAS	Science Talent Search
QLD	Annual Science Contest	W.A.	Science Talent Search Energy Essay Competition Sound and Light Spectacular
S.A.	Fun Day on Monday Olympic Science Awards Primary Science Fair	N.T.	Science Prize Competition
N.S.W.	Physics is fun N.S.W. Science Fair Official Balloon Launch	VIC.	Science Talent Search RACI Speakers in Schools

AUSTRALIAN SCIENCE IN SCHOOLS WEEK
An initiative of the Australian Science Teachers' Association

There were also big changes to the national organisation structure and state coordinators, with only two of the original state coordinators (Tasmania and NSW)

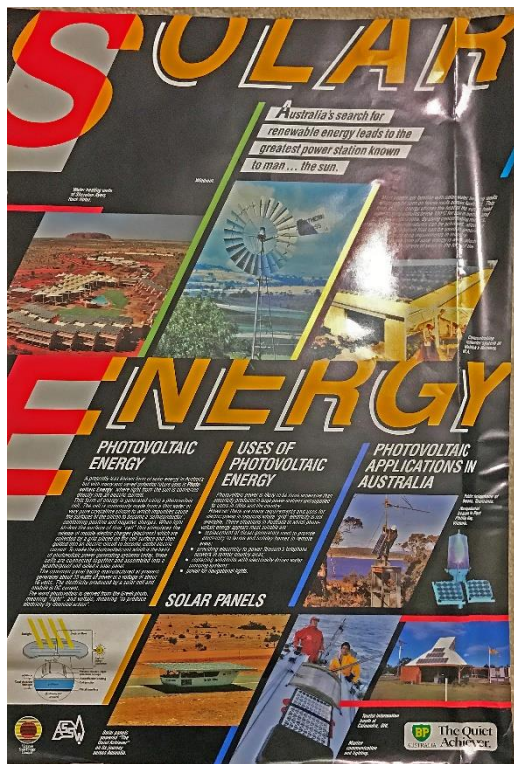
continuing into the second year. In order to enhance and grow that management structure nationally four directors were appointed to manage national activities: Resource Book (Brenton Honeyman, ACT), Poster Competition (Alan Pepper, SA), Speakers Scheme (Stephen Manahan, NSW) and Services (Bob Ross, Victoria). As a sweetener for the sponsors a *National Advisory Committee* was established consisting of the members of the main sponsors i.e. CSIRO, BHP Ltd, CRA Ltd, BP Australia, Shell Australia and the UNISCAN Testing Centre. The role of the National Advisory Committee was honorary with the members advice limited to within their area of support. Happily, all of the original 1984 sponsors continued their support into the second year.

The concept of five Designated Days was a significant success in 1984 with positive feedback from schools. Whilst no formal evaluation was performed after the first ASISW almost all of those involved in organisation were experienced and hand-on participants, so feedback as to what worked and what didn't was quickly established and areas for development or improvement identified. It was therefore decided to maintain and develop the original basic structure; and to improve and grow the week. As we were determining the Designated Day activities it occurred to me that with five days and five letters in ASISW we might match the activities with the initials of ASISW. Hence for 1985 we might have: Monday **A**ir Day; Tuesday **S**un day; Wednesday **I**nflation Day; Thursday **S**tructures Day; and Friday **W**eather Day. Inflation Day could allow us to retain the very popular balloon launch concept and Sun Day (on Tuesday!) was supported by BP Australia who were strongly pursuing and promoting BP Solar at the time, so effectively sponsored Sun Day. These activities, were outlined in the Resource Book along with a myriad of other ideas residing within the 44-page book. The 1985 edition of the Resource Book was, importantly, more visually appealing than the somewhat drab monochrome 1984 version. It was again sponsored by CSIRO, but with support from BHP, and ASTA members who provided the content. This time it was printed by a commercial printer in the ACT. The bicolour blue and red printing provided the opportunity to provide highlights and, with a greater lead time, we were able to include the comical artwork produced for the 1985 stickers throughout the text. The Resource Book was improving. One great idea (ASISW Resource Book 1985 pp.39), that sadly never came to fruition was an agreement with the CSIRO Antarctic Division to deposit an ASISW Time Capsule into the Antarctic ice where it could be placed in a glacier and be expected to emerge in 1000 years, or alternatively placed some 1600 km inland and simply dropped on the ice where it would be expected to be buried at a rate of 2 m per year and emerge at some considerable time into the future. Sadly, the cost and mechanics of producing a Time Capsule shell suitable of withstanding the time and pressures proved too much. Two very thick hemispheres of stainless steel welded together and filled with an inert gas seemed the best bet, but we shall never know. Maybe the time line was a bit too long.

