# Resource in focus – Computing Technology Stage 5

## Learning intentions and success criteria

This resource showcases an excerpt from the sample program of learning, [Computing Technology Stage 5 (Year 9) – Building mechatronic and automated systems](https://education.nsw.gov.au/teaching-and-learning/curriculum/tas/planning-programming-and-assessing-tas-7-10/computing-technology-7-10). Sample units are optional resources that present ‘one way’ of designing teaching and learning experiences. They can be adopted and adapted for your school context.

The example below demonstrates **one way** that learning intentions and success criteria may be adapted. It focuses on the first lesson in Week 8, of a 20-week unit.

**Note**: possible adaptations are represented in **bold red.**

### Syllabus outcomes and content

Start with the syllabus. Learning intentions and success criteria should be aligned to the relevant syllabus outcomes and content. The outcomes and content points below align with learning in Week 8 of the sample program of learning.

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| --- | --- |
| Focus area and outcomes | Content points |
| **Software development: Building mechatronic and automated systems**  **CT5-DPM-01** applies iterative processes to define problems and plan, design, develop and evaluate computing solutions  **CT5-COL-01** manages, documents and explains individual and collaborative work practices  **CT5-EVL-01** understands how innovation, enterprise and automation have inspired the evolution of computing technology | * describe how mechatronic and automated systems have evolved in response to people's needs and opportunities * explore design principles and issues relevant to mechatronic and automated systems |

### Example from resource

The example below is from Lesson 1, Week 8 from the [Computing Technology Stage 5 (Year 9) – Building mechatronic and automated systems](https://education.nsw.gov.au/teaching-and-learning/curriculum/tas/planning-programming-and-assessing-tas-7-10/computing-technology-7-10) sample program of learning. The suggested learning intention and success criteria are for one lesson.

|  |  |
| --- | --- |
| Learning intention | Success criteria |
| Investigate how mechatronic and automated systems have evolved in response to people’s needs. | I can describe how design principles and issues affect the evolution of mechatronic and automated systems. |

### Adopt and adapt example 1

This example presents **one way** that a suggested learning intention and success criteria from a sample program of learning may be adapted. In the table below, the learning intention and success criteria have been unpacked through a case study of walking and mobility aids.

Using the success criteria to explicitly identify the processes and products required to achieve the learning intention can support students to understand what they are learning and why it is important.

**Note:** this example will show how a suggested learning intention and success criteria from a sample program of learning can be adapted for an individual lesson. It is essential teachers consider the context and individual needs of their class when adapting suggested learning intentions and success criteria. This can be guided by both formative and summative assessment data.

|  |  |
| --- | --- |
| Learning intention(s) | Success criteria |
| Investigate how mechatronic and automated systems have evolved in response to people’s needs. | * **I can identify a need for mechatronics and automation in mobility assistance, for example walking frames, ‘smart walkers’ and exoskeletons** * **I can identify systems that support people’s needs in aged care** * **I can describe how these systems have evolved** * **I can explain why these systems have evolved** |
| **Explore design principles and issues relevant to mechatronic and automated systems.** | * **I can define design principles that may influence the development of mechatronic and automated systems that support mobility assistance** * **I can describe how design principles impact the development of mechatronic and automated systems that support mobility assistance** |

### Adopt and adapt example 2

This example presents **one way** that a suggested learning intention and success criteria from a sample program of learning may be adapted. In the table below, the learning intention and success criteria have been unpacked through a case study of warehousing operations.

Using the success criteria to explicitly identify the processes and products required to achieve the learning intention can support students to understand what they are learning and why it is important.

**Note:** this example will show how a suggested learning intention and success criteria from a sample program of learning can be adapted for an individual lesson. It is essential teachers consider the context and individual needs of their class when adapting suggested learning intentions and success criteria. This can be guided by both formative and summative assessment data.

|  |  |
| --- | --- |
| Learning intention(s) | Success criteria |
| Investigate how mechatronic and automated systems have evolved in response to people’s needs. | * **I can identify a need for mechatronics and automation in warehousing, for example the need to reduce manual handling via hand pallets, exoskeletons and automated robotic systems** * **I can identify systems that support people’s needs in warehousing operations** * **I can describe how these systems have evolved** * **I can describe why these systems have evolved** |
| **Explore design principles and issues relevant to mechatronic and automated systems.** | * **I can identify design principles that may influence the development of mechatronic and automated systems that support warehousing operations** * **I can describe how design principles impact the development of mechatronic and automated systems that support warehousing operations** |

## References

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