TOP CHALLENGE cards have been designed to enable children to develop personal, learning and thinking skills through four themes:

- **TRUST AND CO-OPERATION**
- **TEAMWORK**
- **NAVIGATION**
- **EXPLORING THE NATURAL WORLD**

Theme cards

TRUST AND CO-OPERATION

1 All aboard/Hoopla/Line up
2 Spell it out/Count me in/ Get in shape
3 Trusting me
4 Twin trail/Nightline

TEAMWORK

5 Chicken run
6 Crossing the swamp
7 Stepping stones
8 Millipede/Shepherd and sheep
9 Millipede Dash and Carry
10 Electric fence/Charlotte's web
11 Danger UXB!

NAVIGATION

12 Kim's trail
13 Find that photo
14 What's the score?
15 Sign up
16 Cardinal cones
17 Guiding star
18 Navigation line

EXPLORING THE NATURAL WORLD

19 Rainbow chips/Skywalk/ Scavenger hunt
20 Dragon's egg/Bat and moth/ Surround sound

Extending the challenge

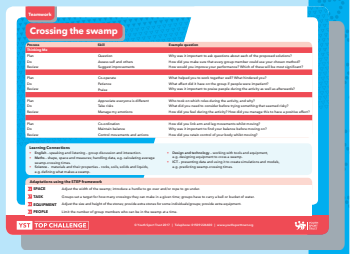
21 Creating an outdoor classroom/Signposts

Cards

The front of the card focuses on the activity and contains the following:

- Examples of outcomes the activities can achieve.
- A description of how to set up the activity.
- Illustrations to support the description.
- Safety points.
- Suggestions for equipment.

The back of the card focuses on personal learning and thinking skills and contains the following:



Thinking me (cognitive and creative ability).

- Skills and qualities that develop children's ability to become independent learners.

Social me (social ability).

- Skills and qualities that develop children's ability to work well with others.

Healthy me (physical and mental health incorporating personal ability)

- Skills and qualities that develop the children's physical and mental health.

Physical me (physical ability)

- Skills and qualities that develop children's ability to move effectively and efficiently.

Each of the four headings provide some examples of skills and qualities that support development of the four key elements – trust and co-operation, teamwork, navigation and exploring the natural world.

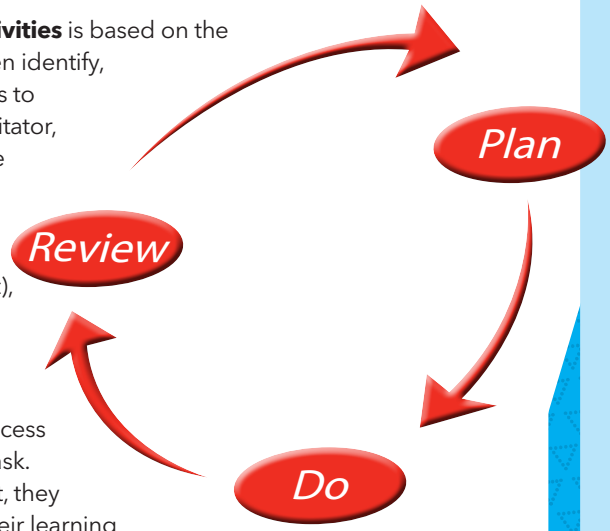
A series of questions for each skill is identified which aims to involve the children in more discussion and higher order thinking, helping them review and recognise their learning.

The cards provide only some of the many examples of skills, qualities and questions and it must be stressed the list is NOT exhaustive.

The back of the card also includes adaptations and variations using the STEP framework.

Plan-do-review process

Effective learning through challenge activities is based on the plan-do-review process of learning. Children identify, implement and evaluate their own solutions to challenges, whilst the teacher acts as a facilitator, drawing out their learning through effective use of questioning and other review tools. The children are given opportunities to improve by transferring that learning to the next challenge (or another learning context), re-applying the plan-do-review process. **Plan-do-review should lead to an upward spiral of learning.**



Plan-do-review is an effective learning process even if the children fail to accomplish the task. However, to ensure a sense of achievement, they should be given an opportunity to apply their learning to the same or a similar task; it is not the teacher's responsibility to supply a solution. Similarly, as long as they are safe, children should be permitted to trial their own solutions – there is never a 'right' way to do it. If the children fail to recognise their learning (perhaps because the challenge was too easy), they should be tasked with an extended or different challenge that focuses on the required skills. **TOP Challenge seeks to help children recognise and articulate their skills, not just develop them!**

The **example questions** on the back of the cards and the sample review tools in the downloadable PDF files will support teachers to facilitate the review element of the plan-do-review process.

