



Time Truck Risk Assessment 2005-06.

The risk assessment given below is taken from the full Time Truck Risk Assessment. Schools are welcome to include it in their own risk assessment for our visit. We would welcome feedback from schools on improving it.

School visits.

Time table for school visits is given in appendix 3 (not included in schools version). All schools receive a copy of the risk assessment and a briefing as to Time Truck's requirements of the school in terms of health and safety; if these are not fulfilled to the visit co-ordinators satisfaction, the visit will be cancelled. Volunteers will wear time truck tops and name badges so that they are identifiable at all times.

Hazard	Those at risk	Risk	Precautions / Control Measures / Safety Points
Driving of Truck and minibus / cars.	Volunteers.	Serious injury to driver / passengers through a collision, potentially caused by traffic or bad weather.	Only Department qualified drivers (see appendix 4) to drive either the truck or vehicles in which undergraduate volunteers are passengers. If weather conditions judged too severe to safely drive the visits will be cancelled. First aid kit kept in both vehicles in case of accidents (borrowed from Amanda Chapman).
	Volunteers, staff and children of schools.	Incorrect /unsafe parking of vehicle could result in serious injury to driver or passengers. Serious road accident or other incident relating to poor maintenance of vehicles.	Only Department qualified drivers to drive either vehicle. Park on safe, level surfaces at schools. Children to be kept clear while the truck / other vehicles are manoeuvring. Truck shall be hired from a reputable company and checked for signs of poor maintenance before driving. CUSU MPVs or departmental cars used to transport volunteers.
Related to the exterior of the truck.	Volunteers and children / staff.	Minor injuries from sharp edges and corners.	Tape any edges or corners which cause concern.



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		<p>Risk of head or other injuries from contact with opening / closing doors, including the rear tail lift.</p> <p>Risk of tripping / slipping on uneven / wet and slippery surface at the truck exterior.</p>	<p>Caution taken when opening and closing doors. Front doors locked and tail lift controls covered when children are present.</p> <p>Park somewhere level and take care in wet weather. School responsible for the provision of an adequate safe parking area.</p>
<p>Related to the interior of the Truck.</p>	<p>Volunteers, children and staff of schools.</p>	<p>Movement of exhibits and tables to unsafe positions during transit where they may subsequently pose a trip hazard.</p> <p>Minor injuries from slipping / tripping on the floor of the truck.</p> <p>Falls / trips upon entering / exiting the truck causing potentially major injuries.</p> <p>Minor injuries from the sharp edges on exhibits.</p>	<p>Tables are fastened to the floor of the truck. Exhibits are stored under tables and fastened during transit. Volunteers to arrange exhibits and where possible secure them to the tables / floor prior to activities commencing at the schools.</p> <p>Truck floor is covered by non-slip plywood flooring which is securely taped down. Additional non-slip mats provided in wet weather.</p> <p>Non – slip steps to be used for entry /exit to the truck (check condition prior to first school visit). Adult's to supervise the children upon ascent / descent. Children shall only be allowed to enter / exit the truck one at a time. Wheelchair user access is via the tail lift; wheelchair to be locked and braked whilst the lift is in motion. Children to be kept clear whilst the lift is in motion. Only the truck driver is to operate the tail lift.</p> <p>All sharp edges to be filed, smoothed or taped.</p>



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			Back injuries related to lifting exhibits (volunteers only at risk).	All volunteers briefed on manual handling (see Appendix 1). Lifting of heavy and awkward objects either avoided or carried out with assistance.
Rock and fossil handling activities.	Volunteers, children and staff of schools.		Cuts or abrasions from sharp or rough edges of rocks / fossils / mineral specimens. Crush injury / bruising resulting from a handled specimen being dropped on a hand / foot. Ingestion of sand or irritation to skin from sand.	Volunteers trained in safe handling practise and how to deliver this to children. Volunteers control use of larger / heavier objects, particularly with younger children. Volunteers trained in safe handling practise and how to deliver this to children. Only use childrens' play sand bought from a reputable retailer (e.g. Early Learning Centre).
'How to make a fossil' and landscape models.	Volunteers, children and staff of schools.			
Time line and dinosaur footprint activities.	Volunteers, children and staff of schools.		Slipping / tripping over objects laid out on the floor.	Tape down objects where possible. Only work in large open space (e.g. playground) where children can walk round plastic sheets of timeline / footprints. Volunteers to supervise children closely to prevent accidents.
Volcano.	Volunteers, children and staff of schools.		Eruption mixture (vinegar, bicarbonate of soda, food colouring and washing up liquid) may irritate and stain skin.	Only volunteers to prepare the volcano for eruption and to clean it up. Non-latex disposable gloves provided for volunteers should they wish to use them. Hand washing facilities and a barrier cream / moisturiser (e.g. E45) also to be provided for volunteers.



