

# Year 7 Ways of Doing- Computing

## Creative

## Computational

## Technical

Exceeding

- Students present their work in creative ways demonstrating a high degree of originality
- Students clearly demonstrate evidence of planning in their work, resulting in excellent programs and creative digital artefacts
- Students produce work, which is innovative and selects the most appropriate tool to present
- Students combine the use of hardware and software using CAD/CAM, which results in a professional looking product
- Students are able to create projects, which are used across multiple platforms and devices

- Students are able to independently debug simple programs in Python
- Students are able to expand on the functionality of their programs without support
- Students routinely break problems down independently and methodically
- Students demonstrate a secure understanding of binary data and the importance of it in computer systems
- Students understand the use of data storage in programming
- Students independently investigate programming procedures to control physical output
- Students are able to write boolean logic statements and draw their own boolean logic diagrams to represent circuits

- Students are able to create suitable folder structures using cloud storage
- Students are able to appropriately name files without being reminded by their teacher
- Students are fully aware of the risks of online communication methods and know to tell an appropriate adult if they are at risk
- Students know how to, and advise others on, how to protect their online identity
- Students are able to recognise inappropriate content on the internet and how to report it
- Students are able to collect data, and understand how to interpret results to draw informed conclusions

Expected

- Students present their work in creative ways with originality
- Students often demonstrate evidence of planning in their work, resulting in excellent programs and creative digital artefacts
- Students often produce work which is innovative and can select appropriate tools, sometimes with teacher guidance
- Students are able to recognise a variety of CAD/CAM methods and can utilise them in projects
- Students are able to create projects, which can be used across multiple devices

- Students can demonstrate some debugging methods but may require peer/teacher support
- Students are able to expand on the functionality of their programs with prompts
- Students usually break problems down into smaller problems
- Students understand how to manipulate binary data
- Students understand the use of data storage in programming
- With teacher guidance, students are able to investigate programming procedures to control physical output
- Students are able to write boolean logic statements and draw boolean logic diagrams to represent circuits with teacher guidance

- Students are able to create suitable folder structures using cloud storage
- Students are able to appropriately name files with guidance
- Students are mostly aware of the risks of online communication methods and know to tell an appropriate adult if they are at risk
- Students know how to protect their online identity
- Students are able to recognise inappropriate content
- Students are able to collect data, and understand how to interpret results to draw conclusions

Developing

- Students mostly present their work in creative ways
- Students plan their work but it is sometimes lacking detail
- Students often produce work which is innovative and can select appropriate tools, sometimes with teacher guidance
- Students recognise some benefits of CAD/CAM
- Students are able to create projects, which can be used across multiple devices

- Students can demonstrate some debugging methods but require peer/teacher support
- Students are able to expand on the functionality of their programs with guidance
- Students usually break problems down into smaller problems
- Students understand how to manipulate binary data
- Students understand the use of data storage in programming
- With teacher guidance, students are able to investigate programming procedures to control physical output
- Students understand the boolean values AND, OR and NOT

- Students create folder structures but do not always use them correctly
- Students often name files correctly with guidance
- Students are mostly aware of the risks of online communication methods and know to tell an appropriate adult if they are at risk
- Students know some ways to protect their online identity
- Students are able to recognise inappropriate content
- Students are able to collect data and present it in different ways

Supported

- Students mostly present their work in creative ways but require teacher support to achieve this
- Students plan their work but it is often lacking detail
- Students often produce work with different tools prescribed by the teacher
- Students identify uses of CAD/CAM
- Students are able to create projects which can be used on one platform

- Students require regular support to write and test simple programs
- Students are able to expand on the functionality of their programs, but with regular support from peers and teachers
- Students struggle to break problems down into smaller problems
- Students understand how to convert binary data into integers
- Students understand the use of data storage in programming
- With teacher guidance, students are able to investigate programming procedures to control physical output
- Students can write simple AND, OR, NOT statements with support

- Students require teacher support to create and use folder structures correctly
- Students lack organisation and do not name files appropriately
- Students are mostly aware of the risks of online communication methods and know to tell an appropriate adult if they are at risk
- Students know some ways to protect their online identity
- Students are able to recognise inappropriate content
- Students are able to collect data and present it in different ways