Part F

Chapter 4
Assessment Administration
Guidelines
Chapter 4
Assessment administration guidelines

Before conducting the assessment

Make yourself familiar with these guidelines. They must be followed closely if the results of testing in your school are to be comparable with the national data.

Time Allocation

The assessment will take a total of 2 hours to complete:

- 10 minutes to explain the assessment and distribute the materials
- 45 minutes to complete Part A (Objective Assessment)
- 20 minutes break between tasks
- 45 minutes to complete Part B (Practical Tasks).
Materials required

- **Students**
  - Objective Assessment: Pen/pencil and eraser
    One booklet per student
  - Practical Tasks: Materials as specified for group work
    Pen/pencil and eraser
    One booklet per student

- **Teachers**
  - Objective Assessment: Administration guide
  - Practical Tasks: Administration guide
    Materials as specified for group work.

**Group work**

The Practical Tasks have been prepared on the assumption that students will work in groups of three for the activity component of the tasks.

If classes are used to working in groups of this size then normal class groups should be used.

If they are not, students will need to be assigned to a group of three. For the National Assessment groups were constructed by random assignment to avoid friends in ‘like ability’ groups working together on the Practical Tasks.

To construct groups in this way, count the number of students in the class who are present and will be participating in the Tasks. Divide by three to obtain the number of workgroups. If there is a remainder, up to two groups may have four members each.

Arrange the students in alphabetical order by surname from ‘A’ to ‘Z’ and assign them to groups by counting them off, e.g. a class of 22 students would have seven groups of three students and 1 remainder.

Hence Student 1 is assigned to Group 1; Student 2 to Group 2; Student 3 to Group 3; Student 7 to Group 7; Student 8 to Group 1; Student 9 to Group 2; etc.; Student 22 may be assigned to any group.

**Assistance**

When completing the assessment, students should be given every opportunity to demonstrate their understandings. You can read part or all of a question for a student if he or she is experiencing difficulty in reading it. It is important, however, not to interpret the question for the student.

Students should be encouraged to attempt all questions in the assessment. If a student finds a question difficult, suggest that he or she skip it and move on to other questions. The student can return to the original question if time permits.
National Science Literacy School Assessment

2003 PSAP Released Items

ASSESSMENT ADMINISTRATOR’S MANUAL

This manual contains selected extracts from the full version of the PSAP 2003 Administrators Manual to enable the classroom teacher to replicate the conditions under which the national sample was administered.

Sections removed relate to background information from the National Assessment and the administrative procedures for the securing of the test and the return of materials for central marking.

Australia

Part A: Objective Assessment
Part B: Practical Tasks (Craters)
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONDUCTING THE ASSESSMENT SESSION</td>
<td>2</td>
</tr>
<tr>
<td>THE ASSESSMENT DAY</td>
<td>2</td>
</tr>
<tr>
<td>DISTRIBUTING MATERIALS TO THE STUDENTS</td>
<td>2</td>
</tr>
<tr>
<td>TIMING THE ASSESSMENT SESSIONS</td>
<td>2</td>
</tr>
<tr>
<td>READING THE SCRIPT</td>
<td>3</td>
</tr>
<tr>
<td>SUPERVISING THE SESSION</td>
<td>3</td>
</tr>
<tr>
<td>ENDING THE SESSION</td>
<td>3</td>
</tr>
<tr>
<td>TEST ADMINISTRATORS SCRIPT TO BE READ FOR THE SESSIONS</td>
<td>4</td>
</tr>
<tr>
<td>COMPLETING THE OBJECTIVE ASSESSMENT</td>
<td>9</td>
</tr>
<tr>
<td>THE PRACTICAL TASK SESSION</td>
<td>10</td>
</tr>
</tbody>
</table>
1. CONDUCTING THE ASSESSMENT SESSION

The Assessment Day

It will be necessary to set up the room and assessment materials. The materials you will need are:

- this manual, open to the script for administering the session;
- a watch or clock;
- your ‘Survival Kit’ – spare assessment booklets, spare pencils, spare rulers and so on;
- a clock visible to the students; and
- books or other reading materials to lend to students who finish the assessment early.

Distributing Materials to the Students

You may distribute the materials either before the students arrive, as described below, or at the beginning of the session.

