WORK SAMPLE PORTFOLIOS

These work sample portfolios have been designed to illustrate satisfactory achievement in the relevant aspects of the achievement standard.

The December 2011 work sample portfolios are a resource to support planning and implementation of the Foundation to Year 10 Australian Curriculum in English, Mathematics, Science and History during 2012. They comprise collections of different students’ work annotated to highlight evidence of student learning of different aspects of the achievement standard.

The work samples vary in terms of how much time was available to complete the task or the degree of scaffolding provided by the teacher.

There is no pre-determined number of samples required in a portfolio nor are the work samples sequenced in any particular order. These initial work sample portfolios do not constitute a complete set of work samples - they provide evidence of most (but not necessarily all) aspects of the achievement standard.

As the Australian Curriculum in English, Mathematics, Science and History is implemented by schools in 2012, the work sample portfolios will be reviewed and enhanced by drawing on classroom practice and will reflect a more systematic collection of evidence from teaching and learning programs.

THIS PORTFOLIO – YEAR 1 SCIENCE

This portfolio comprises a number of work samples drawn from a range of assessment tasks, namely:

Sample 1  Investigation – Changing materials
Sample 2  Investigation – How foods change once heated
Sample 3  Investigation – Sound travel
Sample 4  Report – Mini-beasts

In this portfolio, the student describes a range of materials and events that typically occur in everyday life, including cooling, heating, stretching, bending and tapping of materials (WS1, WS2, WS3). The student describes a living thing and the different habitats in which it can be found (WS4). The student conducts simple investigations of everyday phenomena and demonstrates an ability to make predictions (WS1, WS3), and follow teacher instructions to record and sort observations (WS1, WS2, WS3). The student shares observations with others through text and drawing (WS1, WS2, WS3, WS4), and explains texts to the teacher (WS1).

The following aspect of the achievement standard is not evident in this portfolio:

- They describe changes to things in their local environment and suggest how science helps people care for environments.
Work sample 1: Investigation – Changing materials

Relevant parts of the achievement standard

By the end of Year 1, students describe objects and events that they encounter in their everyday lives, and the effects of interacting with materials and objects. They identify a range of habitats. They describe changes to things in their local environment and suggest how science helps people care for environments.

Students make predictions, and investigate everyday phenomena. They follow instructions to record and sort their observations and share their observations with others.

Summary of task

The class had been working on a unit on everyday materials and the ways in which they can be changed. Students developed vocabulary to describe these actions, such as bending, stretching and twisting.

Students were given a number of hands on activities to explore how everyday materials can be changed. They were asked to investigate the extent to which materials are able to be bent or stretched and the effect of heating and cooling on materials. In undertaking their experiments, students were required to:

• make predictions
• make observations
• make a record of the results of the investigation
• compare predictions and results
• apply the results of the investigation to other familiar objects.

The teacher annotated the student’s drawings.
Work sample 1: Investigation – Changing materials

Annotations

Makes a prediction based on everyday experience and observations.

Investigates how easily the coat hanger bends.

Follows instructions to record results as an informal measurement on the provided scale.

Applies understanding to other familiar objects.

Describes and shares their results with the class through discussion and drawings.
Work sample 1:
Investigation – Changing materials

Annotations

Makes a prediction based on everyday experience and observations.

Investigates how easily the play dough bends.

Follows instructions to record results as an informal measurement on the provided scale.

Applies understanding to other familiar objects.

Describes and shares their results with the class through discussion and drawings.
Work sample 1: Investigation – Changing materials

Annotations

Makes a prediction based on everyday experiences.

Investigates what happens to the water when placed in the freezer.

Describes what happened to the water and records this on the provided worksheet.

Applies understanding to other familiar objects.

Shares findings with the class through discussion and drawing.

Acknowledgment

ACARA acknowledges the contribution of the trial school teachers and students for providing the tasks and work samples. The annotations are referenced to the Australian Curriculum achievement standards.
Work sample 2: 
Investigation – How foods change once heated

Relevant parts of the achievement standard

By the end of Year 1, students describe objects and events that they encounter in their everyday lives, and the effects of interacting with materials and objects. They identify a range of habitats. They describe changes to things in their local environment and suggest how science helps people care for environments.

