

https://vuw.sharepoint.com/:w:/r/sites/COL_MoEIAQTechAdvisoryPanel/Shared%20Documents/Winter%20ventilation%20advice/Brief%20points%20of%20advice%20for%20starting%20Term%203.docx?d=wde9b869b977142739e2a53ea5b83c5df&csf=1&web=1&e=40s7X0

Kind regards,

Mark

Prof. Mark Jermy

Dept. Mechanical Engineering

University of Canterbury, New Zealand

9(2)(a)

From: Renelle Gronert <Renelle.Gronert@education.govt.nz>

Sent: Friday, July 15, 2022 8:39 AM

To: Ian Longley <Ian.Longley@niwa.co.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Jeremy.Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

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Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Thanks all.

Its great to get instruction out there, BUT there is a reactance in some areas-

- Outdoor noise
- Not reaching 18 degC (maybe more union focused around work condition) so why do that.

We don't want to be wordy as too many words don't get read. But I did wonder if there was a smaller box of colour with writing that advised the reasons why we take the actions – keeping it simple - better brain function/ better health / etc? Also maybe with a picture clipped from the Nanaogirl ventilation piece (a fun one) and link address to find it.

Many thanks - Kia ora rawa atu

Renelle Gronert | Senior Manager - School Design
Te Puna Hanganga, Matihiko | Infrastructure & Digital

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Auckland Mt Eden Office

education.govt.nz

*He mea tārai e mātou te mātauranga kia rangatira ai, kia mana taurite ai ōna huanga
We shape an education system that delivers equitable and excellent outcomes*

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Seconded!

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Sent: Thursday, July 14, 2022 2:56:33 PM
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Yes agreed heat, sneak, reboot covers all the main points in a simple way. I (very roughly) drafted a poster at

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Importance: High

Thanks all for the discussion today.

Late today we had it confirmed that we will be providing some direct information into classrooms to help remind teachers on the pertinent use of masking and ventilation, for the start of Term 3. Form TBC but think graphical, not many words, maybe an A4 poster that can go on the door as you head in. Half masking, half ventilation but up to wider team if other measures go on it too. **I was hoping to defer this into next week's VTAG but round-robin feedback ASAP appreciated (sorry).**

Our challenge is to pull our advice down to what we believe are the three more pertinent ventilation points for a TEACHER (and other occupants of the room) to be mindful of. Attached are some current material, and we need to focus on what the room occupants can control or moderate – for example, often teachers cannot control pre-heat. We will still cover the full set of advice through other mediums. We want this poster to be assertive i.e. 'just tell us what to do' advice that anyone can get – including young students.

My starter for ten (sticking with the sneak, heat and reboot theme yesterday with some tweaks), and these are the CONCEPTS not the final wording:

1. **Windows:** Open it by a little when you can't open it a lot, and close it when you have to. Sneak them open whenever you can. Don't default to full closed just because. If you can, fully open.
2. **Heating:** Keep warm, and don't make it cold just to make it fresh. If it's cold, get it to 18 degrees before you start sneaking windows open. Preheating, warm clothing, ongoing heating all fit within this. Nothing we do should result in cold classrooms or students.
3. **Refresh breaks:** Reboot the room at least 4 times a day. A few minutes with everything wide open will blast out the bugs but won't blast out the heat. Airing out the room during breaks also fits into this. '4 times' is invented to keep it simple (i.e. our data suggests a 930am break would do the most good – but easier just to have this happen regularly; once an hour to impactful on learning).

Trying to be very direct and nuanced in this – i.e. 'three ventilation tips for classrooms that will help reduce COVID-19 transmission this winter season'. Hence aiming for an easy catch-phrase that can be graphically represented like **sneak, heat and reboot**; or **keep it fresh, keep it warm and REBOOT**.

But the key questions – do VTAG members agree these are the three themes we should be emphasising with the occupants in direct control of the classroom through the school day? Are we overlooking other parts of our ventilation guidance that are MORE beneficial to highlight than these?

Note I've left CO2 and air cleaners out as these are not a tool in all spaces. We might following this have a response-style poster – i.e. one you stick on the door of a room we believe has higher risk due to activities or property factors that point to other more specific mitigations (i.e. This room has an air cleaner in it for a reason – turn it on FULL all day!).

All ideas and feedback welcomed!

Thanks again,

Scott MacKenzie
Programme Director – Ventilation (COVID-19)

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Dr Ian Longley
Principal Scientist - Air Quality
Programme Leader - Atmospheric Environment, Health and Society

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Sofia Craig

From: Robyn Phipps <robyn.phipps@vuw.ac.nz>
Sent: Friday, 15 July 2022 11:04 am
To: Mark Jermy; Renelle Gronert; Ian Longley; Mikael Boulic; Scott MacKenzie; Jeremy.Tuohy; Manfred Plagmann; Perry Davy
Cc: Tracey.jury@sweeneyvesty.com; Jason Chen; Euan Russell; Guy Coulson; Ackley Aniebietabasi; Michelle Patience
Subject: Re: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)
Categories: Read

I recommend that for the heater image we replace the radiator heater with a heat pump. There is still the false notion that a heat pump is a ventilator and most classrooms have a heat pump so show what they will be using.

R

From: Mark Jermy <mark.jermy@canterbury.ac.nz>
Date: Friday, 15 July 2022 at 9:25 AM
To: Renelle Gronert <Renelle.Gronert@education.govt.nz>, Ian Longley <Ian.Longley@niwa.co.nz>, Mikael Boulic <m.boulic@massey.ac.nz>, Scott MacKenzie <scott.mackenzie@education.govt.nz>, Robyn Phipps <robyn.phipps@vuw.ac.nz>, Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>, Manfred Plagmann <Manfred.Plagmann@branz.co.nz>, Perry Davy <p.davy@gns.cri.nz>
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Great ideas- I added a few things to the document on Teams to capture this.

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All ideas and feedback welcomed!