Timing the Assessment Sessions

It is expected that the assessment will take approximately 2 hours to administer, including time to read the instructions, distribute the materials and allow for student breaks between the objective and practical sections of the assessment. The timing of the assessment is as follows:

- Reading the instructions and distributing the materials, completing the student information page, normal class routine issues etc will take 10-15 minutes;
- The Objective Assessment session will take approximately 1 hour, with a break before commencing the practical task;
- The Practical Task should take about 45 minutes. It should be given on the same day as the Objective Assessment after a short break. However if this is not possible, it can be given on a different day; and
- Collecting the materials and ending the session will take 3-5 minutes.
Reading the Script

The script you will need to administer the sessions begins on page 7. To ensure that all assessments throughout Australia are conducted in the same way and that all students hear the same instructions, the script must be read **WORD-FOR-WORD** without omissions or additions.

Supervising the Session

You are responsible for monitoring the assessment session and the following points need to be observed:

- Once the assessment instructions have begun, it is advisable not to admit other students to the session.
- Make sure that all students understand how to record answers. You may read questions to students but must not help the students with the interpretation of any of the items in the Assessment Booklet. Students should not leave the session unless it is necessary.
- Students finishing early should be encouraged to review their work. Students who are completely finished may be permitted to read a book.

Ending the Session

After you have completed the session, collect the Assessment Booklets. All Assessment Booklets must be accounted for before the students are dismissed. Thank the students for their participation and dismiss them according to school policy.
INTRODUCING THE STUDY

The only text to be read to the students is in shaded boxes and must be read word for word. The un-shaded text is background information and instructions for the test administrator.

Say:

This class is taking part in an assessment based on a study called the NSLA Project. Its goal was to find out what students your age know about science. About 18,000 students throughout Australia have attempted this test. The results of the study help education authorities and governments determine what students are learning. By doing the very best you can on this test you will help your teacher to plan science programs for your class.

Distribute the materials, if you have not done so already, then say:

You should have an Assessment Booklet on your desk. Please do not turn it over yet. Put up your hand if you do not have an Assessment Booklet and a pencil.

Give students who do not have all the materials the booklet and/or a pen or pencil as necessary.

Then say:

If you find you need a ruler, or an eraser or pencil sharpener during the session, please raise your hand and I will assist you.

Resolve any other problems with the distribution of the material. Remind students that they should not have anything on their desks apart from their Assessment Booklet and the equipment they need for doing the assessment.

Do not admit any more students to the session.
BEGINNING THE TEST SESSION

To make sure that all students doing this test throughout Australia receive exactly the same instructions, I will be reading them to you.

If you need another pencil during the session, please raise your hand.

Please turn over your Assessment Booklet and look at the cover page.

I am going to read these directions aloud, while you read them to yourself.

**Instruct the students to fill in their names on the cover page of the test.**

- Remind them to PRINT neatly when filling in their names in the spaces provided
- Ensure that the students do not move onto the Practice Questions until you are ready to commence the assessment.
COMPLETING THE OBJECTIVE ASSESSMENT

In this booklet, you will find questions about science and general problem solving. Read each question carefully and answer it as well as you can.

You may find some of the questions in this assessment easy and some difficult. Answer as many questions as you can.

Do not start working through the test questions yet. You will be told when to begin.

First you will do some practice questions so you know what kinds of questions to expect in the test.

Now we will do some practice questions together. There are four types of questions in the Science Tasks.

Look at Practice Question 1.

Type 1 is Multiple Choice.

In these questions you must shade in a square next to the correct answer.

For example, try this one:

Q1 The colour of blood is

☐ blue
☐ green
☒ red
☐ yellow

Shade the square that you think gives the correct answer.

Allow time for the students to answer Practice Question 1.

The answer is ‘red’ so we would shade the third square.

Check that students have shaded the square for ‘red’.

Deal with any questions or problems.

Look at Practice Question 2.

Type 2 is Circle the Word or Words.

In these questions you must circle the word or words which are correct.

For example:

Q2 Circle the words which are correct.

An elephant is (a bit bigger / much bigger) than a human.

Now circle the words that you think are correct in the sentence.

Allow time for students to answer Practice Question 2.
The answer is ‘much bigger’ so we would circle those words in the sentence.

Check that students have circled ‘much bigger’ for the second part.
Deal with any questions or problems.

