

Self-help Self-responsibility Equity Equality Democracy Solidarity

Thameside Primary School

School Health and Safety Policy

First approved by Trust Board: September 2017 Review Frequency: Annual

Date of last review: June 2023 Date of next review: June 2024

Version Control

Author	Date Created	Version	Notes
oneSource	2017	1.0	Approved by Trust Board
oneSource/T. Polston	December 2019	2.0	
T. Polston	June 2020	2.0	
J.Clark/T.Polston/L. Guy	June 2021	3.0	
J.Clark/T. Polston	June 2022	4.0	
D.Richardson/T.Polston	June 2023	5.0	Amendments in reference to competent advice and to frequency of refresher training. Maintenance matrix removed, signpost to Premises Management Policy added.

Osborne Co-operative Academy Trust

Osborne Co-operative Academy Trust is a multi-academy trust (MAT) incorporated around the principles and values of the international co-operative movement. These are Equality, Equity, Democracy, Self-help, Self-Responsibility and Solidarity, along with the ethical values of openness, honesty, social responsibility and caring for others. These values and principles underpin all our actions.

Status of this document

This Policy details the local arrangements for managing health and safety at Thameside Primary School. It is a subordinate Policy to the Osborne Co-operative Academy Trust Health and Safety Policy, and should therefore, be read in conjunction with this and the Trust's Safety Management System.

Statement of intent

Thameside Primary School is committed to ensuring high standards of health and safety in all its activities. It aims to not just comply with the minimum health and safety legislative requirements but, the spirit of the law as well. The School values its employees and will endeavour to ensure that their health, safety and welfare, and those of any visitors to the site (including pupils), is protected so far as is reasonably practicable. It recognises the economic and social benefits which are derived from the implementation of an effective health and safety management system. In order to derive these benefits the School's Governing Body and Senior Management Team commit to providing the necessary leadership and resources to implement, maintain and continuously improve the School's safety management system.

Moham

Signed Chair of Governors



Signed Headteacher/Head of School

To assist the effective implementation and continual improvement of the School's Safety Management System (SMS) the Local Governing Body sets SMS objectives each year. The current SMS objectives are:

(recommend minimum of 3, maximum of 5)

1. All contractors (including sub-contractors) visitors and suppliers of goods and services actively comply with relevant health and safety procedures, so far as can be secured by the school.

2.Contractor checklist template to be followed on all occasion with recommended contractors from the Trust engaged for works in the first instance.

3.Policies are reviewed annually by the Governing board. Policies are uploaded to Every for all staff to read and will be published on the school website.

4.All school staff are aware of their own responsibilities and actively support the school in implementing this policy. 5.The school will refer to specialist professional advice and support on health and safety and welfare, this includes the health and safety manual and e learning

Safety Management System

The School's Safety Management System is based on the HSE's model in HSG 65 "Successful Health and Safety Management".



Organisation

Governing Body

The Governing Body is responsible for ensuring that:

- It considers the health and safety implications of its decisions;
- Adequate resources are allocated to health and safety;
- Health & Safety Competence & Training Matrix for all staff and governors is monitored and reported to the Local Governing Body annually.
- Overall objectives for the School's Safety Management System are set and reviewed;
- Health and safety standards are maintained by monitoring the School's performance on a termly basis;
- At least one health and safety governor is nominated;
- This Policy is kept up to date by reviewing it annually.

Health and safety Governors

Health and safety Governors will:

- Participate in termly workplace inspections of the establishment;
- Monitor the School's health and safety performance (including against its SMS action plan) on behalf of the Governing Body (see the arrangements section for further details on monitoring requirements);
- Health & Safety Competence & Training Matrix for all staff and governors is monitored and reported to the Local Governing Body annually;
- Present a report to the Governing body each term detailing the findings of their activities.

All Employees

All employees have a legal duty to take care of their own health and safety and the safety of others affected by their acts and omissions, and to co-operate with the School to enable it to carry out its responsibilities. They must not interfere or misuse anything provided to ensure people's health and safety.

They also have a responsibility to report hazards and unsafe practices they become aware of, using the School's hazard reporting system. The employee should take all reasonable steps to make the situation safe (without putting themselves at risk) until it can be dealt with.