Thanks again,

Scott MacKenzie
Programme Director – Ventilation (COVID-19)

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Dr Ian Longley
Principal Scientist - Air Quality
Programme Leader - Atmospheric Environment, Health and Society

9(2)(a)

National Institute of Water & Atmospheric Research Ltd (NIWA)
41 Market Place Viaduct Harbour Auckland New Zealand

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Sofia Craig

From: Robyn Phipps <robyn.phipps@vuw.ac.nz>
Sent: Friday, 15 July 2022 11:25 am
To: Renelle Gronert; Ian Longley; Mark Jermy; Mikael Boulic; Scott MacKenzie; Jeremy.Tuohy; Manfred Plagmann; Perry Davy
Cc: Tracey.jury@sweeneyvesty.com; Jason Chen; Euan Russell; Guy Coulson; Ackley Aniebietabasi; Michelle Patience
Subject: Re: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)
Categories: Read

Agree these will be the barriers esp down south. I also recommend we progress with the triage of problem classrooms (windows that don't open/or can't open due to noise/ambient pollution) and work on cheap ventilation/heat and heat recovery solutions.

R

From: Renelle Gronert <Renelle.Gronert@education.govt.nz>
Date: Friday, 15 July 2022 at 8:39 AM
To: Ian Longley <Ian.Longley@niwa.co.nz>, Mark Jermy <mark.jermy@canterbury.ac.nz>, Mikael Boulic <m.boulic@massey.ac.nz>, Scott MacKenzie <scott.mackenzie@education.govt.nz>, Robyn Phipps <robyn.phipps@vuw.ac.nz>, Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>, Manfred Plagmann <Manfred.Plagmann@branz.co.nz>, Perry Davy <p.davy@gns.cri.nz>
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Thanks all.

Its great to get instruction out there, BUT there is a reactance in some areas-

- Outdoor noise
- Not reaching 18 degC (maybe more union focused around work condition) so why do that.

We don't want to be wordy as too many words don't get read. But I did wonder if there was a smaller box of colour with writing that advised the reasons why we take the actions – keeping it simple - better brain function/ better health / etc? Also maybe with a picture clipped from the Nanaogirl ventilation piece (a fun one) and link address to find it.

Many thanks - Kia ora rawa atu

Renelle Gronert | Senior Manager - School Design
Te Puna Hanganga, Matihiko | Infrastructure & Digital

DDI +6444637061 | Mobile 9(2)(a) [REDACTED]
Auckland Mt Eden Office

[education.govt.nz](https://www.education.govt.nz)

*He mea tārai e mātou te mātauranga kia rangatira ai, kia mana taurite ai ōna huanga
We shape an education system that delivers equitable and excellent outcomes*

From: Ian Longley <Ian.Longley@niwa.co.nz>

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Seconded!

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Kind regards,

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From: Mikael Boulic <M.Boulic@massey.ac.nz>

Sent: Thursday, July 14, 2022 2:56:33 PM

To: Mark Jermy <mark.jermy@canterbury.ac.nz>; Ian Longley <Ian.Longley@niwa.co.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

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Mark

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Dept. Mechanical Engineering
University of Canterbury, New Zealand
9(2)(a) [REDACTED]

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Sent: Friday, 15 July 2022 9:23 am
To: Ian Longley; Mark Jermy; Boulic, Mikael; Scott MacKenzie; Robyn Phipps; Manfred Plagmann; Perry Davy
Cc: Tracey.jury@sweeneyvesty.com; Jason Chen; Euan Russell; Renelle Gronert; Guy Coulson; Ackley Aniebietabasi; Michelle Patience
Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)
Categories: Read

Thirderd...(is that a real word?)

From: Ian Longley <Ian.Longley@niwa.co.nz>
Sent: Friday, 15 July 2022 8:32 am
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Note I’ve left CO2 and air cleaners out as these are not a tool in all spaces. We might following this have a response-style poster – i.e. one you stick on the door of a room we believe has higher risk due to activities or property factors that point to other more specific mitigations (i.e. This room has an air cleaner in it for a reason – turn it on FULL all day!).

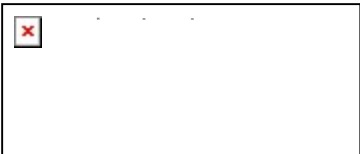
All ideas and feedback welcomed!

Thanks again,

Scott MacKenzie
Programme Director – Ventilation (COVID-19)

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Dr Ian Longley
Principal Scientist - Air Quality
Programme Leader - Atmospheric Environment, Health and Society
9(2)(a)

National Institute of Water & Atmospheric Research Ltd (NIWA)
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Sofia Craig

From: Tracey Jury
Sent: Friday, 15 July 2022 4:04 pm
To: Scott MacKenzie; Michelle Patience
Subject: CO2 poster - first draft
Attachments: Co2 poster v1.jpg; Co2 poster v2.jpg

Hi Scott, Michelle

Please see attached two versions of the laminate CO2 poster for your review and consideration.

As you review, a few things to keep in mind:

- The fox library didn't extend to a hard-hatted fox or one with a hammer for 2000ppm. I had a bit of a review with Dylan and think this is the most suitable option – if we feel strongly, we can look at others, but at this point it is a “how much time is that worth” conversation.
- We're at the point where we need to make a decision on the hero terms – once we choose them and put them on this poster there's no going back from it. Michelle and I are broadly comfortable with them and note that changing the words will take considerable design time on Monday, so if we do it let's only do it once.

And as Michelle has noted, we're also in the middle of a design resource crunch. If there are minimal edits to this poster, I can brief Dylan to pick up the PAC poster (instead of taking it to another external supplier). If large edits are needed, that will pretty much exclude Dylan from being able to support on other resources.

Take a look and let me know your thoughts.

Thanks,
Tracey



Help Slow COVID-19

And other illnesses using the magic of fresh air.
Every little bit helps!

HEAT

The room so windows can be opened earlier in the day

SNEAK

Open windows as much as practical, while staying warm. Every little bit helps!