Look at Practice Question 3.

Type 3 is a One or Two word answer.
In these questions you only need to write one or two words.
For example:

Q3 On a clear, sunny day the colour of the sky is ____________.

Allow time for students to answer Practice Question 3.

What answers would you suggest?

Respond to the student answers as they are given. Typical answers would be 'blue', 'azure'.
Remind the students that answers that repeat information in the question would not be rewarded. e.g. 'clear'.
Deal with any questions or problems.

Look at Practice Question 4.

‘Explain’ means give a full explanation for your answer.

Type 4 is a Long Answer.
You may need to write two or three lines or sentences to give the best answer.
For example:

Q4 What happens to a balloon when you blow it up? Explain.

Allow time for students to answer Practice Question 4.

What answers would you suggest?

Respond to the student answers as they are given. Typical answers would be 'it gets bigger', 'it explodes'.

7
Encourage students to provide well considered and complete answers such as: ‘the air pressure causes the rubber to expand and the volume of the balloon increases. If the air pressure in the balloon is greater than the rubber can withstand then the balloon breaks’.

Explain that answers that give more information may be rewarded with higher marks.

Explain that there are clues in the layout of the questions about how many marks can be achieved. For the longer answer questions like Practice Question 3 and Practice Question 4, the number of lines is a guide to how much you will need to write.

Deal with any questions or problems.

Are there any questions about how to record your answers?

Please STOP here.

DO NOT TURN TO THE NEXT PAGE UNTIL YOU ARE TOLD TO DO SO.
PART A: OBJECTIVE ASSESSMENT

You have now finished the Practice Questions.
You will have 1 hour to complete the first section of the Assessment Booklet. We will have a break before we start the Practical Tasks.

You will work on your own to answer the questions in the booklet.
If you make a mistake and want to change your answer, erase it and write your new answer.
You should try each question but don’t spend too long on any one question. If you don’t know the answer to a question, try the next one. If you have time, go back to any question you didn’t finish.
Do not start until I tell you to. Are there any questions?

Now turn to the next page.
Use your time carefully and do as much as you can. Please begin.

Note the start time for the Objective Assessment.
Use a watch or clock to time the session.
Monitor the students.
After 55 minutes say:

You have about 5 minutes to go.

After 60 minutes, say:

Please stop. Close your booklet and turn your booklet over. We shall now have a break.

The break does not have to be timed exactly and it is at the discretion of the teacher, to align it with normal school or breaks. It should be no less than 20 minutes.
PART B: PRACTICAL TASKS

TEACHER PREPARATION

‘Craters’

This task will take approximately 45 minutes for the students to complete. It comprises 10 minutes for instructions, distribution and collection of materials, and 35 minutes to complete the task (20 minutes for the Part A group work and 15 minutes for the Part B individual work). If a significant number of students appear to need more time, this is acceptable.

Before the task, the teacher must:

• Read carefully through this guide and prepare the task materials.
• It is ideal if the equipment can be set up beforehand on a table at the side of the room. One student from each group can then get the equipment when told to do so.
• Ensure that the students will have pens, pencils, erasers, rulers and the following equipment:

  per group of 3 students:
  1 sheet of newspaper
  1 30 cm ruler
  4 patty pans (about 6-8 cm diameter)
  3 marbles (‘normal’ 1 cm diameter size)
  1 plastic spoon
  1 empty plastic cup
  1 cup flour

  teacher only:
  teacher needs 1 sieve for the class, and
  ¼ cup powdered drinking chocolate for each group of students (about 3 cups in total).

It may be advisable for the teacher to sieve a small amount of the powdered drinking chocolate onto the flour in the patty pan for each group of students when required.

• Arrange a venue where students will not be disturbed (Students work in groups of three for Part A (the practical task) of the task and individually for Part B).
• Organise a quiet activity, such as reading, for any children who finish early.

ARRANGING GROUPS FOR THE PRACTICAL TASK

The practical task has been prepared on the assumption that students will work in groups of three for the activity component of the task. The assignment of students to groups is discussed in detail on page 35.
PREPARING THE STUDENTS FOR THE TASK

After the break, when the students are seated quietly in the assigned groups, say:

Today you will be doing a science practical task about ‘Craters’. You will work in your new group for the Practical Task A. You must work alone for Practical Task B when you write your answers to the questions.