It is the responsibility of all employees to comply with the School's Health and Safety Policy and associated arrangements, and to co-operate with the School on its implementation. All employees must read the Health & Safety Policy on EVERY and mark as read.

It is the responsibility of all employees to comply with the School's Health & Safety Policy and associated arrangements, and to co-operate with the School on its implementation.

Employees must ensure that they are fully aware of their own health and safety responsibilities, these will be detailed in this document and in local/departmental procedures.

Employees must report practice, equipment or physical conditions that may be hazardous to their line manager or an appropriate member of staff. They must ensure they follow the accident reporting procedure, including reporting near misses.

Employees have access to health and safety resources through the engagement of a competent advice company with extensive resources and various methods of support.

Employees should be aware of who the Health and Safety Co-ordinator is in their School and who the Trustee responsible for Health & Safety is in the Trust. Currently, this is the Chair of Trust.

Employees are reminded that failure to comply with health and safety requirements could lead to disciplinary action.

Note for female staff: The School has duties to assess and control the risks to pregnant workers and nursing mothers. In order to be able to fulfil this duty employees need to inform their line manager about their pregnancy at the earliest opportunity. The School recognises that some prospective parents may not wish for information on their pregnancy to become public. The School will endeavour to fulfil these wishes but will always put the interests of the health of the employee and their unborn child above preventing disclosure.

Headteacher

The **Headteacher** is responsible for ensuring that:

- The health and safety decisions of the Board of Trustees are complied with;
- Promoting a culture where health & safety is a high priority and is considered in all aspects of the School's business;
- Systems are established and maintained within the School to ensure that health and safety is effectively managed (including where necessary the introduction of health surveillance programmes);
- A Health and Safety Co-ordinator has been appointed;
- Sufficient resources are allocated to enable health and safety to be successfully managed;
- The Osborne Co-operative Academy Trust health and safety policy and this policy are brought to the attention of all staff and they are aware of their responsibilities under them;
- A copy of the School's health and safety policy is kept in the office and staff room of the School for staff to access. It is also available under the Documents and Policies module of the EVERY system;
- Health and safety information is communicated to relevant staff;
- Accidents are recorded, reported and investigated using the established procedures;

- There are adequate arrangements in place to enable the School's employees to be consulted on matters affecting their health and safety. Where trade union safety representatives have been appointed, that suitable arrangements are made to enable them to be able to undertake their duties;
- Ensuring all contractor checks are completed prior to works commencing on the School site and that all works are monitored to ensure they are carried out safely;
- Ensuring that staff overseeing works on the School site have a clear understanding of their role and responsibilities and that communication channels are discussed, and staff are aware of the lines of communication to follow should an issue arise;
- Informing the central Trust facilities team of any large building projects they wish to undertake involving refurbishment or demolition;
- Assessments for all risks to health and safety are carried out and the significant findings recorded, with appropriate preventative measures being taken. In particular they will ensure that adequate arrangements have been made to manage potential emergency situations;
- Through induction, new employees receive appropriate health, safety and welfare information, instructions and training, including details of the Health, Safety and Welfare Policy, fire and other safety procedures;
- As and when needed, all employees receive appropriate health, safety and welfare information, instructions and training, including details of the health and safety policy, fire and other safety procedures;
- The School's health and safety performance is monitored (see arrangements section for further details);
- Termly health and safety inspections of the School are carried out. In order to demonstrate senior management commitment to health and safety they will participate in at least one inspection per year;
- Termly monitoring, including evidence checks, on health & safety documents such as contractor checks and competency matrix;
- Implementing the recommendations arising from health and safety audits of the School;
- Producing action plans to assist with the implementation of the policy and recommendations arising from audits, inspections and investigations;
- Monitoring and reviewing the health and safety performance of the School on a regular basis;
- Producing an annual report for the Board of Trustees on the School's health and safety performance in the agreed format

Senior Management Team

The Senior Management Team manages the day-to-day operation of the School. It is therefore responsible for ensuring there is a positive health and safety culture within the School. It is also responsible for establishing and maintaining the School's safety management system.

Members of the Team are responsible for deputising for the Headteacher/Head of School in their absence.

Key responsibilities of all managers and supervisors

All line managers and supervisors (i.e., anybody who has responsibility, including overseeing or directing other employees) are responsible for ensuring this Policy, and the arrangements made under it, are implemented in their areas of activity. As a general rule the direct responsibility of managers for health and safety is determined by the extent to which they have the authority to take executive action. Therefore, if they have the authority to make a general decision about some aspect of their work then they are responsible for the health and safety implications of that decision.