As a side note, it was clear in 1985 that combining the letters of ASISW as Designated Activity Days would be limiting, however with a bit of ingenuity we did manage to stretch to idea out for at least 4 years.



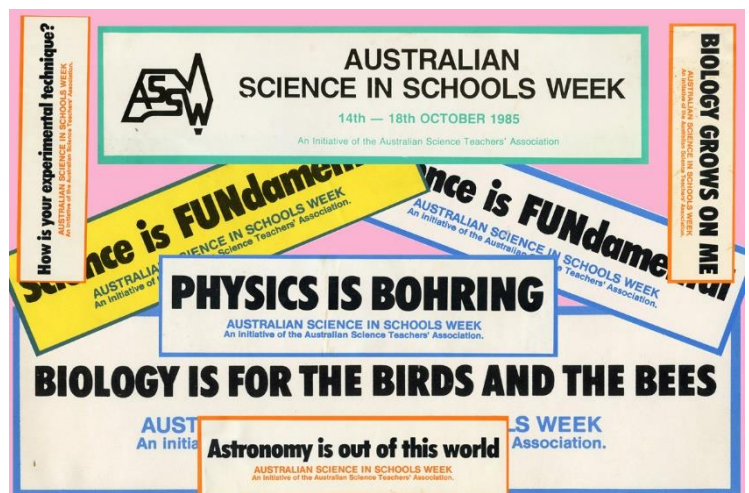
The second year of 1985 saw three significant additions through the support of two new sponsors and the stepping up of an existing sponsor. Shell Australia had been approached for support in 1984, but did not respond. They were approached again in 1985 and came up trumps. Shell was the major sponsor of the Singapore Youth Science Fortnight and Shell South East Asia had requested a school delegation of a teacher and two students (year 10 or 11) to attend. Hence the Shell Science Fellowship was born and ran for several years. Because of the extremely short timeline for selection there was a rushed process run through each state leading to the selection of students Chris Cole (Queensland) and Blair Trewin (ACT) – now Dr Blair Trewin with the Department of Meteorology - plus Don Hyatt, ASISW National Director on a decision made by Shell. The representatives were flown to Singapore in order to spend a week participating in an internationally representative event at the very impressive Singapore Science Centre. As a bonus to ASISW, Shell offered the services of professional artist and illustrator John Dickens for no cost. This turned out to be a massive gain for us over the next few years as his artwork was first class and adorned much of the ASISW material produced. However, it took another year to perfect colour selection, which was advised by CSIRO from 1986 onwards after which we could say that the stickers had reached as close to perfection as we were likely to get.



BP Australia came on board supported by the Victorian Solar Energy Council (VSEC) through their strong interest in promoting BP Solar. The promotional A3 poster (left) was produced in conjunction with VSEC and produced specifically for ASISW. In addition to producing the poster, BP provided support material for 'Sun Day' and promoted a range of solar-related activities. In addition, BP sponsored a 12 page "SUN DAY" Solar Activities Booklet prepared by Jeff McIntyre of the Victorian Solar Energy Council. In addition, the VSEC sponsored a Solar Competition in which students were required to design, build and test a



hot water solar collector. Certificates were given to all participating students.



Promotion to schools, announcing the return of ASISW in 1985, took the form of an A5 ASISW News Sheet (above) that was circulated to all schools. The News Sheet was in a four-page wrap-around