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<p>Generic safety points.</p>	<p>Volunteers, children and staff of schools.</p>	<p>Provision of first aid in the case of any injury.</p>	<p>While at the schools the provision of first aid to the children is the sole responsibility of the schools. First aid provision for the volunteers is the responsibility of Time Truck. First aid kits are carried in the truck and car / minibus in case of injury whilst in transit.</p> <p>While at the schools the appropriate safety procedures are the responsibility of the schools. Volunteers should ensure that they have the appropriate information regarding the location of fire alarms and evacuation points, however the safety of the children is the responsibility of the staff accompanying each group.</p> <p>Flammability of all exhibits is to be minimised.</p> <p>No naked flames may be used inside the truck and smoking is not allowed inside or near the truck.</p> <p>The smoking policy of each school (generally one of no smoking on the property) is to be adhered to by all volunteers.</p> <p>Engine and lights are to be switched off whilst parked to reduce the risk of fire.</p> <p>Exits from the truck: through the side doors from the cab; through the rear door from the body.</p> <p>A fire extinguisher will be kept in the truck in case of fire.</p> <p>School visit co-ordinators, vehicle drivers and at least one passenger to each vehicle should be trained in how to correctly use fire extinguishers.</p>
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		<p>Provision of child safety.</p>	<p>Volunteers to be made aware of the guidelines for working safely with children (appendix 2). Each group, of maximum 12 children, must be accompanied by two adults from the schools. These adults are responsible for the childrens' behaviour and welfare. One adult must be present at all times with the group (i.e. one adult may accompany a child to the toilet / to a first aider / etc). Time Truck will always cancel a visit if this provision is not met.</p>
		<p>Photography.</p>	<p>Time Truck may wish to take photographs of their work at selected schools. These schools will be contacted in advance so that parental permission to take photographs of their children may be obtained. These photos are for use in promotional materials.</p>



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Appendix 1.

Source and use of the Guidelines

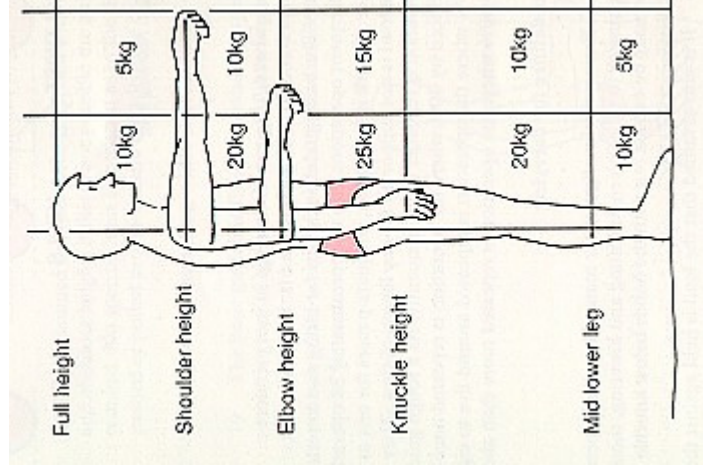
1. The guidelines adopted here are those drawn up by medical and ergonomics experts of the UK Health and Safety Executive (HSE) on the basis of a careful study of the published literature and their own extensive practical experience of assessing risks from manual handling.
2. The limits given in the guidelines will give reasonable protection up to 95% of all working male in the UK. In order to provide the same degree of protection to working female, the limits should be reduced by about one third. As the recommended limits are drawn up for people in the UK whose physical strength and character may be somewhat different from us, due care should be exercised when applying the figures and a further reduction in the limits may be needed.
3. Consult SEPO for any doubts pertaining to the assessment.

