## Lesson one: Introduction

#### What are ramps?

A ramp is a sloping surface joining two different levels. It is used where one or more steps prevent a person from moving from one place to another.

Ramps help a person who cannot easily use steps to get in and out of buildings and move around. Ramps can also help a person using a wheelchair to access a large vehicle, such as a car, bus or train.

Ramps can be:

- **Portable:** Designed to be moved. They are not fixed in place.
- **Permanent:** Fixed in place.

The two kinds of portable ramp included in TAP are wide platform and twin track portable ramps.

Wide platform portable ramp	Twin track portable ramps
A single platform wide enough for a person who is using a wheelchair or a walking aid.	Two separate, narrow tracks for the wheels of four-wheel wheelchairs.

Some doorways have a threshold with a step on both sides. A ramp is needed on both sides of the threshold.

#### Ramp ratio

Ramp ratio describes how steep a ramp is. The ratio of a portable ramp should not be steeper than 1:8. A less steep ratio of 1:12 is recommended where possible. A less steep slope is easier for people to go up and safer for people to go down.

1:8 ratio	1:12 ratio
1:8 ratio	1cm

#### Step height and length

For safety, it is recommended to only use portable ramps on:

- Steps or vehicles up to 45cm in height
- Lengths up to 350cm.

A longer ramp is larger and heavier for a person to lift and move. If a ramp longer than 350cm is needed, consider a permanent ramp.

Always check there is a level space for the person to move and turn at the top and bottom of the ramp. A ramp in a doorway needs a level space in front of the door to allow a person to open it.

## Ground type

Use the portable ramp on smooth and even ground. Soft and uneven ground could be unstable and cause a person to lose balance.

Important features	Other features that can be helpful
<ul> <li>Strong, durable and light weight</li> <li>Raised edges</li> <li>Shaped and smooth ends</li> <li>Non-slip surface</li> <li>Foldable</li> <li>Weight limit written on ramp.</li> </ul>	<ul> <li>High contrast edges</li> <li>Handles</li> <li>Ramp weight written on ramp.</li> </ul>

### Who uses portable ramps?

Children, adults and older people may need a ramp if they:

- Use a wheelchair or a walking aid and need to go up and down steps
- Use a wheelchair and need to regularly get in and out of a vehicle.

A portable ramp can be provided to a person for their personal use. They can also be used in public buildings and transport to support access for the whole community. This is helpful when a permanent ramp is not available.

Sometimes there is not enough space for a portable ramp or a portable ramp is not suitable. Other options to consider include:

- Grab bars at a door entrance
- Permanent ramp.

# Lesson two: Select

### Environment

Screening the environment is the first step to decide if a portable ramp may be suitable.

First, check if the ramp is for:

- Personal or public use
- An entrance of inside a building.

If a portable ramp will be used in a doorway check:

- The person's mobility assistive product can fit through the doorway
- The width of the available ramp/s is not wider than the width of the doorway.
- If there is a threshold in the doorway.

Check the supporting surface to see if it will stay solid in all local weather conditions. If not, discuss if a different supporting surface is possible. If the ground is not level, discuss if it can be smoothed out. If the supporting surface cannot be changed consider a permanent ramp.

### Measure

Measure the total height of the steps where the ramp will be used. This will help decide if a portable ramp is suitable and how long the ramp needs to be.

Always discuss personal preference for steepness before making a final decision about ramp length. Ask the person to try the ramp to make sure it is suitable. If there is not enough space for any of the ramp ratios, explore other options for access.

# Selecting a portable ramp

Always select a portable ramp with the person. If selecting a ramp for a public building or public transport, consider the needs of people using the different mobility assistive products listed below.		Is the ramp suitable?	
		Twin track	Wide platform
	Walking aid	Х	$\checkmark$
Mobility and	Three-wheel wheelchair	Х	$\checkmark$
lifestyle	Four-wheel wheelchair	$\checkmark$	$\checkmark$
	Assistance	Х	$\checkmark$

It is important to consider the total weight on the ramp. This includes:

- The weight of the person using the ramp
- Weight of an assistant if needed
- Weight of their mobility product.

The total weight on the ramp should be less than the weight limit of the ramp.

# Lesson three: Fit

The second step in providing a portable ramp is to check that it fits in each place it will be used.

# Positioning

- 1. Place the top end of the ramp on the top step.
- 2. Place the bottom end on a smooth and flat surface.
- 3. Check the ramp is stable and does not move or slide.

Place twin track ramps straight next to each other (parallel) and the same distance apart as wheels of the person's wheelchair.

# Lesson four: Use

The third step in providing a portable ramp is to teach the person how to use it safely and take care of it.

If a person needs assistance to position or use a portable ramp, involve their caregiver or family member. If the ramp is for a public building or transport, discuss teaching more than one member of staff.

### How to use a portable ramp

	Walking aid	Wheelchair	Electric wheelchair
Person using mobility assistive product	<ul> <li>Stay in the centre of the ramp.</li> <li>Lift heel when stepping up</li> <li>Lift knee and put heel down first when stepping down.</li> </ul>	<ul> <li>Stay in the centre of the ramp.</li> <li>Lean forward when pushing up</li> <li>Lean back and let push rims slide slowly through hands when coming down</li> </ul>	<ul> <li>Stay in the centre of the ramp.</li> <li>Position hand at bottom of control stick and use slow speed on ramp</li> <li>Keep backrest in upright position when going up ramp</li> <li>Tilt seat and backrest backwards to keep seat level while moving down ramp</li> <li>The amount of tilt depends on the steepness of slope.</li> </ul>

	Walking aid	Wheelchair	Electric wheelchair
Assistant	<ul> <li>Walk behind and to the side.</li> </ul>	<ul> <li>Stand behind holding wheelchair push handles</li> <li>Lean slightly forward when going up the slope</li> <li>Lean slightly back and bend legs when going down slope.</li> </ul>	

### Looking after a portable ramp

Teach the person, their family and caregivers, how to look after the ramp.

- Check the portable ramp for any signs of damage
- Wash the ramp with water and soap
- Remove anything that covers the non slip surface, such as:
  - o Mud
  - o Dirt
  - o Snow
- Make sure it folds and unfolds easily
- Tighten any loose bolts or screws
- Clean and oil any moving parts
- Let the ramp dry before storing it.

### Lesson five: Follow up

It is important that people know to contact the service at any time if they have a problem with their portable ramp.

If the person is not using their portable ramp or has problems using it, find out why. The ramp may need repair or replacement, or the person may need further training in how to use it.

Check	Replace
<ul> <li>Folding mechanisms and hinges work smoothly: <ul> <li>Tighten any loose nuts and bolts</li> <li>Oil hinges</li> </ul> </li> <li>The ramp ends sit flat to the ground</li> <li>The non slip material is still in good working condition: <ul> <li>Repair or replace any worn out non slip material.</li> </ul> </li> </ul>	<ul> <li>The ramp is damaged and no longer safe:</li> <li>There are cracks or damage</li> <li>The ends of the ramp are bent or broken</li> <li>The raised sides of the ramp are bent or broken</li> <li>The surface becomes very slippery and can't be repaired.</li> </ul>