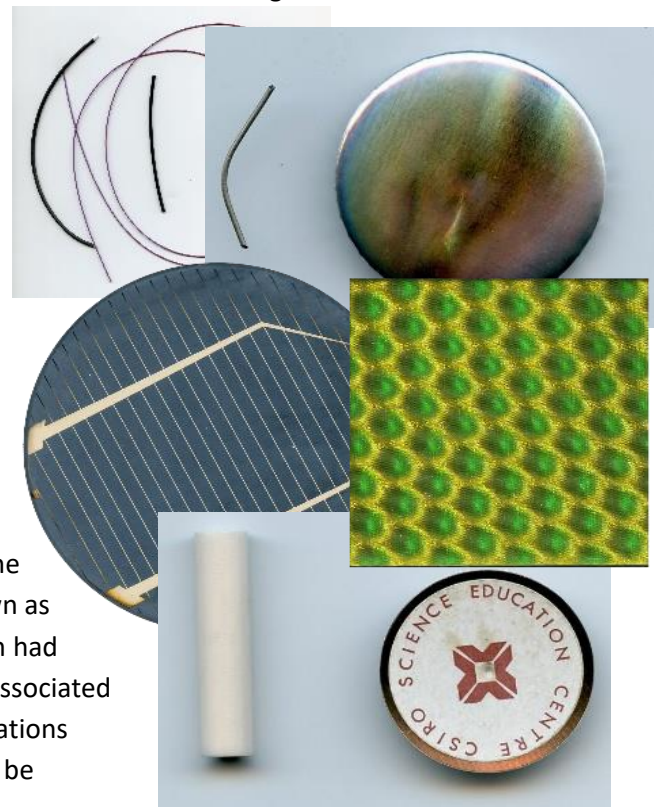
format, promoting the Designated Activity Days, linked activities with other organisations, state contacts and the expanded range of resources, including the new and innovative High Tech Kit (HTK). This was also the first year of the Primary Science Newsletter "Investigating" that facilitated the promotion of the event to primary schools. With a range of new resources, we were ready to present another successful

year. One very simple addition was the introduction of a dated

Certificate of Participation and *Certificate of Merit*. These were purchased in their thousands by schools in order to recognise the efforts of their students.

The High Tech Kit is worthy of separate mention. The first of two was produced in 1985 and a second in 1986. Having a background in materials science through a Metallurgy degree and being seconded as an Science Education Officer to the first CSIRO Science Education Centre in Melbourne I was fortunate to be in a position to come across a variety of new generation materials with which I was fascinated and thought to share this

through ASISW. The concept was to source a range of hard to get, materials of scientific interest and make them available to science teachers along with an explanation of the the science behind these materials. These, in turn, could be used by teachers to stimulate interest in science with students. The number of High Tech Kits (HTK) was limited to 500 with each HTK individually numbered. CRA came to the party and sponsored the packaging and the printing of the booklet, but most of the contents were scrounged or purchased in bulk from overseas suppliers. A 24-page Information Booklet was written and illustrated to explain the science behind the materials. Included items of scientific interest were: the newly developed Australian toughened ceramic, known as PSZ. The wonder ceramic Partially Stabilised Zirconium had the hardness of a ceramic, but lacked the brittleness associated with a typical ceramic, so could be used in impact situations without fracture; shape memory alloy Nitinol (it could be



deformed and returned to its original shape when dipped in hot water); *Biolights* a bioluminescent



kit produced in Australia specifically for ASISW by Gene Link Australia; a highly efficient photovoltaic cell (about 10% efficient); a holographic badge, bimetallic jumping disk (it 'jumps' as it cools down when 'popped' and placed on a surface), a Kinetic Box optical illusion and samples of optical fibres. These were all cutting edge stuff in 1985. ASISW resources awaiting delivery to schools 1985. (Left)

1986 – a year of consolidation



The fact that ASISW would be an annual event was no longer in doubt, so we moved to 1986. By this time the format was well established, but there was the constant desire to innovate and improve. Of the 14 members who comprised the National Executive Committee only two remained from 1984: Don Hyatt, National Director; and Brenton Honeyman who took over the role of Speakers Scheme Director in 1985. The National Group was expanded to six in order to diversify the workload, bring in new energy and provide specific expertise: Don Hyatt (National Director),

Resource Book Editor (Helen Burfitt, ACT), Activities Director (John Hunt, Q'ld), Publicity Officer (Ross Kingsland, ACT), Speakers Scheme Director (Brenton Honeyman, ACT) and Poster Competition Director (Liz Jacob, NT). The demands of the role were significant as were the expectations of the tyrant that ran the show, so it is not surprising that, along with the considerable demands of classroom teaching, there was such a significant rate of attrition.

Poster Competitions

CATEGORIES ARE:
Primary and Secondary **REQUIRED**
It should be 30 cm x 40 cm in size, the ASISW logo, be colourful, original and contain a message.