REBOOT

The room and clear the air by briefly opening all windows and doors

Brilliant,
Healthy,
Fresh air!



800 ppm

It's feeling and smelling stuffy in here..



1250 ppm

Get some fresh air in here... ASAP!



2000 ppm

Released under the Official Information Act 1982

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Fresh air!



800 ppm

It's feeling and
smelling stuffy
in here..



1250 ppm

Get some
fresh air in here...
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so windows
can be opened
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Open windows
as much as
practical, while
staying warm.
Every little bit
helps!

REBOOT

The room
and clear the air
by briefly opening
all windows
and doors

Scan the QR code to learn more
about how to quickly assess whether
a space is well ventilated.

Sofia Craig

From: Scott MacKenzie
Sent: Saturday, 16 July 2022 4:57 pm
To: Tracey Jury; Michelle Patience
Subject: RE: CO2 poster - first draft

Hi thoughts in VTAG chat in which I tidied all the feedback so far – see if they come/fight back. Biggest issue will be ‘sustained’ and getting a bit more of the info on the page so it makes sense (what the hell is a PPM?).

The third fox I’d like him/her changing from happy (under 800), to squint (are you going to do something because it’s getting higher...) to someone ‘determined’ to take action rather than ‘frightened’. The risk is you are telling schools to be scared if it’s over 2000ppm – as opposed to trying to say ‘can’t put it off any longer – gotta do it’.

I don’t like playing the ‘draw me something’ game. I assume the fox comes from a preformed library of this fox in various poses – can we not just please see what the library of options is, either concluding it’s this one or there’s one better?

Scott MacKenzie
Programme Director – Ventilation (COVID-19)

From: Tracey Jury <Tracey.Jury@education.govt.nz>
Sent: Friday, 15 July 2022 4:04 pm
To: Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>
Subject: CO2 poster - first draft

Hi Scott, Michelle

Please see attached two versions of the laminate CO2 poster for your review and consideration.

As you review, a few things to keep in mind:

- The fox library didn’t extend to a hard-hatted fox or one with a hammer for 2000ppm. I had a bit of a review with Dylan and think this is the most suitable option – if we feel strongly, we can look at others, but at this point it is a “how much time is that worth” conversation.
- We’re at the point where we need to make a decision on the hero terms – once we choose them and put them on this poster there’s no going back from it. Michelle and I are broadly comfortable with them and note that changing the words will take considerable design time on Monday, so if we do it let’s only do it once.

And as Michelle has noted, we’re also in the middle of a design resource crunch. If there are minimal edits to this poster, I can brief Dylan to pick up the PAC poster (instead of taking it to another external supplier). If large edits are needed, that will pretty much exclude Dylan from being able to support on other resources.

Take a look and let me know your thoughts.

Thanks,
Tracey

Sofia Craig

From: Tracey Jury <tracey.jury@sweeneyvesty.com>
Sent: Friday, 15 July 2022 4:59 pm
To: Scott MacKenzie; Renelle Gronert; Ian Longley; Robyn Phipps; Mark Jermy; Boulic, Mikael; Jeremy.Tuohy; Manfred Plagmann; Perry Davy
Cc: Jason Chen; Euan Russell; Guy Coulson; Ackley Aniebietabasi; Michelle Patience; Tracey Jury
Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)
Attachments: Co2 poster v1.jpg; Co2 poster v2.jpg

Hello all,

We have created a first draft of the poster that will be printed and distributed to all schools to sit alongside CO2 monitors.

The designer has put together two versions (attached) and our comms team is split on their preferred versions. Both need wording finessed, but would appreciate **initial feedback on the concept as well as any preference on the two options over the weekend**. We'll then refine on Monday so that it can be finalised early next week.

Given such short deadlines, we won't be making any significant changes to the design – instead, we're looking to refine wording etc.

Best regards,
Tracey

From: Scott MacKenzie <Scott.MacKenzie@education.govt.nz>
Sent: Friday, 15 July 2022 12:04 PM
To: Renelle Gronert <Renelle.Gronert@education.govt.nz>; Ian Longley <Ian.Longley@niwa.co.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Jeremy.Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>
Cc: Tracey Jury <tracey.jury@sweeneyvesty.com>; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <Ackley.Aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>
Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Hi all – round robin certainly working this Friday! 😊

The intent here was to ensure we were on point with regard to the three main points of focus – being heat, partially open windows (without killing heat) and airing out the room regularly. Looking across all responses I and reading that we have VTAG support for this. We now hand over to the comms extraordinaries to draw up and word it in a way that makes sense, is simple and appeals to a 5-95 year old.

On a related front, and in confidence, the Ministry will be distributing +6000 Aranet CO2 monitors to schools at the start of Term 3 (and another +1500 in reserve). This time, I've managed to have it so these are the PRO devices going out, which can talk to a base station via radio frequency as we are doing in 40 of the 100 schools. Though we do not have a current intention to then network/capture data from them on mass, having the devices out there means this becomes a more accessible option be it Ministry-led, school-led or research-led down the track. At the same time we will be doing revisions to our current posters and providing version to go in the classrooms for six winter tips, how and when to use air cleaners, and a new one on how to respond to CO2 levels. All of these will follow the same narrative for the 'pamphlet' being discussed below.

This is a massive and urgent undertaking that I'm in the middle of logistically organising now, and there are other strands to it (for example, accelerating the Te Haratau fixed IEM device initiative as well).

I will summarise the below for our comms team, and thanks for giving us some confidence that we're on track, expect more to come out 'shortly'.