Key general management responsibilities include:

- (a) Promoting and developing a positive attitude towards health, safety and welfare throughout the School;
- (b) Ensuring that they are and remain competent to undertake their role;
- (c) Ensuring that work activities under their control are carried out, so far as is reasonably practicable, safely and without risk to health, and that adequate arrangements are made for welfare;
- (d) Ensuring risks are assessed, the significant findings recorded, safe systems of work developed and communicated to employees, and appropriate protective and preventive measures implemented;

- (e) Ensuring all accidents, near misses and acts of violence and aggressions are investigated and recorded using the School's established systems;
- (f) Monitoring the implementation of this policy and health, safety and welfare arrangements in their area of work to ensure continuous improvement;
- (g) Ensuring employees under their control are adequately trained, informed, instructed and supervised;
- (h) Making suitable arrangements for consultation with employees and employee safety representatives;
- (i) Ensuring that only contractors who have been assessed for their health and safety competence are appointed to carry out work on the School's behalf, and that co-ordination and co-operation with contractors takes place in order that risks to School employees, pupils, contractor's employees and others are minimised;
- (j) Reporting health and safety issues which they cannot resolve to the School's Health and safety Co-ordinator.

It is important that managers and supervisors understand the extent of their responsibilities, and that, the higher up the line management structure they are, the greater their responsibility will be.

Some managers within the School have additional responsibilities to the general duties and these are described below. Duties relating to the inspection and maintenance of plant & equipment (either directly or contract management) are contained in the premises management policy.

Health and Safety Co-ordinator

The main purpose of this role is to champion and monitor the implementation of the School's health and safety policy on behalf of the Headteacher. They are therefore responsible for:

- a) Establishing central record keeping systems for the School for key documents such as risk assessments, safe systems of work and emergency procedures;
- b) Preparing health and safety monitoring reports for the School's Governing Body on behalf of the Headteacher;
- c) Monitoring health & safety documents including the competency matrix, hazard register and risk assessments ensuring these are kept up to date;
- d) Reporting deficiencies, failures, or lack of co-operation with the School's safety management system to the Headteacher where they are unable to achieve resolution themselves;
- e) Liaising with the Schools' health and safety team. Including the adoption and distribution of corporate policy and guidance within the School;
- f) Signposting staff to the resources available e.g. health & safety manual and e-learning.

Site Manager

Is responsible for ensuring the health and safety of the site. In particular they are responsible for:

- Following Trust procedures for premises management;
- Ensuring that any work that has a health & safety implication is prioritised;
- Reporting any concerns regarding unresolved hazards in the School, to School leaders;
- Ensuring all work under their control is undertaken in a safe manner;
- Carrying out regular checks of the grounds and building, documenting on EVERY or adding to the School's action plan where actions are required;
- Ensuring all contractors sign in on site and are managed and monitored effectively for the duration of the works;
- Ensuring that all fire exits are clear from obstruction and unlocked prior to the building being occupied;
- Undertaking the weekly test of the fire alarm system including magnetic door release mechanisms;
- Undertaking the monthly test of the emergency lighting system;
- Checking the EVERY system regularly throughout the day, rectifying those issues within their authority and notifying the Health and Safety Co-ordinator of any unresolved issues;
- Undertaking termly inspections of the communal areas of the School to identify hazards;
- Liaising with hirers to ensure that they are aware of evacuation procedures and routes, hazard and accident reporting procedures;
- Liaising with contractors to ensure that they are aware of relevant School procedures, including but not limited to fire, hazard and accident reporting and asbestos control;

• Co-operating with health and safety arrangements during larger building projects.

Year Leads

Year Leads are responsible for implementing the Health and Safety Policy within their Department.

In particular, Year leads will need to ensure that:

- A copy of risk assessments relevant to the Department is maintained and reviewed;
- Equipment within the Department is maintained in a safe condition. To achieve this the Year Leads will ensure that the equipment is subject to regular inspections by competent staff and an annual maintenance programme;
- Termly inspections are undertaken to identify hazards and unsafe acts and omissions within the Department, and that an action plan is produced to ensure that any issues identified are resolved;
- All employees receive appropriate health and safety information, instruction and training, including Departmental safety procedures;
- Records are maintained of the Department's health and safety activities

Teachers

The health, safety and welfare of students in classrooms, laboratories and workshops is the responsibility of the class teacher. These rules also apply to student teachers who must be made aware of their responsibilities by a professional tutor.