First we will record your name and the group number you have been put into in the booklet on page 18.

Now we will do some practice questions together.

There are three types of questions in the Science Tasks.

Look at Practice Question 1.

Form A: Practical

PRACTICE QUESTIONS

There are three types of questions in the Science Practical Tasks.

Type 1
Complete a results table.

Q1  Sam measured the height of three students.

150 cm  160 cm  170 cm

Kim  Tran  Marika

Put this information into this table.

<table>
<thead>
<tr>
<th>Person</th>
<th>Height (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kim</td>
<td></td>
</tr>
<tr>
<td>Tran</td>
<td></td>
</tr>
<tr>
<td>Marika</td>
<td></td>
</tr>
</tbody>
</table>

Fill in the table to answer Practice Question 1 in your own booklet.

Allow time for the students to answer Practice Question 1.

Check that students have filled in the table correctly showing Kim 150 cm, Tran 160 cm and Marika 170 cm.

Answer any questions and deal with any problems or issues.
Look at Practice Question 2.

**Type 2**
Look at an information table to answer the questions.

<table>
<thead>
<tr>
<th></th>
<th>Time (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kim</td>
<td>20</td>
</tr>
<tr>
<td>Tran</td>
<td>25</td>
</tr>
<tr>
<td>Marika</td>
<td>30</td>
</tr>
</tbody>
</table>

Kim was the fastest. What was his time? ________________ seconds

Complete your answer for Practice Question 2 in the space provided in your own booklet.

Allow time for students to answer Practice Question 2.
Check that students have written 20.

Answer any questions and deal with any problems or issues.

Look at Practice Question 3.

‘Explain’ means give a full explanation for your answer.

**Type 3** is a Long Answer.
You may need to write two or three lines or sentences to give the best answer. For example:

Q3 What happens to a balloon when you blow it up? Explain.

Allow time for students to answer Practice Question 3.

Respond to the student answers as they are given. Typical answers would be 'it gets bigger', 'it explodes'.
Encourage students to provide well considered and complete answers such as: 'the air pressure causes the rubber to expand and the volume of the balloon increases. If the air pressure in the balloon is greater than the rubber can withstand then the balloon breaks'.

Explain that answers that provide more information may be rewarded with higher marks.
Explain that there are clues in the layout of the questions about how many marks can be achieved.
For the longer answer questions like Practice Question 3, the number of lines is a guide to how much you will need to write.

Deal with any questions or problems.
You will do Part A of the booklet in your group. You will need to read through the instructions carefully and do the task as a group. You may discuss the task quietly as a group while you are completing the task.

If you make a mistake and want to change your answer, erase it and write your new answer.

You should try each question but don’t spend too long on any one question. If you don’t know the answer to a question, try the next one. If you have time, go back to any question you didn’t finish.

Do not start until I tell you to. Are there any questions?

Deal with any questions.

**STARTING THE STUDENTS ON THE TASK**

**Begin the assessment task when the students are ready.**

Have one student from each group get the equipment from the side table.

Before you start the task, we will check that each group has all the materials and I will read through the task.

Using a student test booklet, read through the list of materials and check that each group has everything.

Then read through the task procedure.

You may start Part A (Group work) of the Task now.

You have 30 minutes to complete Practical Task A. Use your time carefully and do as much as you can. Please begin. Do not start Practical Task B until I tell you.

Note the start time for the Practical Task A.

Monitor the students.

After 25 minutes remind the students that they should be nearly finished with the practical activity. After 30 minutes (provided all the students have finished the activities) ask the students to sit at their desks and individually answer the questions in Part B of the booklet.

Answer the questions in Practical Task B (Individual work) now.

You must work on your own to answer the questions.

You have 15 minutes remaining to complete Practical Task B.
As the end time approaches, watch for students who appear to have finished and remind them to check their work. Once you are satisfied that a student has finished all that he or she can do, you may give him or her a book or magazine to read.

After a total of 45 minutes say:

Please stop.
Thank you for doing your best on this assessment.

Monitor the students. At your discretion you may allow them a minute or two extra to finish answering the question they are working on.

CONCLUDING THE ASSESSMENT SESSION

Collect all the materials.
Dismiss the students according to the policy of the school.