Students make predictions, and investigate everyday phenomena. They follow instructions to record and sort their observations and share their observations with others.

Summary of task

Students had discussed their everyday observations of how different foods change with heating. They then, with teacher guidance, heated some foods over a hot plate and made observations using the senses of vision and touch.

Students were asked to record their observations of chocolate before heating and after heating. They then observed the chocolate after it had cooled and judged whether chocolate could ‘change back’ after cooling.
Work sample 2:
Investigation – How foods change once heated

<table>
<thead>
<tr>
<th>Chocolate</th>
<th>Before heating</th>
<th>After Heating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown</td>
<td>No more brown</td>
<td>So is sorry</td>
</tr>
<tr>
<td>Hard</td>
<td>Can we change it back if we cool it? Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**Annotations**

- Observes and records what chocolate looks like and feels like before it is heated.
- Observes what happens to chocolate when heated.
- Observes and records what the chocolate looks like and feels like after it has been heated.
- Records whether the chocolate changes back to its original state when cooled.
- Shares observations through text.
Work sample 3: Investigation – Sound travel

Relevant parts of the achievement standard

By the end of Year 1, students describe objects and events that they encounter in their everyday lives, and the effects of interacting with materials and objects. They identify a range of habitats. They describe changes to things in their local environment and suggest how science helps people care for environments.

Students make predictions, and investigate everyday phenomena. They follow instructions to record and sort their observations and share their observations with others.

Summary of task

Students had discussed their everyday observations of sound, and explored the ways in which sound could be sensed: by listening, feeling vibrations and sometimes, seeing vibrations.

Students were asked to make a prediction about which surface in the room would best transfer sound. They tested this by tapping on the surface with a finger nail and seeing how loud it sounded. They tested different surfaces in the room to see if their prediction was correct and then reflected on their findings.
Work sample 3: Investigation – Sound travel

Sound Travel

I predict that tapping will sound loudest when the vibrations travel through wall.

As you test different surfaces in the room, write each surface in the correct column of the table below:

<table>
<thead>
<tr>
<th></th>
<th>Loud</th>
<th>Medium</th>
<th>Soft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fridge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire extinguisher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What did you find out?

I thought the wall was the loudest but it was the softest.

If you wanted to keep a room quiet, what would be the best material to put on the floor? Carpet.

Annotations

Predicts based on everyday experiences.

Investigates the transfer of sound through different surfaces, making informal measurements.

Sorts and records findings in the table provided.

Records and shares observations using text and drawing.

Makes a prediction based on findings.

Acknowledgment

ACARA acknowledges the contribution of the Education and Training Directorate, ACT for providing the tasks and work samples. The annotations are referenced to the Australian Curriculum achievement standards.
Work sample 4: Report – Mini-beasts

Relevant parts of the achievement standard

By the end of Year 1, students describe objects and events that they encounter in their everyday lives, and the effects of interacting with materials and objects. They identify a range of habitats. They describe changes to things in their local environment and suggest how science helps people care for environments.

Students make predictions, and investigate everyday phenomena. They follow instructions to record and sort their observations and share their observations with others.

Summary of task

Students were asked to explain how the needs of living things are met, what would happen if the needs of living things were not met and to draw labelled diagrams of the chosen mini-beast and its habitat.

They were asked to explain why mini-beasts live in a range of habitats. The teacher annotated their answers.
Annotations

Identifies lady beetle behaviours.

Identifies that lady beetles live in a range of habitats.

Predicts how the lady beetle would respond to its needs not being met.

Shares observations through text and drawing.

Identifies that the habitats mini-beasts live in are places where their needs are met.

Acknowledgment

ACARA acknowledges the contribution of the Catholic Education Office, Archdiocese of Canberra and Goulburn for providing the tasks and work samples. The annotations are referenced to the Australian Curriculum achievement standards.