Guidelines for Lifting and Lowering

1. The limits in [Figure 1](#) below are weight limits for manual operations involving lifting and lowering at different "movement zones". They assume that the load is readily grasped with both hands and that the operation takes place in reasonable working conditions with the handler adopting a proper posture (such as straight back, bend knees etc.).



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Note:

Read the accompanying text before interpreting this diagram.

Further assessment is needed when the load to be handled is greater than 16 Kg.

Figure 1: Lifting and Lowering

Source: *Guidance on Manual Handling Operation Regulations - HSE*

2. The limits take into consideration the vertical and horizontal position of the hands as they move the load during the handling operation, as well as the height and reach of the individual handler. It will be apparent that the capability to lift or lower is reduced significantly, for example, when the load is held at arm's length or when the hands pass above shoulder height. If the hands enter more than one of the "movement zones" during the operation, the smallest weight limit should be used. The transition from one movement zone to another is not abrupt; an intermediate limit may be chosen where the hands are close to a boundary. Where lifting or lowering with the hands beyond the movement zones is unavoidable, a more detailed assessment should be made.
3. The risk of injury may be considered insignificant if the weight limits at the respective movement zones are not exceeded.



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Twisting

The limits for lifting and lowering should be reduced if the handler twists to the side during the operation. As a rough guide, the limits should be reduced by about 10% where the handler twists through 45 degrees and by about 20% where the handler twists through 90 degrees.

Frequent lifting and lowering

The limits for lifting and lowering are applicable for relatively infrequent operations - up to approximately 30 operations per hour - where the pace of work is not forced, adequate pauses for rest or recovery are possible and the load is not supported for any length of time. They should be reduced if the operation is repeated more frequently. As a rough guide the limits should be reduced by 30% where the operation is repeated once or twice per minute, by 50% where the operation is repeated around five to eight times per minute and by 80% where the operation is repeated more than about 12 times per minute.

Guidelines for Carrying

The limits for manual handling operations involving carrying are similar to those given for lifting and lowering, though carrying will not normally be carried out with the hands below knuckle height.

It is also assumed that the load is held against the body and is carried no further than about 10 meters without resting. If the load is carried over a longer distance without resting the limits may need to be reduced.

Where the load can be carried securely on the shoulder without first having to be lifted (as for example when unloading sacks from a lorry) a more detailed assessment may show that it is acceptable to exceed the limit.

Guidelines for Pushing and Pulling

1. For pushing and pulling loads, the limit for starting or stopping the load is a force of about 25kg. The limit for keeping the load in motion is a force of about 10kg.

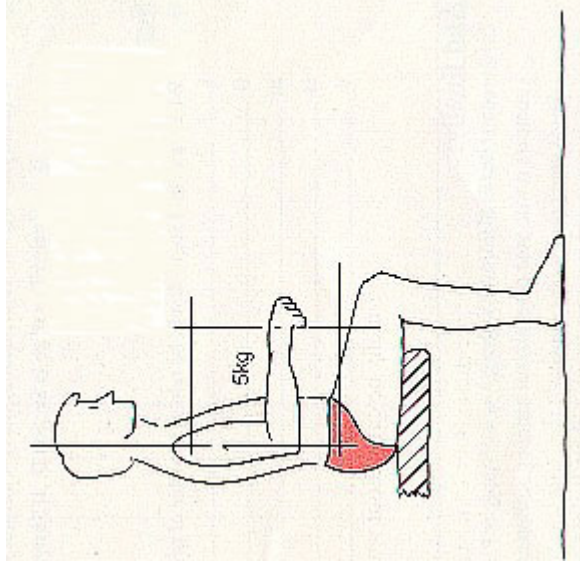


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2. It is assumed that the force is applied with the hands between knuckle and shoulder height. If this is not possible, the limits may need to be reduced. No specific limit is intended as to the distance over which the load is pushed or pulled provided that there are adequate opportunities for rest or recovery.

Guidelines for Handling While Seated

The limit for handling operations carried out while seated is given in [Figure 2](#) below. It applies only when the hands are within the movement zone indicated. If handling beyond the movement zone is unavoidable or, for example, there is significant twisting to the side, a more detailed assessment should be made.



Note: Read the accompanying text before interpreting this diagram.