A class teacher is expected to:

- Know the emergency procedures in respect of fire and first-aid and the special health and safety measures to be adopted in their own teaching areas and to ensure that they are applied;
- Be aware of, and follow, health and safety guidance;
- Exercise effective supervision of students and ensure that they know of the general emergency procedures in respect of fire and first-aid and the special safety measures of the teaching area;
- Give clear instructions and warnings as often as necessary (notices, posters, hand-outs are not enough);
- Ensure that students' coats, bags, cases etc, are safely stowed away;
- Integrate all relevant aspects of health, safety and welfare into the teaching process and if necessary, give special lessons on health, safety and welfare;
- Follow safe working procedures personally;
- Ensure protective clothing, guards, special safe working procedures etc. are used when necessary;

Make recommendations on health, safety and welfare matters to the head of subject or team leader.

Technicians

Technicians are responsible for:

- Undertaking termly inspections and maintenance of hand-tools, apparatus, personal protective equipment and testing energy supply outlets/taps/sockets in the teaching and preparation areas in accordance with departmental checklists;
- Ensuring that hazardous substances are stored appropriately;
- Ensuring preparation and practical teaching areas are kept tidy.

Educational Visits Co-ordinator

The EVC is responsible for ensuring that all trips and visits are approved in accordance with the Trust's Policy and that the visit leader is competent and has completed a suitable and sufficient risk assessment.

Mid-day Assistants

Mid-day assistants must ensure that they know the role which they must play in the event of an emergency evacuation and the procedure for first aid during the lunch period.

Competent Advice

The Osborne Co-operative Academy Trust recognises the need for external competent advice and engage the services of a suitable provider who support our staff in all aspects of Health & Safety.

Arrangements

This Section details the arrangements which the School has in place for managing health and safety. In most cases it will signpost to other documents/procedures. The School utilises the resources of an external competent advisor. Employees have access to extensive health and safety resources and various methods of support.

All school policies can be found on the Every system under documents.

Document Control

The School has implemented a system of document control to ensure that the most up to date versions of documents are accessed by staff. The School uses a system of version number to identify documents.

Risk assessments

The School has assessed the risks relating to its operations using a hazard register to ensure that all activities have been managed appropriately to the level of risk they pose. Where significant risks have been identified, these and the necessary control measures, have been recorded on individual risk assessments. The Health and Safety Coordinator maintains a central record of all risk assessments. Copies of appropriate risk assessments are held by all departments/subject leads.

Line managers are responsible for ensuring that their staff are aware of and understand the findings of the risk assessments relating to their work.

Before new activities are undertaken or when an existing activity is changed, the manager in overall control of the activity/subject lead will ensure that a new or revised risk assessment is produced. Guidance on completing risk assessments is contained in the Management Systems section of the Health and Safety Manual and risk assessment form templates are available in the Supporting Documents Section.

Risk assessments will be reviewed at least annually or where there is a change in personnel, activity or equipment.

Fire

The School has undertaken a fire risk assessment, the findings of which have resulted in the development of systems to mitigate and control the risk. Notices containing the actions required in the event of a fire are sited around the School. The Fire Register which contains the assessment and details on the management of the various control measures is located in the Operation's Manager's office.

Termly fire drills must be carried out and findings recorded in the logbook and on EVERY. Call points must be tested over a thirteen week cycle; a zonal plan must be in place to ensure all areas are tested during this period. This must be recorded in the logbook and on EVERY. Confirmation should be obtained from the monitoring station that the signal was received.

Lone Working

The School will ensure there are adequate procedures in place for staff who are lone working and that line managers have carried out a risk assessment that considers the tasks being undertaken.

Hazard and unsafe acts and omissions reporting

Hazards are things with the potential to cause harm, such as torn carpets, damaged electrical sockets etc. Unsafe acts and omissions are when people undertake tasks in an unsafe manner regardless of the reasons for their behaviour. All hazards and unsafe acts and omissions must be reported. Hazards must be reported using the EVERY system.

