

Appendix 7 | Summary of teacher feedback on *Plants in Action* unit

Plants in Action

Stage 2, Life and Living

Trialled in term 1, 2005

Number of annotated units returned from teachers = 19

Number of teachers who taught this unit = 30

GENERAL COMMENTS

- The curriculum resource unit was seen as an excellent resource that was comprehensive, and also flexible enough to be adapted to suit individual contexts.
- The literacy links were considered in high regard.
- The time taken to complete the unit was a concern, caused by too many activities within lessons and lessons within the unit. It was noted that Term 1 has many activities which need to be included, and this has implications for classroom programming.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • An excellent teaching resource. Everything needed was there and I could adapt as I saw fit. • The literacy aspects were excellent. Relevant to activities right across the curriculum. Science became the lynch pin of teaching program. • This unit is an excellent resource. It engages children and allows for diverse learning styles. The cooperative teaching/learning strategies allow children to take charge of their learning. • Unit was enjoyed by children. Highlights – bean seed germination, recording growth, Garden Buddies. • Science took over our classroom, which was great, but I wasn't prepared for it to go into every facet of work. • I followed this program very closely and was impressed with the detail and organisation. There was very little that didn't work for the students. The explanations were very helpful and necessary. Given that this program is for the 'masses' there is plenty in it to get science into the classrooms at last. 	<ul style="list-style-type: none"> • An excellent unit but far too long, especially for Term 1. • Presentation of unit fantastic, but repeats itself too often. • Unit too long. Chose not to do SOSE but still worked on unit into Term 2. Feel there could be fewer activities in each lesson. • Suggested time for sessions way out, especially if explicit teaching is to occur with literature component. • Didn't start until week 3 after whole school program, although this allowed teacher to know students better. • Too much content for one term. Felt I glossed over a lot of the content.

SPECIFIC STRATEGIES and FOCUSES

Unit Overview

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">Excellent. I could teach from this.	

Unit Outcomes

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">Good to see outcomes presented so clearly.	

Background information

- Considered an important resource.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">Fantastic having the background info, it is very important to have this.Photocopied and laminated illustrations to use as reference material.	<ul style="list-style-type: none">Suggest a pronunciation chart for scientific terms.

Assessment

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">Good explanation of Formative assessment.	

5Es Model

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">Good explanation of 5Es strategy throughout the unit.	<ul style="list-style-type: none">The contents page should show the 5Es.

Equipment

- Considered a necessary resource.
- Replication of equipment list within lesson, and then in a complete unit list at the end of the unit, was unnecessary.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">Very necessary.	<ul style="list-style-type: none">Don't need to list before a lesson and at the end of unit.

How Tos

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">• An excellent idea for this program.	

Cooperative learning

- Cooperative learning had a positive impact on classroom management and was enjoyed by students.
- Suggestions about ways to modify the cooperative learning approaching were also included.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">• Great for classroom management.• Kids enjoyed teams and the idea of allocated job.	<ul style="list-style-type: none">• Children did not like staying in one team for a whole unit.• Badges are daggy. Would not use any sort of badge.• Add another team member – <i>scribe</i>-responsible for group writing, and which would means less groups.

LINKING SCIENCE WITH LITERACY – Literacy focuses

Science journal

- The science journal provided a purpose and context for writing, and teachers could adapt it to suit their individual situations.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">• Daily observation of bean in journal very successful. Writing improved from 1 day to the next. Learnt how to make real scientific observations using real scientific language. Daily basis made task more relevant.• Great idea. Kids loved it.• Developed planned focus questions for science journal writing. Drew final choice in journal as a mind map.	<ul style="list-style-type: none">• Science Journals involved a large amount of time. Lesson 2 took two hours.• I put more emphasis on the talking/listening than the writing.• Did not model journal entry. Ran out of time. Revised the essential requirements of a journal entry.• I didn't get into the Science Journal bit but would have loved to have mastered it.

