

# Science F-2

## End-of-band review

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## End-of-band review

*This is done with the teacher. The teacher reads all the words. The child looks, says, points, sorts, does and shows work. The child does not need to read. There is no time limit on any part of this review.*

*This review is run once, at the end of Level 2. It is made for two sittings of about 15 minutes each. Sitting 1 is Part 1, the portfolio review. Sitting 2 is Part 2, the short practical task.*

*A mark is a record that evidence was seen. There are no part-marks and no half-marks. This review is not a VCAA instrument, and it is not used to rank students.*

This review covers all 20 content descriptions of the Foundation to Level 2 band: VC2S2H01, VC2S2H02, VC2S2U01 to VC2S2U12, and VC2S2I01 to VC2S2I06. All 20 are reachable through the portfolio in Part 1. The practical task in Part 2 is the only place they are assessed together. Every content description is also covered by its topic check, so no content description is assessed only in this review.

**Total: 20 marks.** Part 1, portfolio review: 11 marks, one per strand. Part 2, short practical task: 9 marks.

### Part 1 — Portfolio review (11 marks)

*Sitting 1, about 15 minutes. One teacher with one child.*

The **portfolio** is the child's own folder of work from across the band. It holds things like the Moon diary, a sorting record, a labelled feature drawing, a recorded investigation and a data table.

The teacher and the child look through the portfolio together. The teacher reads each row of the checklist out loud. The child picks a piece to show, points to what matters and says what the piece shows. The teacher writes the mark, 0 or 1, in the last column.

Give **1 mark** for a strand when the portfolio holds at least one piece of work that shows what the strand's row in the checklist asks for. Give **0 marks** when it does not. There are no half-marks. The eleven rows let the teacher see at a glance which strand has thin evidence.

#### Strand checklist

| # | Strand                            | Code                               | What the work must show                                                                                                                          | Look for                                                                                                | Mark                     |
|---|-----------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------|
| 1 | Nature and development of science | VC2S2H01                           | The child makes and compares observations about their world.                                                                                     | An observation record or drawing from 1A, e.g. a compare of two people's observations of the same thing | <input type="checkbox"/> |
| 2 | Use and influence of science      | VC2S2H02                           | The child tells about times in daily life when they ask questions about things in nature, and uses a pattern they observed to make a prediction. | A record from 1B of a question and a prediction from a pattern, e.g. from the weather                   | <input type="checkbox"/> |
| 3 | Biological sciences               | VC2S2U01,<br>VC2S2U02,<br>VC2S2U03 | VC2S2U01 and VC2S2U02: the child sorts plants                                                                                                    | A sorting record with the rule said each time (2A);                                                     | <input type="checkbox"/> |

| # | Strand                   | Code                         | What the work must show                                                                                                                                                                                                                                                                                                                                                               | Look for                                                                                                                                                                                               | Mark                     |
|---|--------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
|   |                          |                              | and animals by the features they can see, and says how living things get what they need where they live. —<br>VC2S2U03: the child says how the outside features of plants and animals help them stay alive.                                                                                                                                                                           | a labelled feature drawing (2C); a match of a living thing to a place that meets its needs (2B)                                                                                                        |                          |
| 4 | Chemical sciences        | VC2S2U04, VC2S2U05, VC2S2U06 | VC2S2U04: the child says what materials objects are made of, and what those materials are like. —<br>VC2S2U05: the child gives examples of objects and of mixtures made from more than one material, and says how a mixture acts differently from the materials in it. —<br>VC2S2U06: the child names ways to change a material so its shape changes but the material stays the same. | A materials sort by an observed property (3A); a record of an object or mixture made from more than one material (3B); a record of bending, twisting, stretching, crushing, squashing or breaking (3C) | <input type="checkbox"/> |
| 5 | Earth and space sciences | VC2S2U07, VC2S2U08, VC2S2U09 | VC2S2U07: the child names daily and seasonal changes and says how they affect everyday life. —<br>VC2S2U08: the child names objects in the sky and says patterns they have seen there.                                                                                                                                                                                                | A weather record over time (4A); the Moon diary (4B); a reduce, re-use, recycle sort with a reason (4C)                                                                                                | <input type="checkbox"/> |