Downloadable pdfs (available from www.youthsporttrust.org):

- **A.** Managing groups
- **B.** Review tools
  - **B1:** Star chart
  - **B2:** How do you feel today?
  - **B3:** Family tree (who are you and why?)
  - **B4:** Team role review cards
- **C.** Maps for What's the score?
- **D.** Map symbols for Sign up
- **E.** Route cards for Cardinal cones
- **F.** Control cards for Guiding star
- **G.** Geocaching: how to get involved
- **H.** Control cards for Navigation Line

STEP Framework

The BACK of the card also includes adaptations and variations using the STEP framework.

This provides a prompt as to how activities may be modified to include all children or to vary the level of challenge. Changes can be made to the:

S **SPACE - Where is the activity happening?**

- > Is it indoors or outdoors, on or off the school site?
- > Can the surface be changed?
- > Can the level/height be changed?
- > Can the area or distance be changed?

T **TASK - What is happening?**

- > Can the objective be changed?
- > Can the rules or time constraints be changed?
- > Can individuals/groups do different tasks at different times?

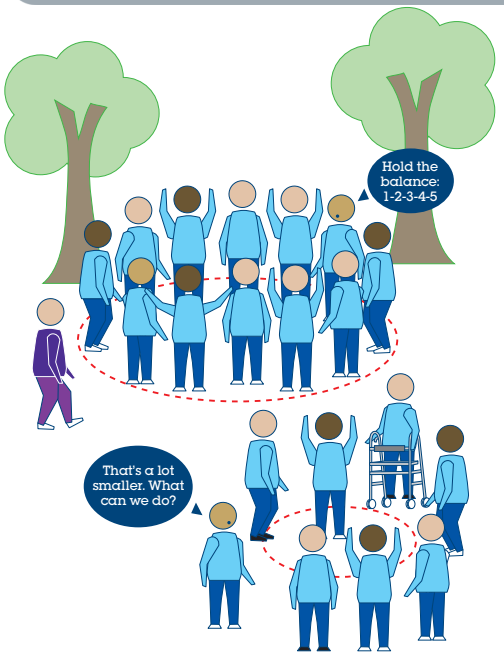
E **EQUIPMENT - What objects, implements are being used?**

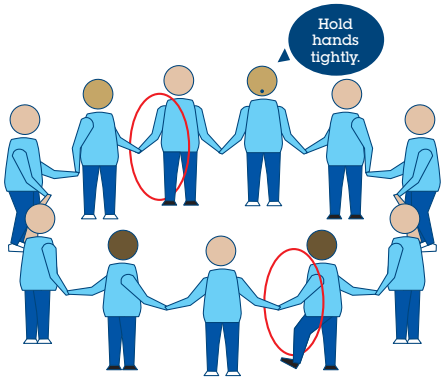
- > Are natural or artificial resources being used?
- > Can additional or alternative tools be used?
- > Can the number, placement or type of obstacles be changed?

P **PEOPLE - Who is doing what?**

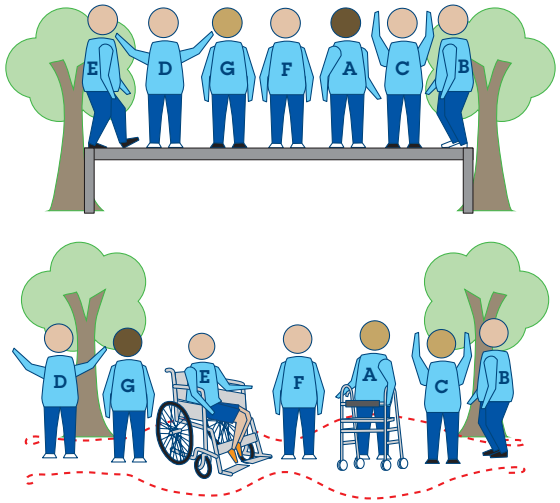
- > Are children working individually, in pairs or in groups?
- > Are children grouped by age, size, ability or friendships?
- > Can children adopt different roles?

1 All aboard • Hoopla • Line up





No letting go of each other's hands.



No stepping off of the bench.

If anyone falls off the bench, everyone starts again.