Have a great weekend,

Scott MacKenzie

Programme Director – Ventilation (COVID-19)

From: Renelle Gronert <Renelle.Gronert@education.govt.nz>

Sent: Friday, 15 July 2022 11:55 am

To: Ian Longley <ian.Longley@niwa.co.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Jeremy.Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <Ackley.Aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

'Resupply of fresh air' is often mentioned, Reboot was trying to appeal to the school lingo, flush will have comment for sure...school kids context here 😊

Many thanks - Kia ora rawa atu

Renelle Gronert | Senior Manager - School Design
Te Puna Hanganga, Matihiko | Infrastructure & Digital

DDI +6444637061 | Mobile 9(2)(a) [REDACTED]
Auckland Mt Eden Office

education.govt.nz

*He mea tārai e mātou te mātauranga kia rangatira ai, kia mana taurite ai ōna huanga
We shape an education system that delivers equitable and excellent outcomes*

From: Ian Longley <ian.Longley@niwa.co.nz>

Sent: Friday, 15 July 2022 11:30 am

To: Robyn Phipps <robyn.phipps@vuw.ac.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Jeremy.Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <Ackley.Aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

FLUSH might not be taken seriously!

I prefer REFRESH

From: Robyn Phipps <robyn.phipps@vuw.ac.nz>

Sent: Friday, 15 July 2022 11:27 AM

To: Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Ian Longley <Ian.Longley@niwa.co.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: Re: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

I like FLUSH better than REBOOT – again more direct.

Apologies for multiple emails – working through the email chain backwards.

R

From: Mark Jermy <mark.jermy@canterbury.ac.nz>

Date: Friday, 15 July 2022 at 8:21 AM

To: Mikael Boulic <m.boulic@massey.ac.nz>, Ian Longley <Ian.Longley@niwa.co.nz>, Scott MacKenzie <scott.mackenzie@education.govt.nz>, Robyn Phipps <robyn.phipps@vuw.ac.nz>, Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>, Manfred Plagmann <Manfred.Plagmann@branz.co.nz>, Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com <Tracey.jury@sweeneyvesty.com>, Jason Chen <Jason.Chen@education.govt.nz>, Euan Russell <Euan.Russell@health.govt.nz>, Renelle Gronert <Renelle.Gronert@education.govt.nz>, Guy Coulson <guy.coulson@niwa.co.nz>, Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>, Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: Re: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Hello all, it seems we are broadly in agreement that a 3 point poster for classrooms covering Heat, Sneak/Crack Open and Reboot/Flush is a good idea for getting the essential message direct to those who can implement it in classrooms. I move that VTAG strongly recommends this message is disseminated as soon as possible and no later than the beginning of Term 3 and that, if MoE agrees with our recommendation, we make a subgroup available to work with MoE communications specialists to finalise the wording and graphics.

Kind regards,
Mark

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From: Mikael Boulic <M.Boulic@massey.ac.nz>

Sent: Thursday, July 14, 2022 2:56:33 PM

To: Mark Jermy <mark.jermy@canterbury.ac.nz>; Ian Longley <Ian.Longley@niwa.co.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com <Tracey.jury@sweeneyvesty.com>; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <Ackley.Aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Hi Mark, Ian and colleagues,

We need it as simple as possible. We learnt that people are busy, so less text as possible.

1. Pre heat before class start and keep it at 18 C during class
2. Open windows as much as you feel ok. Even a 2 cm opening will help. (we should have the sticker "open me" on the picture of the window)
3. Flush the classroom during breaks to start the next class with fresh air

Mik

From: Mark Jermy <mark.jermy@canterbury.ac.nz>

Sent: Thursday, 14 July 2022 2:38 PM

To: Ian Longley <ian.Longley@niwa.co.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Mikael Boulic <M.Boulic@massey.ac.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: Re: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Yes agreed heat, sneak, reboot covers all the main points in a simple way. I (very roughly) drafted a poster at

https://vuw.sharepoint.com/:w:/r/sites/COL_MoEIAQTechAdvisoryPanel/Shared%20Documents/Winter%20ventilation%20advice/Brief%20points%20of%20advice%20for%20starting%20Term%203.docx?d=wde9b869b977142739e2a53ea5b83c5df&csf=1&web=1&e=BwnShY

Kind regards,

Mark

Prof. Mark Jermy
Dept. Mechanical Engineering
University of Canterbury, New Zealand
9(2)(a)

From: Ian Longley <ian.Longley@niwa.co.nz>

Sent: Thursday, July 14, 2022 1:20 PM

To: Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com <Tracey.jury@sweeneyvesty.com>; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

HEAT, SNEAK and REBOOT – in that order!

From: Scott MacKenzie <Scott.MacKenzie@education.govt.nz>

Sent: Wednesday, 13 July 2022 6:34 PM

To: Robyn Phipps <robyn.phipps@vuw.ac.nz>; Ian Longley <Ian.Longley@niwa.co.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Importance: High

Thanks all for the discussion today.

Late today we had it confirmed that we will be providing some direct information into classrooms to help remind teachers on the pertinent use of masking and ventilation, for the start of Term 3. Form TBC but think graphical, not many words, maybe an A4 poster that can go on the door as you head in. Half masking, half ventilation but up to wider team if other measures go on it too. **I was hoping to defer this into next week's VTAG but round-robin feedback ASAP appreciated (sorry).**

Our challenge is to pull our advice down to what we believe are the three more pertinent ventilation points for a TEACHER (and other occupants of the room) to be mindful of. Attached are some current material, and we need to focus on what the room occupants can control or moderate – for example, often teachers cannot control pre-heat. We will still cover the full set of advice through other mediums. We want this poster to be assertive i.e. 'just tell us what to do' advice that anyone can get – including young students.

My starter for ten (sticking with the sneak, heat and reboot theme yesterday with some tweaks), and these are the CONCEPTS not the final wording:

1. **Windows:** Open it by a little when you can't open it a lot, and close it when you have to. Sneak them open whenever you can. Don't default to full closed just because. If you can, fully open.
2. **Heating:** Keep warm, and don't make it cold just to make it fresh. If it's cold, get it to 18 degrees before you start sneaking windows open. Preheating, warm clothing, ongoing heating all fit within this. Nothing we do should result in cold classrooms or students.
3. **Refresh breaks:** Reboot the room at least 4 times a day. A few minutes with everything wide open will blast out the bugs but won't blast out the heat. Airing out the room during breaks also fits into this. '4 times' is invented to keep it simple (i.e. our data suggests a 930am break would do the most good – but easier just to have this happen regularly; once an hour to impactful on learning).