KWLH chart

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">• Students really into this which surprised the teacher.• KWLH chart is great.• They knew a lot. Kids used sticky notes to add to chart.	<ul style="list-style-type: none">• Change 'What we know' to 'What we think we know'.• Need specific focus for this unit (how grow and change) to be more obvious.• Went off track – what we know, what we want to know.

Word Wall

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">• Worked very well. Children really engaged.	<ul style="list-style-type: none">• Word Wall good to begin with, but wish there was more time to keep it going.

INVESTIGATION SKILLS

Investigation Planner

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">• Useful	<ul style="list-style-type: none">• Too complex; designed a simpler form.

Writing investigation questions

STRENGTHS	WEAKNESSES
Spent time on this.	

LESSON BY LESSON REVIEW

Lesson 1 Mystery Bag

- Good level of engagement, discussion and introduction to cooperative groups.
- Took a long time.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Lots of good discussion from 'uses of plants'. • Brainstormed as a whole class; worked well. • Teacher adapted lesson to suit the stage the students were at. • Excellent cooperative group activity. • This worked out really well. Turned it into a game. Time stopped teacher from making individual bags. 	<ul style="list-style-type: none"> • The journal entry was not as good as expected. Too much information for students to include in their recount. • Students had trouble working out products derived from plants. Needed teacher help. • Response to the 'plant-use' brainstorm was limited. • Excellent cooperative group activity but took too long. Journal writing takes so long in year 3. • I felt there was too much writing in lesson. I modified and did whole class.

Garden Buddies

- Good for engaging students and building links with their families and community.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Garden Buddies took ages to set up but very worthwhile. • Biggest success. Well supported by families. Books looked great. Shared pages daily. • Inspired kids from the start. Loved idea of camera. Used project money. Would have to budget for this. • The kids loved it and were so excited. • Garden Buddies worked really well. 	<ul style="list-style-type: none"> • If home buddies have been done before, students get bored. • To get the extra resources takes a lot of time, as does the initial set up of program. • Class Roster – way too hard. Not all notes returned. Didn't do the information share.

Lesson 2 What goes where?

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Lots of good discussion generated from partner discussion about plant life-cycle. • Students very engaged – had good prior understanding. • Most were quite aware of cycle and parts. Good to see an example of KWLH chart. 	<ul style="list-style-type: none"> • Hard to keep students on track re KWLH chart, second column. • Lesson went for longer than anticipated. • Lesson went into three lessons. • Illustrations were confusing. • Discussion took up time.

Lesson 3 What's inside a seed?

- The hands on component of the lesson was very engaging.
- Challenges in the unpredictability of the seeds, and implications from the students' existing science and literacy skills.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Lesson very successful. Much language and discussion from 'Living, Not Living, Not Sure' activity. • Resource sheets with this lesson were excellent. • Fantastic background information. • The best activity. Hands on just great. • Time the only problem but I wouldn't change anything. • Step 4 created great discussion. 	<ul style="list-style-type: none"> • Children had no previous experience of science. There was some pre-teaching needed for my slow learners. • I needed more than double the time. • I had to do several lessons on the structure of the procedural text before using it with the experiments. • No time for predictions. • Lots of embryos fell or broke off.

Lesson 4 Baby Bean's germination

- The hands on component of the lesson was very engaging.
- Challenges in the unpredictability of the seeds, and implications from the students' existing science and literacy skills.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Excellent activity. Works well and is quick. Chn loved watching the seed grow almost in front of their eyes. • Each person had a cup and seed of their own to encourage responsible watering. • Demonstrated scientific drawing criteria. • Using the cups and pegs was perfect from an organisational point of view. • Linked with measurement in Maths. • Arranging seeds easier if each child has own cup. 	<ul style="list-style-type: none"> • Fungal problems water problems with seed growing. • Kids had trouble reading the procedural text. Kept asking teacher what to do. • Teacher did steps one at a time with the whole class to overcome the difficulty children had doing this. • Hard to keep moist over a hot weekend. • Read a book instead of procedural text. • Need a resource sheet here.