All aboard

Objective: get all of the group members in the circle.

Rules:

- No part of any person may touch the ground outside of the circle
- The group must be able to hold its balance for at least five seconds.

Equipment: hoops, ropes, cones or chalk.

Time: introduce a time limit as the children become more proficient.

Safety: make sure the children create a steady base if supporting each other.

Hoopla

Objective: pass the hoop around the group without breaking the circle.

Rules: No letting go of each other's hands (except to insert the hoop at the start).

Equipment: at least two hoops per group.

Time: see how quickly the hoop can pass around the full circle, once the children have practised.

Safety: make sure the children aren't hurting each other's arms as they twist.

Line up

Objective: from a random line-up on a bench: rearrange the group until it is in alphabetical order.

Rules: no stepping off the bench; if anyone falls off, everyone starts again.

Equipment: bench, plank, low wall or fallen tree trunk.

Time: stress that this is not a race between groups; introduce a time limit once the children have practised.

All aboard • Hoopla • Line up

Process	Skill	Example question
Thinking Me		
Plan	Solve problems	How did you decide which solution/ method to use?
Do	Organise	What did you need to think about to get everyone in the right place?
Review	Adapt	How did you make changes if your original idea didn't work?
Social Me		
Plan	Solve problems	What did you do if group members had different ideas on how to do it?
Do	Organise	Why was it important for group members to co-operate with each other?
Review	Adapt	How did you make sure that everyone understood and agreed with the solution?
Healthy Me		
Plan	Solve problems	Who took on which jobs and why?
Do	Organise	What did you have to consider to make sure no-one got hurt?
Review	Adapt	Why was it important for every group member to be enthusiastic?
Physical Me		
Plan	Solve problems	What do you need to consider when working as a group rather than individually?
Do	Organise	How did you keep your balance? Which parts of the body helped you to balance?
Review	Adapt	What different positions did you use? Why did you need to change position?

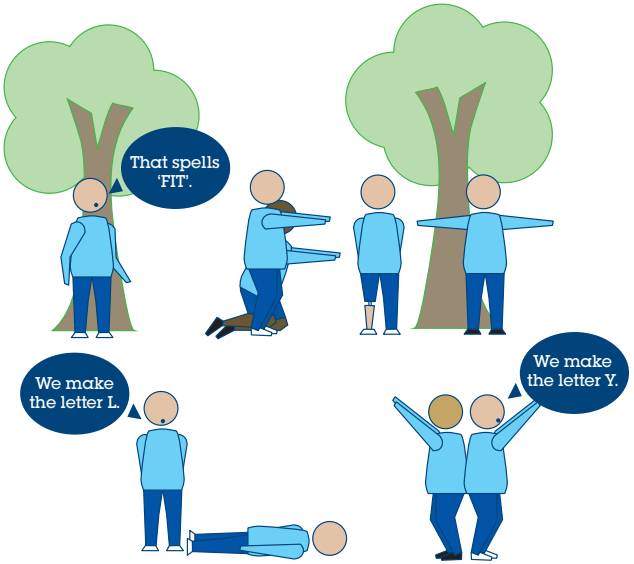
Learning Connections

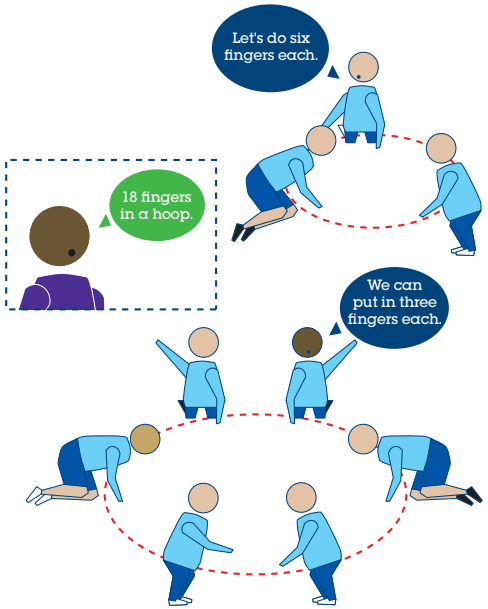
- **Maths** – shape, space and measures.
- **Art and design** – shape, form and space.
- **English** – speaking and listening – group discussion and interaction; writing – forms of writing, e.g. using the rotating hoop to inspire circle stories.

