Policy for

Ventilation

Prepared by:	Adopted by Board of Directors
CEO	**Autumn 2022**

Changes to the previous policy are highlighted in yellow

Contents:

Statement of intent

This policy has been developed in conjunction with the relevant guidance and legislation to ensure that all AET schools have an adequate supply of fresh air in enclosed areas.

Everyone within the school requires a minimum standard of fresh air to produce a healthy working environment, one way that this can be provided is by effective ventilation.

This policy should be shared with staff members to help them understand the benefits of effective ventilation in the workplace.

1. Legal framework

This policy has due regard to all relevant legislation and guidance including, but not limited to, the following:

- Education Act 2002
- Education Act 1996 (as amended)
- Children Act 1989
- Health and Safety at Work etc. Act 1974
- The School Premises (England) Regulations 2012 (as amended)
- Public Health England (2021) 'COVID-19: infection prevention and control guidance'
- ESFA (2018) 'BB 101: Ventilation, thermal comfort and indoor air quality'
- UK Health Security Agency (2022) 'Ventilation to reduce the spread of respiratory infections, including COVID-19'

This policy operates in conjunction with the following school policies:

- Health and Safety Policy
- Premises Management Policy
- Infection Control Policy

2. Roles and responsibilities

The Board of Trustees is responsible for:

- Fulfilling its statutory duties under the relevant legislation.
- Ensuring that arrangements are in place to support ventilation procedures.
- Ensuring that staff members responsible for ventilation are properly trained.
- Ensuring that this policy is implemented effectively.

The principal is responsible for:

- The overall implementation of this policy.
- Ensuring that this policy is effectively implemented with stakeholders.
- Ensuring that all relevant staff are aware of this policy and understand their role in its implementation.
- Ensuring that a sufficient number of staff are trained and available to implement this policy.
- Ensuring that a ventilation risk assessment is put in place.

Staff are responsible for:

- Familiarising themselves with, and following, this policy.
- Receiving sufficient training regarding ventilation.

3. Ventilation and air conditioning

The school will ensure that there is an adequate supply of fresh air in enclosed areas of the premises by utilising forms of natural ventilation, e.g. fresh air which comes in through open

windows, doors or air vents, and/or mechanical ventilation, e.g. fans and ducts to bring in fresh air from outside.

Staff will be aware of the role adequate ventilation plays in reducing the risk of aerosol transmission, which occurs when an individual breathes in small particles in the air after another individual has been in the same enclosed area.

The school will ensure that the risk from aerosols is not exacerbated by poor ventilation within the school. Where managing any outbreaks of infection, staff will be aware that ventilation can reduce risk of aerosols but has minimal impact on:

- Droplet transmission e.g. from individuals being in close contact.
- Contact transmission e.g. touching surfaces.

Air conditioning systems that normally run with a recirculation mode will be set up to run on full outside air and are tailored to the design of the building.

Mechanical ventilation systems will remain on at all times, even when the building is unoccupied, with the system set to operate at lower ventilation rates during evenings and weekends.

4. Identifying poorly ventilated areas

The school will identify areas of the premises that are usually occupied and poorly ventilated. These areas will be prioritised for improvement to reduce the risk of aerosol transmission.

The school will follow specific methods when identifying poorly ventilated areas. These will include:

- Looking for areas where individuals work or learn where there is no mechanical ventilation or natural ventilation such as open windows, doors, or vents.
- Checking that mechanical systems provide outdoor air, temperature control, or both. If a system only recirculates air and has no outdoor air supply, the area is likely to be poorly ventilated.
- Identifying areas that feel stuffy or smell unpleasant.
- Checking whether ventilation facilities are blocked by furniture or curtains.
- Assessing ventilation grids for dirt and ensuring they are regularly cleaned.

Staff members will be encouraged to report concerns about the school's ventilation with their line manager.

Where necessary, the school will implement mechanical systems, e.g. extractor fans or air conditioning, to improve poorly ventilated areas.

[Updated] A contingency plan will be put in place if an area is deemed poorly ventilated, and this plan will be implemented quickly to resolve the issue. See the improving natural ventilation and improving mechanical ventilation sections for ways of improving ventilation

5. Using CO_2 monitors

The school will use CO2 monitors to identify areas in which there is a build-up of CO2; areas with high levels of CO2 will be considered poorly ventilated areas, and the school will ensure that the ventilation is improved.

Ventilation will be improved by assessing the CO_2 levels in school buildings by using a CO_2 monitor to identify poorly ventilated areas. These monitors will also be used to assess whether current ventilation measures are adequate, while assisting staff to monitor more efficient ventilation alongside thermal comfort.

The monitors will be used alongside current enhanced ventilation measures, which include keeping external classroom windows open and using mechanical ventilation systems.