TOPICS:
Science Beyond 2000
and
Science And You

Contact your State Co-ordinator for filing dates. Closing dates are around 15th September. Posters should be sent to State Co-ordinator.

Speakers Scheme

Contact your local pharmacist, fireman, policeman, manufacturer or any other person who can demonstrate something amazing how many people use science in their occupation.

Primary schools – invite one of the high school science teachers to demonstrate some acid/base indicators or any simple demonstration. You would be amazed at the interest generated.

Balloon Launch

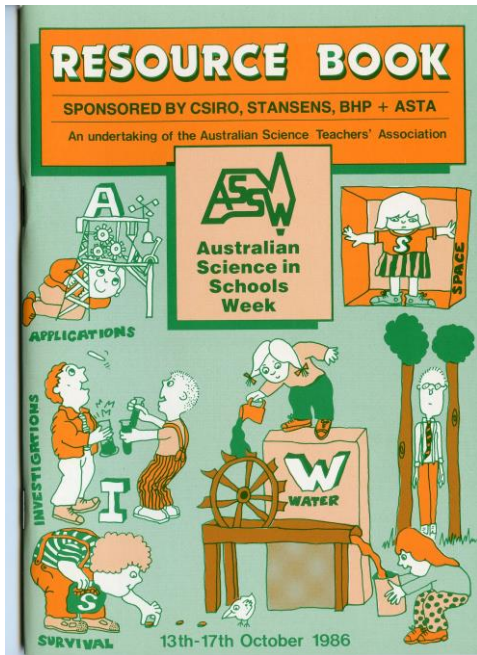
This exceptionally popular activity involved the launching of tens of thousands of lighter-than-air balloons in 1985. It's back again, so don't miss out! Details are in the Resource Book. Tags on your balloons will enable us to co-ordinate flight-paths for a national ASISW weather study.

SHELL SCIENCE FELLOWSHIP

Both in 1985 and 1986 two Australian students and a teacher have been awarded the Shell Science Fellowship to attend the Singapore Youth Science Fortnight in May/June. This prestigious award is sponsored by Shell Australia and is run in conjunction with the Australian Science Teachers Association.

Students should complete an "application of a scientific principle" i.e. produce an invention or a model. This is achieved by entering the appropriate section in the State Science Talent Search or Science Fair. The top entries will be then judged at a State and National level on the basis of the "application", the quality and the suitability of the invention and the student's presentation.

In order to announce and promote the upcoming 1986 ASISW Shell Australia sponsored an A3 poster promoting the week, highlighting the Designated Activity Days, other national activity events and their own ASISW-related Shell Science Fellowship.



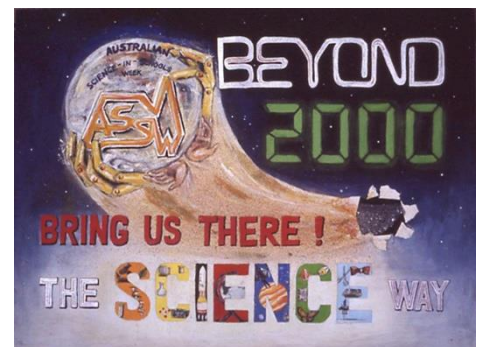
The Resource Book grew to 48 pages and we managed to eke out another set of Designated Activity Days matching the letters of ASISW. With the selection of very diverse topics such as 'Application' 'Water' and 'Space' there was plenty of scope for finding an activity to suit any scientific interest. Stansen Scientific joined CSIRO and BHP as the sponsors of the Resource Book. The National Advisory Committee membership included representatives from CSIRO, CRA, Shell Australia, BP Australia, Stansen Scientific

MONDAY 13 OCTOBER	A APPLICATIONS DAY
TUESDAY 14 OCTOBER	S SPACE DAY
WEDNESDAY 15 OCTOBER	I INVESTIGATIONS DAY
THURSDAY 16 OCTOBER	S SURVIVAL DAY
FRIDAY 17 OCTOBER	W WATER DAY

and the UNISCAN Education Testing Centre.



The Poster Competition grew with the themes: *Science Beyond 2000* (well, it was still 14 years away!) and *Science and You*. (Entries pictured below.) The Speakers Scheme was reinvigorated by Brenton Honeyman; and a new competition was launched sponsored by Lego, the "National Investigating



Competitions for Primary Schools". In the third year we also asked teachers for their feedback and suggestions for the future of ASISW (ASISW Resource Book 1986 pp.21-23). In addition, CSIRO announced the launch of their Double Helix Science Club whose members were likely to be pretty enthusiastic about ASISW. The all but universal support of the broader scientific community was quite amazing and contributed immeasurably to the success of ASISW.