| # | Strand                     | Code                         | What the work must show                                                                                                                                                                                                                                                                                        | Look for                                                                                                                                                     | Mark                     |
|---|----------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
|   |                            |                              | — VC2S2U09: the child suggests ways to reduce, re-use and recycle common materials, and says why these actions matter.                                                                                                                                                                                         |                                                                                                                                                              |                          |
| 6 | Physical sciences          | VC2S2U10, VC2S2U11, VC2S2U12 | VC2S2U10: the child says what things change how an object moves. — VC2S2U11: the child says and predicts how pushes and pulls of different strength and direction change movement and shape. — VC2S2U12: the child says how sound affects objects, and shows how to make sounds of different pitch and volume. | A slope-and-roll record (5A); a push or pull arrow drawing showing strength and direction (5B); a record of making sounds of different pitch and volume (5C) | <input type="checkbox"/> |
| 7 | Questioning and predicting | VC2S2I01                     | The child asks questions about patterns they have observed, and makes predictions about things and events they know.                                                                                                                                                                                           | A recorded investigation with the child's own question and prediction (6A)                                                                                   | <input type="checkbox"/> |
| 8 | Planning and conducting    | VC2S2I02, VC2S2I03           | The child suggests steps for an investigation, follows them safely, and makes and records observations, including measuring with informal units.                                                                                                                                                               | Steps in order and safe working (6B); a measure record using blocks, handspans, pencil lengths or string (6C)                                                | <input type="checkbox"/> |
| 9 | Processing,                | VC2S2I04                     | The child uses a                                                                                                                                                                                                                                                                                               | A filled-in data                                                                                                                                             | <input type="checkbox"/> |

| #  | Strand                  | Code     | What the work must show                                                                                                                     | Look for                                                                                                                        | Mark                     |
|----|-------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------|
|    | modelling and analysing |          | table that is given for sorting and ordering data, and shows simple patterns in it.                                                         | table (7A), e.g. Moon diary images ordered into the cycle                                                                       |                          |
| 10 | Evaluating              | VC2S2I05 | With the teacher's help, the child compares what they observed and predicted with what others found, and says new questions to investigate. | A record of comparing a prediction with what happened, and of comparing with a partner's observation; any further question (7B) | <input type="checkbox"/> |
| 11 | Communicating           | VC2S2I06 | The child shares observations, findings and ideas using everyday words and some science words.                                              | A spoken finding written down by the teacher; a drawing, model or craft with words from the word list (7C)                      | <input type="checkbox"/> |

**A 0 is not a fail.** When a strand has no piece, give 0 and note that the strand's evidence is thin. The strand's content description is still evidenced by its topic check. Do not force a piece at the review.

**Part 1 total: 11 marks.**

## Part 2 — Short practical task: ramp and rollers (9 marks)

*Sitting 2, about 15 minutes. One teacher with two children working as partners. Both children do the task, and each is marked on their own.*

This task touches one knowledge strand and the full inquiry sequence. It is the shape of Topic 6 and Topic 7 put together.

- Knowledge strand: Physical sciences, VC2S2U10 — how an object moves depends on things like its size, shape and material.
- Inquiry sequence: VC2S2I01 predict (1 mark); VC2S2I02 follow steps safely (2 marks); VC2S2I03 observe and record with an informal measure (2 marks); VC2S2I04 sort into a provided table (2 marks); VC2S2I05 compare with a partner (1 mark); VC2S2I06 say what was found (1 mark).

### Equipment, for each pair

- a board for the ramp, and one book or block to lift one end
- three objects that differ in size, shape and material: a tennis ball (big, round), a table tennis ball (small, round) and a wooden block (not round)
- blocks that are all the same size, to measure with
- two sets of three cards, one set for each child, each card showing one object
- a strip of paper or tape for the line
- one copy of the provided table below for each child

### Set-up, before the sitting

- Lift one end of the board on the book. The ramp stays the same for every roll and for both children.

- Mark the start spot at the top of the ramp. Every roll starts from the same spot.
- Put the line on the floor past the bottom of the ramp. Test all three objects first. Put the line where some objects roll past it and some do not. Move the line if you need to.

### **Safety — read aloud before you start**

- We roll on the floor, away from people.
- We do not throw. We walk to pick up our object.
- Nothing goes in our mouth. We never taste materials.
- If your object rolls under furniture, tell the teacher. Do not climb to get it.