Security

Invacuation or shelter -in -place is similar to lockdown and may be appropriate for other incidents where remaining inside school premises may be the safest place for pupils, staff and visitors to take refuge with doors and windows locked and blinds closed. Pupils would be moved away from windows and doors for prime safety. Such incidents could include events such as a chemical spill, criminal activity, or civil unrest.

The signal for lockdown/invacuation is communicated via word of mouth using a radio system. If pupils are outside then the notification of a lockdown is announced, staff should consider taking pupils to the nearest possible building that can be secured. Pupils could be asked to hide or disperse if this will aid their safety.

During a lockdown/invacuation, staff may find it difficult to obtain a clear view of the situation. Communication will be maintained between staff using the radio system, mobile phone.

Parents/carers will not be allowed to collect their pupils during an invacuation/lockdown procedure.

Accident and near miss reporting

A near-miss is an incident which could have resulted in injury or loss, if the circumstances were different (for example if a School keeper was working on a tower scaffold and dropped a tool, but luckily it did not actually cause any injury or damage).

All accidents and near misses must be reported. Minor injuries to pupils are recorded on Bromcom. All other accidents are to be reported to the Operation's Manager who will record the incident using the accident reporting system. The competent advisor will report to the HSE, on behalf of the School, any accidents which are RIDDOR reportable.

Communication

The School recognises the importance of communication to staff, visitors, pupils, parents/carers, volunteers, etc. and shares information on health and safety to its employees using the following methods:

- As part of the induction process;
- Team meetings/Departmental/Staff meetings;
- Staff bulletins/briefings/newsletter;
- Staff notice boards
- 1:1s

Staff should follow the Trust Communication Policy for guidance.

The Site Manager will communicate with all contractors on site as part of the work planning.

Consultation on health and safety matters

The School consults its staff regarding issues affecting their health and safety through staff meetings/team or department meetings/School Safety Committee. Staff can also raise concerns via the Health and Safety Coordinator.

First aid

The School has assessed its needs in relation to first aid to ensure there is adequate provision at all times the School is occupied.

A number of staff are trained as First Aiders, a list of First Aiders is available in the Main Office and Staff Room and by each First Aid Box.

First Aid medical boxes are located around the school for quick access.

A defibrillator is available in the Main Office.

Contractor management

The School will not use contractors unless they have been properly vetted (including health and safety). Contractors are required to sign in at Reception using the Inventry system. All contractors will be shown the asbestos register entries for the area they will be working in and be required to sign a declaration that they are aware of the asbestos' location and will not disturb it. The Site Manager is responsible to monitoring contractors on the School site. A contractor checklist must be completed and the School must only commission competent contractors.

Employee competence

The School will ensure that employees are competent to perform their duties from a health and safety perspective. The School utilises competency matrices which list the knowledge, training, experience and attitudes necessary for any given role. Staff are developed so that they can meet these criteria. As a minimum, all staff must complete the following health & safety training:

- An Introduction to Manual Handling
- DSE and Workstation Safety
- Fire Safety and Evacuation
- Hand Hygiene
- Handling Workplace Related Stress
- Health & Safety at Work Introduction to Health & Safety
- Slips, Trips and Falls
- Staying Safe with DSE Mobile Working
- Staying Safe with Electricity

Refresher training must be completed every three years.

Additional training requirements will be identified through the School's competency matrix; staff should highlight any additional training needs in relation to their role to their line manager.

Key roles in the School have to attend health and safety management training organised by the Trust's Health and Safety Co-ordinator.

Stress

The School recognises the detrimental effects that stress can cause. It has therefore implemented a strategy to control the work-related element as far as is reasonably practicable. Any employee who believes that they are suffering from stress should either speak to their line manager or the Headteacher/Head of School. Employees may also contact Educational Support Partnership who provide a confidential advisory/counselling service to the School's employees on 08000 562561.

Occupational Health and Health Surveillance

Adhering to the Sickness Management Procedure, the Trust purchases the services of an Occupational Health Service provider for all staff. Incidences of work-related ill health will be referred to, and monitored by, the Occupational Health service provider. Guidance will then be provided to the School with regards on-going support required for the staff member.

Health Surveillance will be identified through department risk assessments and where required, referral will be made through the Occupational Health Service. See Health Surveillance policy for further detail.