Figure 2: Handling while seated

Source: Guidance on Manual Handling Operation Regulations - HSE

A copy of the HSE booklet – Getting to grips with manual handling – is in the Time Truck paperwork files.

Prepared by Michelle Pope, co-ordinator TT 2005-06.
Format and contents modified from Risk Assessments by Annette Shelford, Education Officer, Sedgwick Museum.



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Appendix 2.

Working Safely with Children:

As it is impractical to obtain CRB checks for volunteers on short notice the following measures are taken to ensure the safety of both the volunteers and children:

For school visits: each group of children must be accompanied by two adults from the school. These adults are responsible for discipline and behavior of the class. It is also the adult helpers' responsibility to be aware of and act on first aid and fire safety provision in the school for the children. Two adults are required so that there can always be one adult in the room and distressed children can be accompanied out of the room by the second adult. If this condition is not fulfilled Time Truck will always cancel a visit.

On open days: children should be accompanied by adults who are expected to take full responsibility for their behavior. Signs will be posted to this effect.

The following guidelines are offered to volunteers working with children in order to ensure the safety of the children and the volunteers:

Never touch a child of your own volition.

Never be alone with a child. Make sure no child works solo with one or more volunteers. In schools ensure that at least one adult from the school is in the room with groups of children at all times.

If photos are being taken of the children ensure that you have parental permission to photograph them. In schools the class teachers will be asked to contact parents for permission. On open days, ask accompanying adults for permission.

Additional information on working safely with children can be found at:

<http://www.nspcc.org.uk/html/home/home.htm>

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<http://www.cambridgesca.org.uk/>

Any volunteers who wish to have a CRB check done can contact SCA who will arrange one for free.



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Appendix 4.

DRIVING PROTOCOL FOR TRAVEL AT WORK

1. All journeys are restricted to *bona fide* University / Departmental business. These could include, but are not restricted to, travel between University buildings, research fieldwork, visits to other academic institutions, collection of items purchased for the department, transportation of Earth Sciences casualties to Addenbrooke's.
2. Persons wishing to drive departmental or hire vehicles on departmental business must be suitably qualified, and must deposit a copy of their driver's licence¹ with the departmental Safety Advisor Ms. A. Chapman (for the Bullard Labs this can be done via the Bullard Safety Officer Mr R. Cordiner), and must familiarise themselves with the relevant sections of the University Insurance Notice and Guidance, which can be found at <http://www.admin.cam.ac.uk/offices/insurance/>, especially sections 14, 15, and 16 of the Insurance Notice, and the Guidances affecting students.
3. For driving on field trips, or other journeys where any undergraduate students are carried as passengers, the driver must have satisfactorily completed a recognised² Advanced Driver Training course, and have experience³ of driving within the U.K. for at least 12 months.
4. All driving for the department is done on a purely voluntary basis. No-one will be required to drive if they are unwilling to do so.
5. For drivers of minibuses, the department has a number of "Section 19" minibus permits, which should be displayed in the front windscreen during each journey. This applies both to University-owned and to hired minibuses.
6. For driving on the Greece undergraduate field trip, all drivers must be at least 25 years of age and at least post-doctoral status or equivalent.
7. Where a casualty is being transported to the doctor's/hospital, the casualty should where necessary be accompanied by a University First Aider. If there is any doubt about the advisability of transporting a casualty, an ambulance must be called.
8. In the event of an accident involving a University vehicle, drivers must follow University procedure, a copy of which is kept in each vehicle.
9. All accidents occurring while on University business, whether in a University vehicle or another vehicle, must also be reported as soon as possible to the departmental Safety Advisor, and a University Incident Report completed.

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Notes:

- ¹ Provisional licences are not acceptable. Licences will be checked on an annual basis. If in the meantime, there are any changes to your licence, you must send in a copy showing the changes.
- ² The training course recognised by the Department of Earth Sciences is organised through the Safety Advisor, from whom further information is available. On satisfactory completion of the training course, a certificate will normally be awarded for four years. The certificate will become invalid if any new driving convictions (other than one speeding offence) are recorded on the driver's licence within the time period shown on the certificate, or if the driver is involved in any motor accident. N.B. Time-expired convictions are disregarded.
- ³ Merely holding a licence for the required time is not sufficient; drivers must have had actual road experience.

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