### **Steps — the teacher reads one step at a time, the child does**

1. Look at the three objects. Say one thing that is different about them: the size, the shape or the material.
2. Say which object you think will roll the furthest. Say this before you roll. The teacher writes your prediction down. A child may also say why. That is good to hear, but the mark is for the prediction.
3. Put the first object on the start spot at the top of the ramp. Let it go. Do not push it.
4. Put the blocks end to end from the bottom of the ramp to your object. Use the same blocks every time. No gaps.
5. Count the blocks. Say the number. The teacher writes it down.
6. Do steps 3 to 5 again for the other two objects.
7. Sort your three cards into the provided table below. Put each card where it matches what happened.
8. Put your three cards in a line: the shortest roll first, the longest roll last.
9. Look at your partner's table. Say one thing that is the same, or one thing that is different.
10. Say what you found. Use at least one word from the word list, like size, shape or material.

### **The provided table**

| Object            | Rolled past the line | Did not roll past the line |
|-------------------|----------------------|----------------------------|
| Tennis ball       |                      |                            |
| Table tennis ball |                      |                            |
| Wooden block      |                      |                            |

The child puts each object card in one place in the table. A **column** is a place in a table that goes up and down. This table has two columns: rolled past the line, and did not roll past the line.

### **Teacher record sheet**

Prediction (the teacher writes the child's words):

| Object            | Blocks it rolled |
|-------------------|------------------|
| Tennis ball       |                  |
| Table tennis ball |                  |
| Wooden block      |                  |

### **Comparing with your partner — read aloud**

If your result and your partner's result are different, that is interesting. You both observed carefully. Nobody made a mistake. A different result is the next question.

### **Mark sheet**

| Item             | Strand (code)                            | What to look for                                                       | Mark |
|------------------|------------------------------------------|------------------------------------------------------------------------|------|
| P1 Predict       | Questioning and predicting<br>(VC2S2I01) | The child says which object will roll the furthest, before any roll.   | 1    |
| P2a Follow steps | Planning and conducting<br>(VC2S2I02)    | The child follows steps 3 to 6 in the order read, with no step missed. | 1    |

| Item                    | Strand (code)                                  | What to look for                                                                                                    | Mark |
|-------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------|
| P2b Work safely         | Planning and conducting (VC2S2I02)             | The child follows the safety notes: rolls away from people, does not throw, nothing in the mouth.                   | 1    |
| P3a Observe and record  | Planning and conducting (VC2S2I03)             | The child says a block count for each object. The teacher writes it down.                                           | 1    |
| P3b Informal measure    | Planning and conducting (VC2S2I03)             | The measure uses the same blocks, end to end, with no gaps, every time.                                             | 1    |
| P4a Sort into the table | Processing, modelling and analysing (VC2S2I04) | Each card goes in the column that matches the child's own result.                                                   | 1    |
| P4b Order               | Processing, modelling and analysing (VC2S2I04) | The three cards go in a line from the shortest roll to the longest roll.                                            | 1    |
| P5 Compare              | Evaluating (VC2S2I05)                          | The child says one thing that is the same, or one thing that is different, between their table and their partner's. | 1    |
| P6 Say what was found   | Communicating (VC2S2I06)                       | The child says what they found, using at least one word from the word list.                                         | 1    |

**Part 2 total: 9 marks.**

The knowledge strand Physical sciences (VC2S2U10) is in the task: the three objects differ in size, shape and material, and the prediction and the finding are about how those features change the roll. The nine marks are for the inquiry sequence. VC2S2U10 is also evidenced by the Topic 5 check and in the portfolio.

**Review total**

| Part                                           | Marks     |
|------------------------------------------------|-----------|
| Part 1 — Portfolio review, one mark per strand | 11        |
| Part 2 — Short practical task                  | 9         |
| <b>Total</b>                                   | <b>20</b> |

## Solutions — End-of-band review

*End-of-band review · run once, at the end of Level 2 · 20 marks · Part 1: portfolio review, 11 marks, one per strand · Part 2: short practical task, 9 marks. Teacher-administered and read aloud. Untimed. Two sittings of about 15 minutes each. This review is not a VCAA instrument and is not used to rank students.*

The review covers all 20 content descriptions of the Foundation to Level 2 band. All 20 are reachable through the portfolio in Part 1; the practical task in Part 2 is the only place they are assessed together. Every content description is also covered by its topic check — none is assessed only here.

### Part 1 — Portfolio review (11 marks, one per strand)

Give **1 mark** for a strand when the portfolio holds at least one piece of work that shows what the strand's row in the review asks for. Give **0** when it does not — a 0 is not a fail; it says the strand's evidence is thin, and the strand's content description is still evidenced by its topic check. Do not force a piece at the review. For every row, the probe is the same: when the child shows a piece, ask them to say what it shows — *What does this piece show?* — and check what they say against what the row asks for.

