In the Australian Curriculum, literacy is one of the general capabilities embedded across all learning areas.

Students become literate as they develop the knowledge and skills they need to access, understand, analyse and evaluate information, make meaning, express thoughts and emotions, present ideas and opinions, interact with others and participate in activities at school and in their lives beyond school.

"Literacy involves students in listening to, reading, viewing, speaking, writing and creating oral, print, visual and digital texts, and using and modifying language for different purposes in a range of contexts."¹

**Assessment technique**

Short response

**Targeted indicators**

*Viewing and Reading*

**VR 8 ii**

View and read written, visual and multimodal learning area texts that:

- include original sources
- are hybrids of different types of text
- **identify complex relationships and ideas**

**VR 8 iii**

Use text-processing strategies when viewing and reading including:

- **drawing conclusions**
- forming hypotheses

http://www.australiancurriculum.edu.au/GeneralCapabilities/Literacy/Introduction/Introduction
Context
This short response provides opportunity to monitor each student’s ability to use text-processing strategies to draw conclusions about a scientific rule when viewing a video and an interactive object to demonstrate the identified literacy indicators.

This assessment could be linked to Australian Curriculum content:

*Science Understanding — Physical sciences*
Energy appears in different forms including movement (kinetic energy), heat and potential energy, and causes change within systems (ACSSU155)

*Science Inquiry Skills — Communicating*
Communicate ideas, findings and solutions to problems using scientific language and representations using digital technologies as appropriate (ACISIS148).

Teacher information
This assessment is an example of one way that teachers may gather evidence of a student’s ability to demonstrate highlighted sections of the targeted indicators.

This assessment may be differentiated by:
- having further discussion to allow some students to clarify and question
- using print, online, written, visual or multimodal texts
- providing extra time for some students who are reluctant readers/viewers and need adjusted time.

Implementation

*Modelling*
The teacher leads a discussion about the information students have drawn from each text to confirm understanding before asking students to apply Ohm’s law.

*Gathering evidence*
The students:
- view a YouTube video clip about Ohm’s law: www.youtube.com/watch?v=Qn1dQ0vf4N4
- interact with the interactive object about Ohm’s law: www.flashscience.com/electricity/ohms_law.htm
- complete *Analysing Ohm’s law* (provided) to answer questions about Ohm’s law by identifying and drawing conclusions about the complex relationship between voltage, current and resistance
- compare the information gained from each text
- draw conclusions about which text provided them with the best understanding of Ohm’s law and justify their decision.

Evidence of student achievement of each indicator can be recorded in a *Class monitoring record* (provided). Teachers analyse the evidence to inform decisions about ongoing literacy teaching and learning (*Appendix: Example student response* may be helpful).
Analysing Ohm’s law

How do these explanations support your understanding of Ohm’s law? Write an answer to each question using the information given in the video or the interactive object.

<table>
<thead>
<tr>
<th>Question</th>
<th>Video</th>
<th>Interactive object</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the three variable factors in Ohm's law?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How do you calculate current flow if you know the voltage and the resistance in a circuit?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is the relationship between current flow and resistance?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I best understood Ohm's law from:

Class monitoring record

<table>
<thead>
<tr>
<th>Indicators</th>
</tr>
</thead>
</table>
| **Teacher:** VR 8 ii
View and read written, visual and **multimodal** learning area texts that:
- include original sources
- are hybrids of different types of text
- identify complex relationships and ideas |
| **VR 8 iii**
Use text-processing strategies when viewing and reading including:
- drawing conclusions
- forming hypotheses |
| **Class:** |
| **Term:** |
| Student 1 |
| Student 2 |
| Student 3 |
| Student 4 |
| Student 5 |
| Student 6 |
| Student 7 |
| Student 8 |
## Appendix: Example student response

How do these explanations support your understanding of Ohm’s law? Write an answer to each question using the information given in the video or the interactive object.

<table>
<thead>
<tr>
<th>Question</th>
<th>Video</th>
<th>Interactive object</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the three variable factors in Ohm’s law?</td>
<td>Voltage, resistance and current flow</td>
<td>V, A, Ω</td>
</tr>
<tr>
<td>How do you calculate current flow if you know the voltage and the resistance in a circuit?</td>
<td>You divide voltage by resistance. You can remember this by using the triangle diagram.</td>
<td>This doesn’t give an equation, but I can see the current flow in the brown box.</td>
</tr>
<tr>
<td>What is the relationship between current flow and resistance?</td>
<td>Resistance reduces the potential for current flow.</td>
<td>When I increase the resistance (Ω) the current flow (A) reduces.</td>
</tr>
</tbody>
</table>

I best understood Ohm’s law from: the interactive object.

I had a good idea of what the video was telling me, but I needed to see it happening before I understood it properly. I still need the video to know what the equations are, but playing with the interactive object allowed me to predict the answers to the equations.