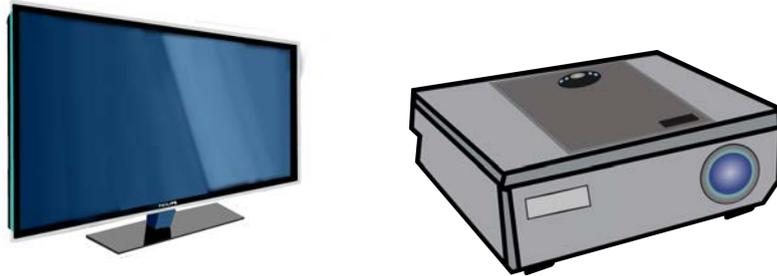




## Deciding Whether to Choose a TV or a Projector for a Classroom

When it is time to add or renew the display technology in a classroom, the first choice is usually between whether to install a TV (sometimes known as a Display) or a Data Projector. This guide provides a list of things to consider and in which ways either a TV or Projector might best meet your needs.



Images: sketchport.com & pixabay.com

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Once you have read this guide you are welcome to contact the Connected Learning Advisory to get more personal assistance. We aim to provide consistent, unbiased advice and are free of charge to all state and state-integrated New Zealand schools and kura. Our advisors can help with all aspects outlined in this guide as well as provide peer review of the decisions you reach before you take your next steps.

For more information visit [www.connectedlearning.org.nz](http://www.connectedlearning.org.nz)  
Check out our resources at [resources.connectedlearning.org.nz](http://resources.connectedlearning.org.nz)  
Call us for personalised service on 0800 700 400  
Make a personal inquiry via our online form at [query.connectedlearning.org.nz](http://query.connectedlearning.org.nz)  
Email [info@connectedlearning.org.nz](mailto:info@connectedlearning.org.nz)

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### Consultation



As with any technology decision, you should also consult with students and teachers and connect with other schools to ascertain their experiences. Specialist audio-visual companies will also be able to give further advice and recommendations. When it comes to the time to install the projector or TV you should ensure the usual classroom teacher has plenty of input so that the image position and size are suitable and the cables are run to a suitable point in the room.

### Professional Learning



Teachers may need some training to help them understand how to use the technology that is implemented so remember to factor-in some Professional Learning time.

### Size and Position



The major factor to consider when choosing a projector or TV is simply the image size. Unless it is very large, small detail on a TV screen is not easy to see from the back of a classroom. Commonly, websites do rely on small details so a TV may not be appropriate. If the main purpose for the TV or projector is for small groups, large images or if the room itself is small then a TV might be more suitable. If the room is large then a projector may be preferable. Or, you could consider purchasing two TVs connected with a HDMI cable that both show the same image. A good viewing experience requires you to also carefully consider glare, reflections, viewing angle, height and the viewer's distance from the screen.

## Decision Making Considerations

	Projector	TV
On-going costs	Power usage high Replacement bulbs (although newer laser projectors have much longer lifetimes)	Power usage low No on-going costs
Other potential costs	Curtains / blinds Mounting bracket AppleTV / Chromecast / Miracast device Theft prevention measures eg window locks, window bars, security cages, alarms, CCTV, tags, leashes Getting a power supply to the projector Getting a VGA and/or HDMI cable to the projector	Mobile trolley if required Mounting bracket AppleTV / Chromecast / Miracast device Theft prevention measures eg window locks, window bars, alarms, CCTV, tags, leashes Getting a power supply to the TV Getting a VGA and/or HDMI cable to the TV
Image size	Adjustable - Medium to Large	Fixed - Medium
Image brightness	Initially good but fades.	Bright image that stays bright for a number of years
Image sharpness	Average	Good
Mobility	Relatively mobile (unless wall/ceiling mounted)	Not easily mobile unless mounted onto a specialist mobile trolley
Annotation	Can project onto a whiteboard and annotate using a whiteboard marker	Can only annotate on the device being displayed (eg. tablet, laptop etc)
Ease of installation	Can be difficult if room is not suitable eg high or low ceiling, wall space not available, difficult to get cables to teacher's desk etc Tends to require a specialist installer Needs a suitably sized separate screen / flat & reflective surface Can look obtrusive in the room	Tends to be easier to install but takes up significant wall-space Could be done by a caretaker Tends to be unobtrusive on a wall

	Projector	TV
Robustness and Ease of Use	<ul style="list-style-type: none"> <li>Can be prone to brackets becoming loose</li> <li>Fans can be noisy</li> <li>Can give out a lot of heat</li> <li>Can take some time to start up</li> <li>Vibrations can easily affect image</li> <li>Shadows can be annoying</li> <li>Poor image brightness can mean you need to turn off the lights or close the curtains</li> <li>Requires maintenance like cleaning or replacing filters and bulbs</li> </ul>	<ul style="list-style-type: none"> <li>(Almost) instant-on</li> <li>Silent to operate</li> <li>Don't give out lots of heat</li> <li>Sturdy when properly mounted</li> <li>Shadows are not an issue</li> <li>Little maintenance required</li> </ul>
Additional possible features	Interactivity either built-in using special pens or via an IWB Projector	<ul style="list-style-type: none"> <li>Internet capabilities and apps</li> <li>Touch-screen interactivity</li> </ul>

#### Notes

- Unless a TV is being used for small group work or the projector/TV has particularly good built-in speakers, a separate audio system is also likely to be required
- Wireless connectivity from the device to the projector or TV of some kind is preferable to having to cable-in from a fixed location. This allows for greater mobility and sharing of what is on everybody's screen rather than just what is on the teacher's screen. Wireless connectivity can be achieved either via in-built capability or a separate device like AppleTV, Chromecast, Miracast or others. Please visit the CLA Guide [Options for Displaying Mobile Devices on TV and Projector Screens](#)
- Connecting the projector or tv to the school network and internet can add functionality but also complexity. Carefully consider if you would really use this functionality to justify the additional expense required.
- New, LED bulb-free projectors are becoming available that don't require bulb replacements but these are currently considerably more expensive

This guide has been produced in response to a number of specific queries about TV's and Projectors from schools. It should not be read as a recommendation or endorsement of any specific product. The Connected Learning Advisory is a Ministry of Education supported service that provides schools with technology information relevant to their queries and does not recommend one product over another.



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