#### Strand 1 — Nature and development of science · VC2S2H01 · 1 mark

- **Accept:** an observation record or drawing from Topic 1A — for example, a compare of two people's observations of the same thing.
- **Evidences:** VC2S2H01 (the child makes and compares observations about their world).

#### Strand 2 — Use and influence of science · VC2S2H02 · 1 mark

- **Accept:** a record from Topic 1B of a question and a prediction from a pattern — for example, from the weather.
- **Evidences:** VC2S2H02 (the child tells about times in daily life when they ask questions about things in nature, and uses a pattern they observed to make a prediction).

#### Strand 3 — Biological sciences · VC2S2U01, VC2S2U02, VC2S2U03 · 1 mark

- **Accept:** a sorting record with the rule said each time (Topic 2A); or a labelled feature drawing (Topic 2C); or a match of a living thing to a place that meets its needs (Topic 2B). One piece is enough for the strand.
- **Evidences:** VC2S2U01 and VC2S2U02 (the child sorts plants and animals by the features they can see, and says how living things get what they need where they live) · VC2S2U03 (the child says how the outside features of plants and animals help them stay alive).

#### Strand 4 — Chemical sciences · VC2S2U04, VC2S2U05, VC2S2U06 · 1 mark

- **Accept:** a materials sort by an observed property (Topic 3A); or a record of an object or mixture made from more than one material (Topic 3B); or a record of bending, twisting, stretching, crushing, squashing or breaking (Topic 3C).
- **Evidences:** VC2S2U04 (the child says what materials objects are made of, and what those materials are like) · VC2S2U05 (the child gives examples of objects and of mixtures made from more than one material, and says how a mixture acts differently from the materials in it) · VC2S2U06 (the child names ways to change a material so its shape changes but the material stays the same).

#### Strand 5 — Earth and space sciences · VC2S2U07, VC2S2U08, VC2S2U09 · 1 mark

- **Accept:** a weather record over time (Topic 4A); or the class Moon diary (Topic 4B); or a reduce, re-use, recycle sort with a reason (Topic 4C).
- **Evidences:** VC2S2U07 (the child names daily and seasonal changes and says how they affect everyday life) · VC2S2U08 (the child names objects in the sky and says patterns they have seen there) · VC2S2U09 (the child suggests ways to reduce, re-use and recycle common materials, and says why these actions matter).

**Strand 6 — Physical sciences** · VC2S2U10, VC2S2U11, VC2S2U12 · 1 mark

- **Accept:** a slope-and-roll record (Topic 5A); or a push or pull arrow drawing showing strength and direction (Topic 5B); or a record of making sounds of different pitch and volume (Topic 5C).
- **Evidences:** VC2S2U10 (the child says what things change how an object moves) · VC2S2U11 (the child says and predicts how pushes and pulls of different strength and direction change movement and shape) · VC2S2U12 (the child says how sound affects objects, and shows how to make sounds of different pitch and volume).

**Strand 7 — Questioning and predicting** · VC2S2I01 · 1 mark

- **Accept:** a recorded investigation with the child's own question and prediction (Topic 6A).
- **Evidences:** VC2S2I01 (the child asks questions about patterns they have observed, and makes predictions about things and events they know).

**Strand 8 — Planning and conducting** · VC2S2I02, VC2S2I03 · 1 mark

- **Accept:** steps in order and safe working (Topic 6B); or a measurement record using blocks, handspans, pencil lengths or string (Topic 6C).
- **Evidences:** VC2S2I02 and VC2S2I03 (the child suggests steps for an investigation, follows them safely, and makes and records observations, including measuring with informal units).

**Strand 9 — Processing, modelling and analysing** · VC2S2I04 · 1 mark

- **Accept:** a filled-in data table (Topic 7A) — for example, Moon diary images ordered into the cycle.
- **Evidences:** VC2S2I04 (the child uses a table that is given for sorting and ordering data, and shows simple patterns in it).

**Strand 10 — Evaluating** · VC2S2I05 · 1 mark

- **Accept:** a record of comparing a prediction with what happened, and of comparing with a partner's observation; any further question (Topic 7B).
- **Evidences:** VC2S2I05 (with the teacher's help, the child compares what they observed and predicted with what others found, and says new questions to investigate).

**Strand 11 — Communicating** · VC2S2I06 · 1 mark

- **Accept:** a spoken finding written down by the teacher; or a drawing, model or craft with words from the word list (Topic 7C).
- **Evidences:** VC2S2I06 (the child shares observations, findings and ideas using everyday words and some science words).