Three of the poster competition entries 1986 (above and right).





The 1985 High Tech Kit sold all 500 units in no time flat and raised over \$5000 of much needed operational cash. Happily, Phil Allen of the CSIRO Science Education Centre, SA offered to produce a second HTK for 1986. Again, the limited edition of 500 contained items of scientific interest and a booklet explaining the science and again was supported by CRA.

behind each Items included (see right): a 2D/3D Hologram, jojoba seeds (at that time seen as a viable and sustainable, arid land crop capable of producing sustainable biofuel), a wired solar cell, time release capsules, thermochromic film sheet (provided by the then under construction Questacon in Canberra), an integrated circuit, titanium oxide powder and some sun control film (which was rarely used on buildings in 1986).

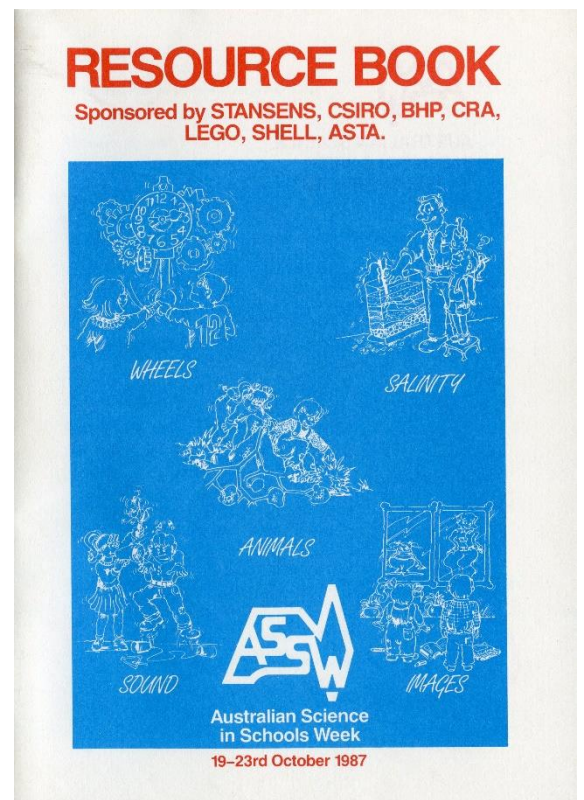


Because of the nature of sourcing highly interesting and cutting-edge technology for the time, the 1986 HTK was the last in the series. As in 1985, it sold out rapidly and provided much appreciated funds for the operation of ASISW.

1987 and Beyond

Early in 1986 I advised ASTA that 1986 would be my third and final ASISW as National Director. I had started the event from scratch, established an operational structure and filled critical positions with motivated and highly talented individuals. Everything was humming along, there was a great sense of *team*, I had tapped every resource I could find for either sponsorship or some sort of service. I had put everything into the management of the event that it seemed I, personally, was unlikely to take ASISW further. It was time to go in order to provide the opportunity for someone else to injected their own ideas and I sought a seamless transition to the next National Director.

The role was actually taken on by a triumvirate from Queensland: Keith Money, John Hunt and Bob McAllister, with Keith being the main go-to guy. Liz Jacobs, Ross Kingsland and Brenton Honeyman continued in their national roles at Poster Competition, Publicity and Speakers Scheme Directors; whilst I slipped into the role of Services Liaison i.e. Producing stickers, badges, T-shirts etc. No person remained in the same position from 1984.



The Resource Book grew to 54 pages with the printing moving to Queensland and was sponsored by: Stansens, CSIRO, BHP, CRA, Lego, Shell and ASTA. The five Designated Activity Days maintained their 'ASISW' link for the third successive year (see Resource Book 1987 cover above). Ashton Scholastic and Heineman got behind the Poster Competition and it grew to include both computer generated and traditional posters; plus was divided into Primary and Secondary Divisions. Topics were: *Science Beyond 2000*, *Science and You*; and *Science and the Quality of Life*. The 1987 Mouse Trap Grand Prix (ASISW Resource Book 1987 p.48) that required the construction of a vehicle powered by a mouse trap was a massive success. Student (and teachers!) love constructing vehicles using mouse traps as the power source. Rat traps were canvassed on the basis the 'bigger is better and



more exciting, but discouraged from a safety perspective.