Trying to be very direct and nuanced in this – i.e. 'three ventilation tips for classrooms that will help reduce COVID-19 transmission this winter season'. Hence aiming for an easy catch-phrase that can be graphically represented like **sneak, heat and reboot**; or **keep it fresh, keep it warm and REBOOT**.

But the key questions – do VTAG members agree these are the three themes we should be emphasising with the occupants in direct control of the classroom through the school day? Are we overlooking other parts of our ventilation guidance that are MORE beneficial to highlight than these?

Note I've left CO2 and air cleaners out as these are not a tool in all spaces. We might following this have a response-style poster – i.e. one you stick on the door of a room we believe has higher risk due to activities or property factors that point to other more specific mitigations (i.e. This room has an air cleaner in it for a reason – turn it on FULL all day!).

All ideas and feedback welcomed!

Sofia Craig

From: Scott MacKenzie
Sent: Sunday, 17 July 2022 1:42 pm
To: Tracey Jury
Cc: Michelle Patience
Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Agree.

Even simpler = "If CO2 levels stay high for an hour or more, follow these tips to refresh the air".
Agree with other points except stay with "as much as practical" – same reason I don't want to say x mins for a refresh break/reboot. As soon as we start with cm we get into vague territory of if it will work if they've got 5 v 10 v 1 working window.

I flicked him the PAC one and he agrees with its content.

Scott MacKenzie
Programme Director – Ventilation (COVID-19)

From: Tracey Jury <tracey.jury@sweeneyvesty.com>
Sent: Sunday, 17 July 2022 1:02 pm
To: Scott MacKenzie <Scott.MacKenzie@education.govt.nz>
Cc: Michelle Patience <Michelle.Patience@education.govt.nz>
Subject: FW: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Hi Scott,

Mark-up looks all good and easy – just two points before I go to our designer tomorrow morning to get these changes made.

- Space might start to become a constraint. I'll manage this as best as I can with the designer, but at the end of the day they're the experts. We can help them by making sure that the extra message is as short and as simple as possible. My preference would be a meld of yours and Mark Jermy's version: "High, sustained CO2 levels means that there is less fresh air coming in and more bugs hanging around. If CO2 levels stay high for an hour or more, follow these tips to refresh the air." My personal view is that we start to complicate the message when we get into brain function etc. We're already said we're doing this to help slow the spread of COVID-19 – that's really all they need to know.
- I would strongly pushback on the suggestion on making the CTA boxes diagonal – one for space and two because while it sounds easy it, it will be a difficult, time consuming job and we still don't know whether or not we will need to rely on our designer to progress with any other work. Instead, let's tweak around the edges by adding some white space as a visual break (or similar) to disassociate the two core elements. Also think that the disassociation is clearer on version 1 because the heading is in the middle, but appreciate that the VTAG has voted for V2.

Tracey

Tracey Jury | Consultant | SweeneyVesty | www.sweeneyvesty.com
9(2)(a)
Level 3, City Chambers, Cnr Johnston & Featherston Streets, Wellington 6011, New Zealand
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From: Mark Jermy <mark.jermy@canterbury.ac.nz>
Sent: Sunday, 17 July 2022 9:32 AM
To: Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Jeremy.Tuohy <Jeremy.Tuohy@health.govt.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Ian Longley <Ian.Longley@niwa.co.nz>; Tracey Jury <tracey.jury@sweeneyvesty.com>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Mikael Boulic <m.boulic@massey.ac.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>
Cc: Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Guy Coulson <guy.coulson@niwa.co.nz>; Ackley Aniebietabasi <Ackley.Aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>; Tracey Jury <Tracey.Jury@education.govt.nz>
Subject: Re: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Agree with all your points Scott.

I prefer version 2 (the version with the white background).

I suggest:

"HEAT The room..." becomes "HEAT the room..."

"SNEAK Open windows..." becomes "SNEAK open windows..."

"REBOOT The room..." becomes "REBOOT the room..."

(i.e. the second word starts with a lowercase letter instead of a capital)

(my reason for suggesting this is so that it reads as a single sentence i.e. "Sneak open windows..." instead of "Sneak. Open windows..."

Delete the first instance of "Every little bit helps" (the same phrase is used in the SNEAK box and it has more impact there.)

Change "open windows as much as practical" to "open windows 2-3 cm". I think "As much as practical" will have some people fearing they have to open the windows wide and make the room cold.

Scott's text under 'missing messaging' looks good. A slightly modified wording might be "CO2 goes up and down but if it stays high over an hour means there's less fresh air coming in and more bugs hanging around. Use HEAT, SNEAK, REBOOT to maintain healthy air and better brain function."

Perhaps the HEAT, SNEAK, REBOOT bubbles could be arranged on a diagonal, and the 800, 1250, 2000 boxes remain arranged horizontally (to break the false 1:1 association).

Kind regards,

Mark

Prof. Mark Jermy

Dept. Mechanical Engineering

University of Canterbury, New Zealand

9(2)(a)

From: Scott MacKenzie <Scott.MacKenzie@education.govt.nz>

Sent: Saturday, July 16, 2022 4:39 PM

To: Jeremy.Tuohy <Jeremy.Tuohy@health.govt.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Ian Longley <ian.Longley@niwa.co.nz>; Tracey Jury <tracey.jury@sweeneyvesty.com>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Mikael Boulic <m.boulic@massey.ac.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Guy Coulson <guy.coulson@niwa.co.nz>; Ackley Aniebietabasi <Ackley.Aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>; Tracey Jury <Tracey.Jury@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Happy Saturday my 2 cents reflecting on the below comments and original. Also underneath my markup is the full set of stuff intended to go to schools FYI – you’ll see there’s other opportunities in the pack to cover advice.