Lesson 5 Patterns in our plants

- The opportunity to reflect on and represent learning in the context of sharing with others was well received.
- Some of the literacy representation options (especially the summary) were too difficult for this Stage.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • The representation options were great but needed more time, other lessons, to prepare the students. Teacher chose the graphs and PowerPoint. • Sharing the representations with another class was a Wow! Children had experience of sharing.(6) • Representations were excellent exercises for the children. • Children enjoyed the scientific words. • Modelled summaries. Chn share orally and then write. Lesson took a long time. • <i>Living, Not Living, Not Sure</i> a fantastic activity. 	<ul style="list-style-type: none"> • Far too much for one lesson. • Session too long for formal presentations. Had oral discussion summarising points. Teaching time taken up by carnivals etc. • Need 3-4 sessions plus explicit teaching how to write a summary. It was difficult. • Difficult to assess individual if all work is in a group. • None of my students had ever heard of a summary.

Lesson 6 Investigating conditions for growth

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • I managed to do this lesson much better than lesson 4. Discussion more important. Leave involved recording to Stage 3. 'Plant Expert' was keen to talk and question rather than look at books. • Used Investigation Planner with sticky notes. Got some good ideas. Students in groups. • This lesson worked really well. It was the first major investigation this group has done. • The investigation planner made it easy to set up. 	<ul style="list-style-type: none"> • I feel this session could be optional or interchanged with lesson 4. • Question writing proved difficult. Students wanted their plans to live. • Time became a factor and lesson not finished. • Forgot to start the lesson with step 1 and went straight to variables. It really made them miss the point about variables.

Lesson 7 Reporting on conditions for growth

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • This lesson was outstanding. • Presentations were more oral. Too early in the year for multimedia presentations. Posters were popular. • A terrific activity. Literacy time was spent on this for 2 weeks – 40 minutes per day. 	<ul style="list-style-type: none"> • We didn't do this very well. The children haven't had much science in earlier grades. They'll get better. • Children had difficulty identifying variables even after using planning chart – I think this may have confused them. Need to do many many investigations before children will be able to work through this process with confidence and understanding.

Lesson 8 Botanical artists at work

➤ A very engaging task.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Students particularly enjoyed doing this activity. • The children did an amazing job on their drawings. • Children really liked this lesson. One student discovered he was very good at this. • Very good activity. Children vocal and enthusiastic. • Looking at flower parts was excellent. • Think, Pair, Share worked very well. • Children found this very interesting. 	<ul style="list-style-type: none"> • All children used the same flowers. • Time was the only problem.

Lesson 9 Flowers, fruits and seeds

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • <i>Rosy Dock</i> – lively discussion on introduced plants and animals. • Observed seeds in fruit and made fruit salad. • We tried to get 100 types of seeds. • We had them in snap-lock bags all over our science table. • What seed is this chart? Was great. • 'Private Life' video – excellent. 	<ul style="list-style-type: none"> • Drawings on the whole not very good. Observation skills need practise. • Not done.

Lesson 10 Plant life-cycle production

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Interactive crossword a great resource. • The life-cycle jumble was a good evaluation tool. The KWLH chart was a great evaluation. • Had to carry this session into Term 2. Students surprised teacher with the amount of information they had retained. All understood what the cycle represented. Used key words from the Word Wall for write up in books. • A Fantastic CD. • Step 10: Student reflection – very good. 	<ul style="list-style-type: none"> • Had to teach notetaking for Step 9. • Not done. • Had great ideas for drama production but ran out of time. • This seems a rather simplistic activity to repeat – plant life-cycle- unless most students struggled with it initially.

Resource sheets

STRENGTHS	WEAKNESSES
<p>RS 8/9: Excellent table for recording.</p> <p>RS 15: Excellent language extension activity. Great for dictionary skills.</p> <p>RS12: Great.</p> <p>RS13: Students particularly enjoyed doing this activity.</p>	<p>RS11: This planer was too complex for my group. I designed a simpler form for our investigations.</p> <p>RS6: Plant life cycle – hard to fit squares into a circle.</p> <p>RS6: Seed and flower picture needs to be clearer.</p> <p>RS12: Add common name.</p>