CO_2 monitors will be placed in areas which are densely occupied for one hour or more. In the school, this includes, but is not limited to:

- Teaching spaces – including lecture classrooms and practical teaching spaces.
- Indoor play spaces.
- Staff rooms.
- Large offices with multiple occupants.
- Meeting rooms.
- Group or breakout rooms.

CO_2 monitors will not be used in areas that are unlikely to provide reliable readings. These areas include the following:

- Large, open internal spaces.
- Spaces with high ceilings such as sports halls.
- Spaces that are densely occupied for shorter periods of time, such as corridors or lobbies.
- Areas with low occupancy density, including kitchens and toilets, or offices with only one or two occupants.

Placement

When deciding where to place the CO_2 monitors, the school will prioritise spaces that constantly feel stuffy, have an unpleasant smell and will aim to have one monitor per every two classrooms. Prioritising monitors for these spaces will help the school effectively take action and improve air quality.

CO_2 monitors will be placed:

- At head height when individuals are seated.
- Away from ventilation outlets, e.g. grilles or windows.
- At least 0.5 metres away from occupants – placing the monitors closer than this could result in inaccurate readings.

Rotation

Monitors will be rotated around the building to identify the ventilation needs across the whole school. Rooms will be monitored for one full day before the monitors are moved to another location.

The school will ensure that poorly ventilated rooms are prioritised initially, and once improved measurements are recorded, the monitors will be moved to the rooms that are used the most or have the highest occupation density. When placed in a new room, staff will be aware that the monitor may need to refresh a few times before settling on a new reading.

If the monitor readings show that rooms are consistently well ventilated, these rooms will be removed from the rota for monitoring CO_2 levels.

Staff will be encouraged to check the measure shown on screen mid-way through, and at the end of, classes or ask someone in the class to do so. Regular readings will be taken for monitors placed in areas such as staff rooms and offices.

Staff will be made aware that if the monitor records a consistent value under 800ppm (parts per million), it does not require any action and implies that the space is particularly well ventilated. A consistent value of over 800ppm will be seen as an early indicator to improve ventilation in areas where there is continuous talking or singing or high levels of physical activity.

A consistent value of 1500ppm in an occupied space will be seen as an indicator of poor ventilation. This will also be indicated by a red light on the CO_2 monitor. The school will take action to improve ventilation where CO_2 readings are consistently higher than 1500ppm.

6. Improving natural ventilation

The principal will assess whether the school's ventilation is functioning well and whether the systems put in place to monitor, assess and improve ventilation are fit for purpose.

Where natural ventilation needs to be improved, practical steps will be taken depending on what the specific issue is. These will ensure that:

- Airbricks are clear from obstruction.
- Windows are able to be safely opened.
- Ventilation grids are kept clean, so that the air supply is not obstructed.
- Windows and internal and external doors are where possible be kept at least slightly open.
- Uniform and dress codes are relaxed in colder weather to allow staff and pupils to dress more comfortably. The school will, where necessary, have the heating turned up higher and for longer, starting earlier in the morning, to keep the temperature comfortable throughout the working day.
- Rooms are cleaned regularly.
- A maximum capacity is introduced for smaller rooms to ensure greater dilution – this may mean reducing numbers of pupils in smaller classrooms.
- Some poorly ventilated areas of the premises are restricted to single occupancy, very short durations, or put out of use until ventilation is improved.
- Pupils and staff members are encouraged to flush toilets with the lid down to avoid a 'faecal plume' of particles spreading through the surrounding area.

- Classrooms and other areas of the school are ventilated properly between use, including at breaks and at lunchtime.

If an area is identified as needing improvement, the school will decide if it's safe for individuals to use that area before any changes are made.

7. Improving mechanical ventilation

Mechanical systems provide adequate ventilation if they are set to maximise fresh air and minimise recirculation.

- Where mechanical ventilation needs to be improved, the school will take practical steps, depending on the specific issue, including the following: Ventilation will start ahead of the school day and continue after classes have finished when cleaners and other maintenance staff are working in those rooms.
- Air handling units will be set to maximise outdoor air over recirculated air, and any automatic CO_2 sensors will be switched off or set to 400ppm.
- Fan convector heaters will be used provided the area is well ventilated, but will not be used in poorly ventilated areas.
- Where CO_2 readings consistently exceed safe levels, the room will be temporarily evacuated pending measures being put in place to bring the CO_2 reading down to acceptable levels.

8. Air cleaning and filtration units

The school will use local air cleaning and filtration units to reduce airborne transmission of aerosols where it is not possible to maintain adequate ventilation. These units will not be used as a substitute for ventilation, areas identified as poorly ventilated for improvement will be prioritised in other ways before using an air cleaning device.

Any unit used within the school will be appropriate for the size of the area it's used in to ensure it works in the way it's intended to.