- Agree we need to loosen the association between heat/sneak/reboot and 800/1250/2000 – it’s not 1:1.
- Agree ‘briefly’ needs a number, suggest ‘a few minutes’ to avoid the ‘seconds’ briefly. 10 mins too long on coldest day, risk too much heat loss, risk of stringent adoption (“you kid is cold because the Ministry said we MUST open everything for 10 minutes ...”). If they do not enough mins and CO2 levels don’t drop back to Green, they fall back into the guidance already on the poster to do it for longer.
- Agree was missing call to action at 1250, and also clarified it’s <800 is good air etc.
- **The big one:** Set of notes there that need to be represented somehow – key missing point is **PEAK vs SUSTAINED**. Everyone currently uses display for PEAK – you risk pandemonium in classes if we create a call to action every time, and as soon as CO2 levels rise. So I’m suggesting a **60 minute** definition which we’ve talked about before as the definition of **SUSTAINED** and also linking to a the impact of **DWELL TIME**. Need to be realistic here between what they can reasonably do (e.g. at the end of each period) versus what would be too disruptive to implement (e.g. every 20 or 30 mins, 10 min reboot – that would be reality in lots of schools if they based it on a shorter time).

On other points:

- Fox out of room @ 2000 = yes we discussed or if mask in hand, but risk over emphasising this measure and can’t students encouraged to abscond class (“that poster tells us it’s dangerous and we all need to GET OUT NOW!”). Remember I’ve had schools shut down operations at 700ppm, freeze rooms because it’s 1000ppm, put on masks at 1100ppm and others ignore 4000ppm. Lift importance of the simple actions being taken rather than drastic action. “ASAP” was as strong as I thought we could be and communicates ‘consider alternatives, take action’ as per our calculator etc.
- Don’t think we need picture of CO2 monitor with the added words – stay device agnostic. Three colours along the bottom match the 3 colours on the bottom of the Aranet exactly.
- I have no evidence to back that ‘most classrooms will automatically be heated in term 3’ – so many factors and designs at play (central boiler vs heat pumps without scheduling controls etc). We have lots of evidence of heating starting when rooms are occupied followed by high CO2, and remembering those in the room don’t always have full control over their heating. Didn’t want to say pre-heat as it needs to continue. How much and how much more depends on LOTS of factors. Felt key point was to link it to “SO WINDOWS CAN BE OPENED EARLIER”. A tough one.

Which option was asked – so far on votes in, version 2 as below hence my focus on markup.

Note we’ll be locking this in for print on Monday – so close to perfect enough for a 5 year old (“Teacher, what does sustained mean?”) is a good standard for us to seek.



TE TĀHURU O TE KĀTAURANGA
MINISTRY OF EDUCATION

Help Slow COV

And other illnesses using the magic of fresh air
Every little bit helps!

HEAT

The room so windows can be opened earlier in the day

SNEAK

Open windows as much as practical, while staying warm. Every little bit helps!

Fresh air, let's keep it that way!



< 800 ppm

It's getting stuffy in here, time to open more windows or take a break soon....



1250+ ppm

Missing messaging (rough draft):

High sustained CO2 levels in a room means there's less fresh air flowing through, and more bugs hanging around.

CO2 levels will continually fluctuate, but when they stay elevated for 60 minutes or more – employ these tactics to maintain a healthy learning environment.

If the CO2 monitor says..... (linking ppms to the device readout – think just a statement fine)

CO2 = Carbon Dioxide
Ppm = parts per million

What's in the box?



Intro Letter

Why, key messages, what's in the box, more support etc



Nanogirl Flyer

Link to ventilation video and call to action. Small A5 or A6 slip.



Teacher Pamphlets

Summarising masking, ventilation and other COVID-19 advice.



Our Setup Guide

How to best configure in NZ schools. Replaces factory user manual.



CO₂ Posters

Poster explaining PPM levels and on-room calls to action.



Vent. Posters

Poster explaining Term 3 advice ('tips for winter' existing poster, updated).



PAC Poster(s)

Poster to address issues: On FULL, best position, won't reduce CO₂ levels.



Property Checklist

Checking & fixing windows, heating etc



Aranet Devices

1-20 devices depending on school roll & devices already received.

From: Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>

Sent: Friday, 15 July 2022 7:06 pm

To: Robyn Phipps <robyn.phipps@vuw.ac.nz>; Ian Longley <Ian.Longley@niwa.co.nz>; Tracey Jury <tracey.jury@sweeneyvesty.com>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Mikael Boulic <m.boulic@massey.ac.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Guy Coulson <guy.coulson@niwa.co.nz>; Ackley Aniebietabasi <Ackley.Aniebietabasi@education.govt.nz>; Michelle Patience

<Michelle.Patience@education.govt.nz>; Tracey Jury <Tracey.Jury@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

My take 1.

The action actually needs to come in the green zone, to KEEP the air clean, so can the foxy little critter say, Fresh air, lets keep it that way !

The fox and the Heat Sneak and Reboot are sort of linked so that it goes

1. Preheat
2. Less than 800, Great air keep it that way by ...
3. Sneak the windows open a bit BUT...
4. < 1250, It is getting a bit orange
5. Reboot Get those windows really open
6. >2000, get that fox outa there! (have the fox disappearing out of the picture)

Jeremy

From: Robyn Phipps <robyn.phipps@vuw.ac.nz>

Sent: Friday, 15 July 2022 5:47 pm

To: Ian Longley <ian.Longley@niwa.co.nz>; Tracey Jury <tracey.jury@sweeneyvesty.com>; Scott MacKenzie <scott.mackenzie@education.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Mikael Boulic <m.boulic@massey.ac.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Guy Coulson <guy.coulson@niwa.co.nz>; Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>; tracey.jury@education.govt.nz

Subject: Re: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

My Nit picking take 1:

I'd like to see a call to action on the middle band. I'm still uncomfortable as 1250ppm. Agree to replace briefly with 10 mins.