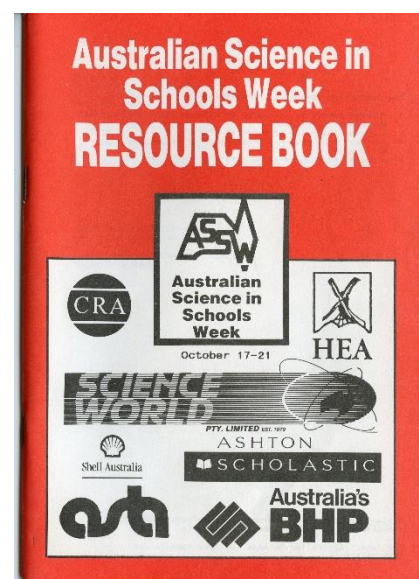
'Images' and 'Wheels' Kits for the two respective Designated Days were made available to schools at very low cost.

The ASTA Treasurer finally got his way and had the date removed from the yearly badge. He reasoned that dated badges and other items could not be sold in future years and left over stock would have to be written off, however the illustration on the 1987 badge did surreptitiously depict the five activity days for 1987: Animals, Salinity, Images, Sound and Wheels. Stickers from the previous years were continued, but the dated ASISW annual sticker was replaced by a multi-circular sticker from which you could peel off six small circular stickers for each of the five Designated Activity Days, plus the dated sticker with the ASISW logo.

In 1988 the National Director role passed to Ian Pattie (Tasmania). Ian had been the ASTA Executive Officer for a number of years and remained in that position whilst managing ASISW. Nationally: Publicity, Services Liaison and Speakers Scheme remained with Ross Kingsland (ACT, Don Hyatt (Vic) and Brenton Honeyman (ACT). Of the eight State/Territory Coordinators, five remained from the previous year.

The National Advisory Committee grew in number to nine persons: A.E. Stansen and Co. (2 members), CSIRO (2 members), BHP Co. Ltd., Shell Company of Australia, Heineman Publishers, Ashton Scholastic and CRA.

The 1988 Resource Book grew to a massive 60 pages and as always was jammed full of activities and ideas provided willingly by ASTA members. The Designated Activities Days were: **A**utomation, **S**oil, **I**ndustry, **S**afety & Health and **W**aste thus maintaining the four-year sequence of matching the ASISW initials with the day.



The Poster Competition was sponsored by Shell, Heineman, and Ashton Scholastic and again offered traditional and computer-generated posters at both Primary and Secondary levels. Topics were: *An Automated Device for Better Living, Soil Conservation* and *Avoiding Waste Production*.

Beyond 1988 and some Reflections

At the conclusion of ASISW I stepped away from my connection with ASISW. I have always believed that once having stepped down from a role you should allow your successor to get on with the job without interference. ASTA flew me to Queensland to spend a weekend training up my successors and I remained in the role of 'Services Liaison' as I had developed a network of suppliers who were, necessarily Victoria. It was therefore useful to maintain that low profile role. I lost track of ASISW management after 1988 and was rather occupied as President of STAV.

Looking back, ASISW gave me the rare opportunity to lead an amazing group of dedicated science educators. Together we crafted something worthwhile out of an idea. Interestingly, former ASTA President Brenton Honeyman bought the idea to me initially and was still contributing at the end of my time, such was his personal commitment and support for the event.

I like to think that ASIW subsequently morphed into National Science Week, however I was not involved at that time so have no direct knowledge in that regard. That said, I do not believe that they can be totally unrelated, so I am happy to make the claim.

My strongly held belief at the time was that this was a national science week aimed at encouraging school students to participate in science activities. Apart from the National Balloon Launch in 1984 I never sought to have some sort of grand event or annual launch with important dignitaries making speeches. We directed our efforts to supporting the thousands of teachers who were working with tens of thousands of students forging a greater interest in science. More than once did I have discussion with sponsors who were willing to support ASISW, but could only see that support in the form of yet another competition. Sometimes I prevailed, often I didn't. There was a certain narrowness of vision from which the non-educator could not escape. Nevertheless we were receptive to any organisation that would support ASISW.