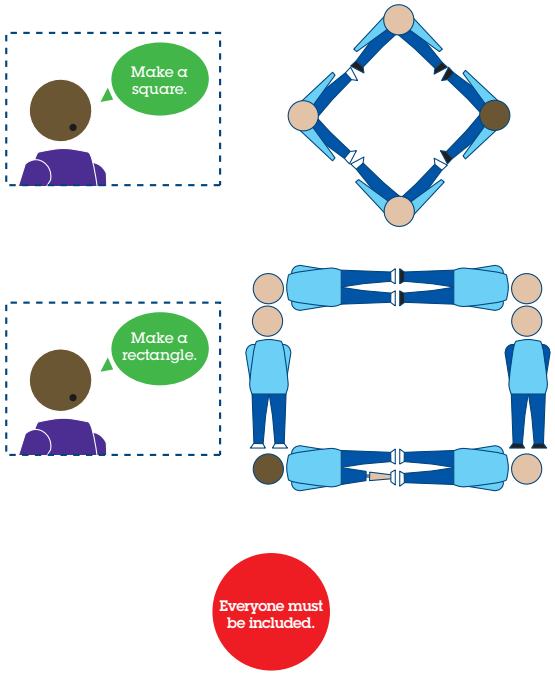
Adaptations using the STEP framework

	All aboard	Hoopla	Line
S **SPACE**	Vary the size of the circles.	Vary the diameter of the hoops.	Use a rope or chalk lines instead of a raised bench.
T **TASK**	Adjust the length of the balance.	Keep changing the direction of the hoops.	Vary the category, e.g. height, age, birthday date.
E **EQUIPMENT**	Use a secure base raised off the floor (crate, bench).	Introduce more hoops; use a large hoop of rope for wheelchair users.	Allow the children to lean against a wall.
P **PEOPLE**	Adjust the group sizes.	Vary the group size or make-up.	Introduce a rule of no-speaking; only one person moves at a time.

2 Spell it out • Count me in • Get in shape







Spell it out

Objective: create letters and words using group members' bodies.

Rules: make the letter or word the teacher calls out; everyone must be included.

Time: introduce a time limit as the children become more proficient.

Safety: make sure the children create a steady base if supporting each other.

Count me in

Objective: place the correct number of body parts in the hoop to add up to the given 'sum'.

Rules: travel around the hoops until instructed; everyone must be included.

Equipment: hoops, cones, ropes or chalk.

Time: introduce a time limit for each 'sum' as the children become more proficient.

Safety: be careful not to bump heads when bending down to a hoop.

Get in shape

Objective: create shapes using group members' bodies.

Rules: make the shape the teacher calls out; everyone must be included.

Time: introduce a time limit as the children become more proficient.

Safety: make sure the children create a steady base if supporting each other.

Spell it out • Count me in • Get in shape

Process	Skill	Example question
Thinking Me		
Plan	Consider	What did you need to consider before making your letter/sum/shape?
Do	Create	How did you create a variety of potential solutions?
Review	Apply knowledge	How did you know if your solution was correct or not (before the teacher checked it)?
Social Me		
Plan	Collaborate	How did you work together to create your solutions?
Do	Involve everyone	How did you make sure that every group member was fully involved?
Review	Actively participate	What difference does it make to the group if not everyone participates fully?
Healthy Me		
Plan	Confident	When did you feel confident about your solution? What helped you to feel that way?
Do	Committed	Why did you, as an individual, want your group to succeed?
Review	Persevere	When things were difficult, what kept you going?
Physical Me		
Plan	Agility	How did you avoid collisions when moving?
Do	Co-ordination	What helped you to match your movements to other people's movements?
Review	Flexibility	When did you demonstrate most flexibility? What was your body doing then?

Learning Connections

- English – speaking and listening – group discussion and interaction; writing – spelling; reading – vocabulary.
- Modern foreign languages – memorising words, e.g. use foreign words for Spell it out.
- Maths – number and algebra; shape, space and measures.
- Art and design – communicate ideas; design and make images, e.g. making images with bodies and photographing them.
- Design and technology – mechanisms and movement.