Ideally there is a version of the poster for classrooms without a CO2 monitor.

The message is really ... if people are present then open the windows a crack.

Robyn

From: Ian Longley <ian.Longley@niwa.co.nz>

Date: Friday, 15 July 2022 at 5:16 PM

To: Tracey Jury <tracey.jury@sweeneyvesty.com>, Scott MacKenzie <scott.mackenzie@education.govt.nz>, Renelle Gronert <Renelle.Gronert@education.govt.nz>, Robyn Phipps <robyn.phipps@vuw.ac.nz>, Mark Jermy <mark.jermy@canterbury.ac.nz>, Mikael Boulic <m.boulic@massey.ac.nz>, Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>, Manfred Plagmann <Manfred.Plagmann@branz.co.nz>, Perry Davy <p.davy@gns.cri.nz>

Cc: Jason Chen <Jason.Chen@education.govt.nz>, Euan Russell <Euan.Russell@health.govt.nz>, Guy Coulson <guy.coulson@niwa.co.nz>, Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>, Michelle Patience <Michelle.Patience@education.govt.nz>, tracey.jury@education.govt.nz <tracey.jury@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Hi Tracey

Good start!

I know this is tricky and everyone will nitpick, so I'll start.

- Any chance of adding an image of a CO2 monitor to make it abundantly clear that the ppm colour bands relate to the monitor?
- HEAT – I'm assuming most classrooms will automatically be heated in term 3, at least at the start. The pertinent point is to start heating as early as possible and maybe crank it up a bit more than normal – can't offer a concise wording I'm afraid!
- SNEAK – again, an important point is to do this as early as possible – ideally on entering the room
- REBOOT – I know Scott may push back (😊) but I think it's important to indicate we're talking around 5 - 10 minutes here, not 10 seconds. "Briefly" feels just a bit too vague to me.
- Also having 800 ppm/green and HEAT in the same "column" might be misinterpreted that HEAT is a response to having 800 ppm. Any way of "disconnecting" them?

Hope that's helpful!

Ian

From: Tracey Jury <tracey.jury@sweeneyvesty.com>

Sent: Friday, 15 July 2022 4:59 PM

To: Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Ian Longley <ian.Longley@niwa.co.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>; tracey.jury@education.govt.nz

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Hello all,

We have created a first draft of the poster that will be printed and distributed to all schools to sit alongside CO2 monitors.

The designer has put together two versions (attached) and our comms team is split on their preferred versions. Both need wording finessed, but would appreciate **initial feedback on the concept as well as any preference on the two options over the weekend**. We'll then refine on Monday so that it can be finalised early next week.

Given such short deadlines, we won't be making any significant changes to the design – instead, we're looking to refine wording etc.

Best regards,
Tracey

From: Scott MacKenzie <Scott.MacKenzie@education.govt.nz>

Sent: Friday, 15 July 2022 12:04 PM

To: Renelle Gronert <Renelle.Gronert@education.govt.nz>; Ian Longley <ian.Longley@niwa.co.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey Jury <tracey.jury@sweeneyvesty.com>; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi

<Ackley.Aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Hi all – round robin certainly working this Friday! 😊

The intent here was to ensure we were on point with regard to the three main points of focus – being heat, partially open windows (without killing heat) and airing out the room regularly. Looking across all responses I and reading that we have VTAG support for this. We now hand over to the comms extraordinaries to draw up and word it in a way that makes sense, is simple and appeals to a 5-95 year old.

On a related front, and in confidence, the Ministry will be distributing +6000 Aranet CO2 monitors to schools at the start of Term 3 (and another +1500 in reserve). This time, I've managed to have it so these are the PRO devices going out, which can talk to a base station via radio frequency as we are doing in 40 of the 100 schools. Though we do not have a current intention to then network/capture data from them on mass, having the devices out there means this becomes a more accessible option be it Ministry-led, school-led or research-led down the track. At the same time we will be doing revisions to our current posters and providing version to go in the classrooms for six winter tips, how and when to use air cleaners, and a new one on how to respond to CO2 levels. All of these will follow the same narrative for the 'pamphlet' being discussed below.

This is a massive and urgent undertaking that I'm in the middle of logistically organising now, and there are other strands to it (for example, accelerating the Te Haratau fixed IEM device initiative as well).

I will summarise the below for our comms team, and thanks for giving us some confidence that we're on track, expect more to come out 'shortly'.

Have a great weekend,

Scott MacKenzie
Programme Director – Ventilation (COVID-19)

From: Renelle Gronert <Renelle.Gronert@education.govt.nz>

Sent: Friday, 15 July 2022 11:55 am

To: Ian Longley <Ian.Longley@niwa.co.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Jeremy.Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <Ackley.Aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

'Resupply of fresh air' is often mentioned, Reboot was trying to appeal to the school lingo, flush will have comment for sure...school kids context here 😊

Many thanks - Kia ora rawa atu

Renelle Gronert | Senior Manager - School Design
Te Puna Hanganga, Matihiko | Infrastructure & Digital

DDI +6444637061 | Mobile 9(2)(a)

Auckland Mt Eden Office
education.govt.nz

*He mea tārai e mātou te mātauranga kia rangatira ai, kia mana taurite ai ōna huanga
We shape an education system that delivers equitable and excellent outcomes*

From: Ian Longley <ian.Longley@niwa.co.nz>

Sent: Friday, 15 July 2022 11:30 am

To: Robyn Phipps <robyn.phipps@vuw.ac.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Jeremy.Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <Ackley.Aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

FLUSH might not be taken seriously!

I prefer REFRESH

From: Robyn Phipps <robyn.phipps@vuw.ac.nz>

Sent: Friday, 15 July 2022 11:27 AM

To: Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Ian Longley <ian.Longley@niwa.co.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: Re: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

I like FLUSH better than REBOOT – again more direct.

Apologies for multiple emails – working through the email chain backwards.