Finally; the big question: "Why the constant obsession with resource?" When ASISW was conceived in 1983 there was neither a budget line nor any concept as to the costs it was likely to incur. ASTA was not flush with funds, so the hope was to break even over the years. It goes without saying that all of those involved gave their time willingly and free of charge. That is the often unappreciated expectation of dedicated teachers, but it should be said. During that time sponsors covered the costs of the Resource Book every year, plus a little bit of excess. Competitions were initiated and sponsored at no cost to ASTA. Artwork was provided to us at no cost. Companies, associations and organisations came to the party to coordinate events and activities to coincide with ASISW. However, there are operational costs – school mailings, administrative postage, interstate phone calls (in those days communication was difficult and expensive) – letterheads, etc that do not fit under 'sponsorship', so we needed a source of cash generation. This came in the form of 'Services' i.e. stickers, badges, T-shirts, certificates, High Tech Kits, Activity Day Kits. Ultimately, these generated a significant amount of cash that flowed back to ASTA. In the end ASISW both contributed financially to ASTA as well as being the most important student-focussed project with which ASTA has been involved. This was very much a win-win scenario that benefitted Australian science

education and that had to be good for the future of our country. As the material constantly reminded us, ASISW was “An initiative of the Australian Science Teachers Association”.

Don Hyatt: B. App. Sc. (Metallurgy), Dip. Ed., M.Ed.

Don was Foundation National Director of ASISW 1983-6 and remained on the National Executive to 1988. He served as STAV President 1987-9 and Councillor 1979-91 and was ASTA Councillor for 8 years.

Don was given an ASTA Distinguished Service Award in 1991 and was awarded the Chemistry Education Association Chemistry Teacher of the Year. He received the Shell Science Fellowship in 1985 and a CRA Fellowship in 1987. He was a member of the ASTA National Science Standards Committee that developed criteria for the determination of Highly Accomplished Teachers of Science (HATS).

Professionally Don taught in Victorian State Government Secondary schools and has long since retired from paid work as an Assistant Principal of a large secondary college. He describes himself as ‘a teacher’, and specialised in chemistry and science. His professional career focus centred on curriculum and teaching & learning, spending 3 years in the Victorian Curriculum and Research Branch as NewChem Project Education Officer and 4 years at the CSIRO Science Education Centre, Melbourne. He has been author, co-author and editor of a number of VCE Chemistry texts and support materials.



Since retirement, Don taught in England for 12 months and has subsequently spent 6 years as the Victorian President of the Australian Shareholders Association and 5 years on the ASA Board. He remains a lifelong active member of the Victorian and Australian Skeptics, promoting an evidence-based approach to decision making with which science is quite congruent.



He says the years have not changed him. See pictures mid-1984 (left) August 2020 (right).

He sees himself as a lifelong learner and maintains a strong interest in science, education and rational decision making.

Reflections from Rick Twardy

Rick Twardy was ASISW founding years Tasmania Co-ordinator and significant national contributor. Teacher at Clarence High School, Tasmania; and subsequently long-term Education Officer at the CSIRO Parkes Radio Telescope, NSW.

After a few years of teaching I had attained a personally meaningful sense of “mission” as to why I was teaching science (...and mathematics, and common-sense, to boot), and was known to a few colleagues as being inclined to think outside of the four walls of the class room. So, I jumped at the chance to become involved with a novel idea called *Australian Science in Schools Week* when approached by then President of Science Teachers Association of Tasmania, the late Ian Winter, to be the Tasmanian Coordinator, to cooperate with a National Coordinator – someone called Don Hyatt. (Over thirty years later I still occasionally visit Don). Being prone to improvise in front of a class, it

suited me just fine to throw a few things together for the goal as and when he asked. I like to think that as a result of reading his compiled resource book, some classes somewhere did pursue their own questions of curiosity and did in fact build a room-size camera with kids inside during Australian Science in Schools Week. Of the schools I cultivated around Tasmania, with Don's guidance, most were highly supportive. I know I benefited greatly, and permanently, joining a team excited to find another way present the benefits and enjoyment of science in schools. In Hobart, for a week, members of the public in Centre Point interacted with science-y displays and demonstrations with the over-riding message that anyone can be scientific – regardless of age, experience or sophistication: just satisfy your curiosity by asking, reading, thinking or doing, while retaining a healthy sense of scepticism about your answer.

Rick Twardy
August 2020