Adaptations using the STEP framework

	All aboard	Hoopla	Line
S **SPACE**	Stand, sit, kneel, crouch or lie down.	Weave in and out of the circles between 'sums'; don't just go round the outside.	Stand, sit, kneel, crouch or lie down.
T **TASK**	The children create their own words or challenge each other.	Ask for specific movements between 'sums', e.g. quickly, backwards, low.	Groups co-operate and create a collage of shapes or 'machine' of interlocking/ moving parts.
E **EQUIPMENT**	Incorporate pieces of sports equipment, e.g. hockey sticks, dance scarves, balls.	A hoop can be picked up to waist height to accommodate wheelchair users.	Give each group a length of rope/ elastic; all group members keep hold of it as they work.
P **PEOPLE**	Work in pairs, small groups or as a whole class (to make a sentence).	Ask the children to suggest body parts and 'sums'.	Blindfold all group members but one; s/he can only talk not touch.

3 Trusting me

Pass the squeeze

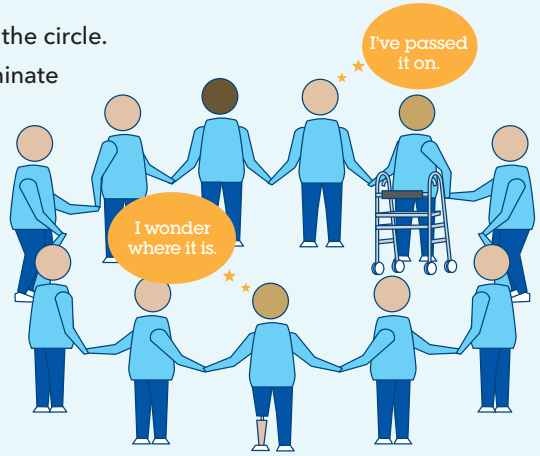
Objective: pass a hand squeeze around the circle.

Rules: no talking; keep eyes closed; nominate one person to start by a tap on the shoulder.

Equipment: stopwatch.

Time: time how long the squeeze takes to get back to the start; see how quickly it can be done.

Safety: squeeze hands gently.



No talking and keep eyes closed!

Squeeze hands gently.

Trusting tilt

Objective: keeping a rigid body, tilt backwards to be caught by a partner.

Rules: avoid stepping back.

Safety: tilting child keeps hands crossed over chest; catching child keeps hands ready and has a steady base; start close together and gradually increase the distance.

Start closer together and gradually increase distance.

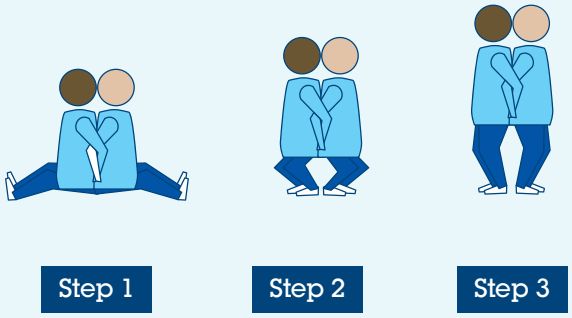
Avoid stepping back.

Trusting balance

Objective: sitting back-to-back in pairs with linked arms, try to stand up.

Rules: keep arms linked.

Safety: wear appropriate footwear to prevent slipping.



Keep arms linked at all times.

Wear appropriate footwear to prevent slipping.

Blindfold trust

Objective: guide a partner safely around a course.

Rules: one person is blindfolded, the other can see.

Safety: do not push or drag the non-sighted person; wear appropriate footwear for the terrain.

Do not push or drag the non-sighted person.

Wear appropriate footwear for the terrain.

Trusting me

Process	Skill	Example question
Thinking Me		
Plan	Set goals/ targets	What did you take into account before you set yourself a target?
Do	Predict	Why did you need to predict what would happen?
Review	Modify	When and why did you need to modify your techniques?
Plan	Listen	How did you know your partner/ group was really listening to you?
Do	Show respect	How did you show respect for your partner/ group members?
Review	Patience	Why was it important to have patience during this activity?
Plan	Responsible	How did you show you were behaving responsibly and could be trusted by your partner?
Do	Self-control	What helped you to keep your self-control during the activity?
Review	Confident	Why was it important to appear confident, even if feeling nervous? How did you do that?
Plan	Work and perform in pairs	How did you change your techniques when working with different partners?
Do	Vary weight of actions	How did you judge how much force/ weight to use?
Review	Mirror actions	If you couldn't see, what helped you to move in tandem with other people?