Personal Protective Equipment (PPE)

The need for PPE as a control measure is assessed by risk assessment. Where it is assessed that PPE is required, PPE is appropriately selected and provided. Staff will be asked to sign for receipt of PPE and a record of PPE issued will be kept on file. Employees are responsible for ensuring that they use PPE where it is provided. Details about the PPE and what is provided will be included within the faculty/department individual risk assessments

Standard Procedures

The Trust has developed procedures which are available to Headteachers, Site Managers and Health & Safety Coordinators on EVERY; Schools should develop further local procedures and upload to EVERY for staff to access.

Eye and Eyesight Testing

All employees who are identified as "Users" (following the completion of the Display Screen Equipment (DSE) Users Questionnaire - see appendix A) are entitled under the Display Screen Equipment Regulations to have their eyes and eyesight tested at regular intervals, at the employer's expense.

Where the test shows the "User" to have an eye defect at the VDU vision distance, the Trust will reimburse £19.95 towards the cost of the eye test and up to £55.00 for prescription lenses (glasses or contact). Any balance must be met by the employee.

Employees are entitled to an eye and eyesight test when they first become "Users", at regular intervals thereafter (usually determined by the optometrist) and whenever they experience visual difficulties which may be associated with VDU work.

Employees who frequently use laptops as part of their work should inform the optician since the typical viewing distance may be shorter than for desktop computers.

An Eye Test Reimbursement form is available from the School's Operation's Manager and must be completed in full by the employee and authorised by their Headteacher.

The Optician will indicate on the form whether further action is required, and if so the type of prescription required, by ticking the appropriate box on the Eye Test Reimbursement form. This will determine whether the employee is entitled to a further eye care subsidy (currently £55.00) towards the purchase of glasses. If the Optician does not indicate that spectacles are required for VDU use, the employee will not be entitled to a contribution from the employer.

The **signed and stamped** Reimbursement form must be returned to the Operation's Manager along with a copy of the prescription and receipt. A copy of the form will be held on the Employees personal file.

Monitoring of health and safety performance

A termly report is provided to the Governing body that includes the following monitoring data:

- Number of accidents;
- Number of near-miss reports;
- Number of incidences of work-related ill health;
- Number of hazards reported/rectified;
- Number of fire drills planned/unplanned
- Outcomes from fire drills.

Each year the following are also reported:

- Number of risk assessments identified as being required;
- Number of risk assessments completed;
- Number of risk assessments reviewed;
- Percentage of risk assessments which are deemed current (completed or reviewed in previous 12 months);
- Percentage of required maintenance activities and inspections completed;
- Training against needs analysis.

Osborne Co-operative Academy Trust Eye Test Reimbursement Application Form

- 1. In line with the Health and Safety Policy, an employee may be reimbursed up to £19.95 towards the cost of an eye test and possible fees charged by the optician for completion of this form, and up to £55.00 for prescription lenses (glasses or contacts). Any balance due to the optician must be met by the employee.
- An employee and their line manager must complete a Display Screen Equipment (DSE) Users Questionnaire (see appendix A) and subsequently section 1 of the form below <u>before</u> undertaking an eye test. This must then be signed by the Headteacher/Head of School.
- 3. This form should be taken to an optician of the employee's choosing and the optician must complete **section 2** after the examination.
- 4. A copy of the prescription together with relevant receipts must be attached to the expense submission for approval by the Headteacher/Head of School

Section 1 – Employee / Manager

Employee Name	
(Person having eye	
test)	
Date of Last Test	
Line Manager Name	
and Signature	
Headteacher/Head of	
School Signature	
Date	

Section 2 – Optician – CERTIFICATE OF RECOMMENDATION

I confirm that I have examined the above named patient's eyes and recommend the following (**Tick one only from A to F**)

Findings							
Spectacles are not required / No change in current prescription							
Spectacles are required for general use							
Spectacles are required for general use, incorporating a special prescription for VDU use							
Spectacles are required solely for VDU use							
Spectacles are needed for safety purposes							
Spectacles are required for driving purposes							
Type of spectacles needed	Single Vision	Bifocals	Multif	ocals			
Additional Comments							
Opticians Signature		Date					
Opticians Name and Address (Address stamp or provide a compliment slip)							

Display Screen Equipment (DSE) Users Questionnaire

Appendix A