R

From: Mark Jermy <mark.jermy@canterbury.ac.nz>

Date: Friday, 15 July 2022 at 8:21 AM

To: Mikael Boulic <m.boulic@massey.ac.nz>, Ian Longley <ian.Longley@niwa.co.nz>, Scott MacKenzie <scott.mackenzie@education.govt.nz>, Robyn Phipps <robyn.phipps@vuw.ac.nz>, Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>, Manfred Plagmann <Manfred.Plagmann@branz.co.nz>, Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com <Tracey.jury@sweeneyvesty.com>, Jason Chen <Jason.Chen@education.govt.nz>, Euan Russell <Euan.Russell@health.govt.nz>, Renelle Gronert <Renelle.Gronert@education.govt.nz>, Guy Coulson <guy.coulson@niwa.co.nz>, Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>, Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: Re: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Hello all, it seems we are broadly in agreement that a 3 point poster for classrooms covering Heat, Sneak/Crack Open and Reboot/Flush is a good idea for getting the essential message direct to those who can implement it in classrooms. I move that VTAG strongly recommends this message is disseminated as soon as possible and no later than the beginning of Term 3 and that, if MoE agrees with our recommendation, we make a subgroup available to work with MoE communications specialists to finalise the wording and graphics.

Kind regards,

Mark

Get [Outlook for Android](#)

From: Mikael Boulic <M.Boulic@massey.ac.nz>

Sent: Thursday, July 14, 2022 2:56:33 PM

To: Mark Jermy <mark.jermy@canterbury.ac.nz>; Ian Longley <Ian.Longley@niwa.co.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com <Tracey.jury@sweeneyvesty.com>; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <Ackley.Aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Hi Mark, Ian and colleagues,

We need it as simple as possible. We learnt that people are busy, so less text as possible.

1. Pre heat before class start and keep it at 18 C during class
2. Open windows as much as you feel ok. Even a 2 cm opening will help. (we should have the sticker "open me" on the picture of the window)
3. Flush the classroom during breaks to start the next class with fresh air

Mik

From: Mark Jermy <mark.jermy@canterbury.ac.nz>

Sent: Thursday, 14 July 2022 2:38 PM

To: Ian Longley <Ian.Longley@niwa.co.nz>; Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Mikael Boulic <M.Boulic@massey.ac.nz>; Perry Davy <p.davy@gns.cri.nz>

Cc: Tracey.jury@sweeneyvesty.com <Tracey.jury@sweeneyvesty.com>; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>

Subject: Re: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

Yes agreed heat, sneak, reboot covers all the main points in a simple way. I (very roughly) drafted a poster at

https://vuw.sharepoint.com/:w:/r/sites/COL_MoEIAQTechAdvisoryPanel/Shared%20Documents/Winter%20ventilation%20advice/Brief%20points%20of%20advice%20for%20starting%20Term%203.docx?d=wde9b869b977142739e2a53ea5b83c5df&csf=1&web=1&e=BwnShY

Kind regards,

Mark

Prof. Mark Jermy

From: Ian Longley <Ian.Longley@niwa.co.nz>
Sent: Thursday, July 14, 2022 1:20 PM
To: Scott MacKenzie <Scott.MacKenzie@education.govt.nz>; Robyn Phipps <robyn.phipps@vuw.ac.nz>; Jeremy Tuohy <Jeremy.Tuohy@health.govt.nz>; Manfred Plagmann <Manfred.Plagmann@branz.co.nz>; Mark Jermy <mark.jermy@canterbury.ac.nz>; Boulic, Mikael <m.boulic@massey.ac.nz>; Perry Davy <p.davy@gns.cri.nz>
Cc: Tracey.jury@sweeneyvesty.com <Tracey.jury@sweeneyvesty.com>; Jason Chen <Jason.Chen@education.govt.nz>; Euan Russell <Euan.Russell@health.govt.nz>; Renelle Gronert <Renelle.Gronert@education.govt.nz>; Guy Coulson <Guy.Coulson@niwa.co.nz>; Ackley Aniebietabasi <ackley.aniebietabasi@education.govt.nz>; Michelle Patience <Michelle.Patience@education.govt.nz>
Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)

HEAT, SNEAK and REBOOT – in that order!

From: Scott MacKenzie <Scott.MacKenzie@education.govt.nz>
Sent: Wednesday, 13 July 2022 6:34 PM
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Subject: RE: VTAG Advice: Most pertinent advice for teachers in a classroom (urgent)
Importance: High

Thanks all for the discussion today.

Late today we had it confirmed that we will be providing some direct information into classrooms to help remind teachers on the pertinent use of masking and ventilation, for the start of Term 3. Form TBC but think graphical, not many words, maybe an A4 poster that can go on the door as you head in. Half masking, half ventilation but up to wider team if other measures go on it too. **I was hoping to defer this into next week's VTAG but round-robin feedback ASAP appreciated (sorry).**

Our challenge is to pull our advice down to what we believe are the three more pertinent ventilation points for a TEACHER (and other occupants of the room) to be mindful of. Attached are some current material, and we need to focus on what the room occupants can control or moderate – for example, often teachers cannot control pre-heat. We will still cover the full set of advice through other mediums. We want this poster to be assertive i.e. 'just tell us what to do' advice that anyone can get – including young students.

My starter for ten (sticking with the sneak, heat and reboot theme yesterday with some tweaks), and these are the CONCEPTS not the final wording:

1. **Windows:** Open it by a little when you can't open it a lot, and close it when you have to. Sneak them open whenever you can. Don't default to full closed just because. If you can, fully open.
2. **Heating:** Keep warm, and don't make it cold just to make it fresh. If it's cold, get it to 18 degrees before you start sneaking windows open. Preheating, warm clothing, ongoing heating all fit within this. Nothing we do should result in cold classrooms or students.
3. **Refresh breaks:** Reboot the room at least 4 times a day. A few minutes with everything wide open will blast out the bugs but won't blast out the heat. Airing out the room during breaks also fits into this. '4 times' is