**Part 2 — Short practical task: ramp and rollers (9 marks)**

*One teacher with two children working as partners. Both children do the task, and each is marked on their own. The knowledge strand Physical sciences (VC2S2U10 — how an object moves depends on things like its size, shape and material) is in the task: the three objects differ in size, shape and material. The nine marks are for the inquiry sequence. VC2S2U10 is also evidenced by the Topic 5 check and in the portfolio.*

**P1 — predict** · VC2S2I01 · 1 mark

- **Accept:** the child says which of the three objects — the tennis ball, the table tennis ball, the wooden block — will roll the furthest, **before any roll**. Any of the three is a good prediction. Write it down. A child may also say why; that is good to hear, but the mark is for the prediction.

- **Evidences:** VC2S2I01 (the child makes a prediction about a thing and an event they know).
- **If not given, ask:** *Say it before you roll — which one will go furthest?*

**P2a — follow steps** · VC2S2I02 · 1 mark

- **Accept:** the child follows steps 3 to 6 in the order read — place the object at the start spot and let it go (no push) · measure with the blocks end to end · count the blocks and say the number · repeat for the other two objects — with no step missed.
- **Evidences:** VC2S2I02 (the child follows the steps of an investigation; here, the steps are provided and followed).
- **If the child stops or skips, ask:** *What do we do next?*

**P2b — work safely** · VC2S2I02 · 1 mark

- **Accept:** the child follows the safety notes — rolls away from people, does not throw, walks to pick up the object, nothing goes in the mouth. A single reminder does not lose the mark. Give 0 only if the child keeps throwing or mouths the objects.
- **Evidences:** VC2S2I02 (the child follows the safe steps).
- **Probe:** safety is watched, not asked. Remind once if needed: *We walk. We do not throw.*

**P3a — observe and record** · VC2S2I03 · 1 mark

- **Accept:** the child says a block count for **each** of the three objects. Write each count down.
- **Evidences:** VC2S2I03 (the child makes and records an observation, and measures with informal units).
- **If right but unclear, ask:** *How many blocks? Count them again with me.*

**P3b — informal measure with a uniform unit** · VC2S2I03 · 1 mark

- **Accept:** the measure uses the **same blocks, end to end, with no gaps**, every time — the same unit all the way, the rule taught in Topic 6C.
- **Evidences:** VC2S2I03 (the child measures with informal units).
- **If right but unclear, ask:** *Are the blocks end to end? Are they all the same?*

**P4a — sort into the provided table** · VC2S2I04 · 1 mark

- **Accept:** each of the child's three object cards goes in the column that matches the **child's own result** — rolled past the line, or did not roll past the line. Mark against the child's own recorded counts, not against what you expected.
- **Evidences:** VC2S2I04 (the child sorts data into the table that is given).
- **If right but unclear, ask:** *Did the tennis ball go past the line? Where does that card go?*

**P4b — order the cards** · VC2S2I04 · 1 mark

- **Accept:** the three cards in a line from the **shortest roll to the longest roll**, matching the child's own block counts.
- **Evidences:** VC2S2I04 (the child puts the data in order and shows a simple pattern in it).
- **If right but unclear, ask:** *Which one rolled the least? Put that one first.*

**P5 — compare with the partner** · VC2S2I05 · 1 mark

- **Accept:** the child says one true thing that is the same, or one true thing that is different, between their table and their partner's. If the results differ, that is **interesting, not a mistake** — both children observed carefully, and a different result is the next question. Do not rub either table out.
- **Evidences:** VC2S2I05 (the child compares their own result with their partner's).
- **If right but unclear, ask:** *Look at your partner's table. What is the same? What is different?*

**P6 — say what was found** · VC2S2I06 · 1 mark

- **Accept:** the child says what they found, using **at least one word from the word list** in a way that fits — for example *size, shape* or *material*, like *The tennis ball rolled furthest. It is the biggest.* Write down the words used.
- **Evidences:** VC2S2I06 (the child says what they found, using everyday words and a science word).
- **If no list word comes, ask once:** *Can you use one of these words?* and show the word cards.

**Review total**

| Part                                           | Marks     |
|------------------------------------------------|-----------|
| Part 1 — portfolio review, one mark per strand | 11        |
| Part 2 — short practical task                  | 9         |
| <b>Total</b>                                   | <b>20</b> |

Together with the seven topic checks (80 marks), the full assessment for the band is **100 marks**.