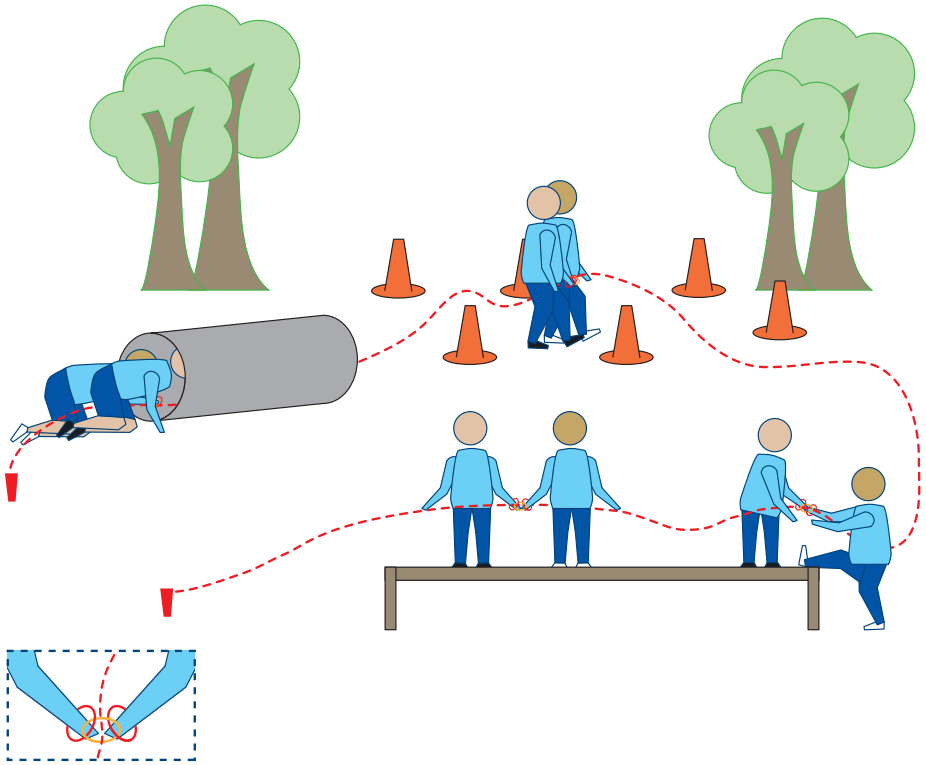
Learning Connections

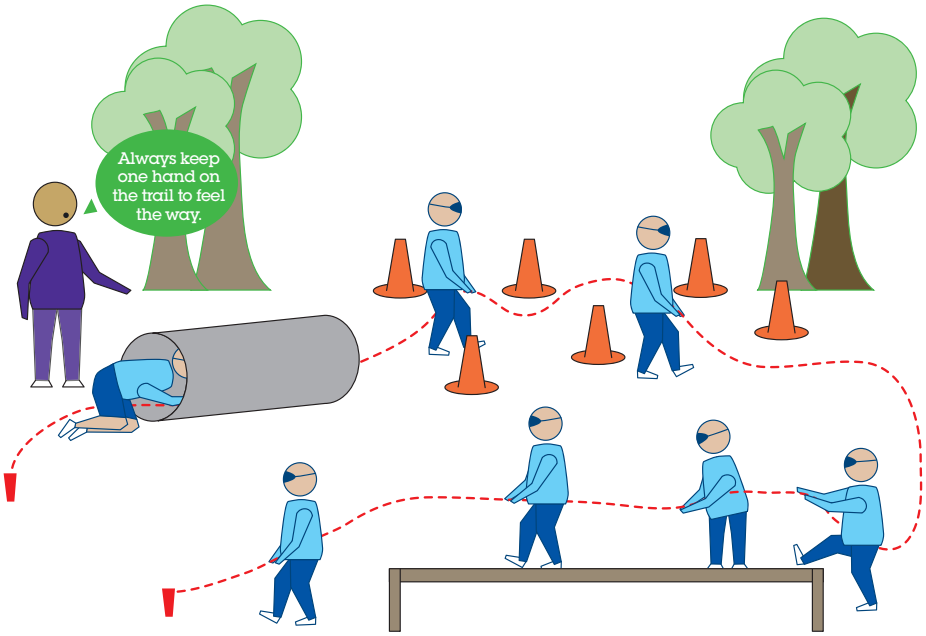
- **Science** – forces and motion.
- **Geography** – knowledge and understanding of places.
- **Art and design** – exploring tactile as well as visual elements and stimuli.
- **PSHE** – recognising risks and behaving responsibly; recognising the effect of one's actions on other people's feelings.

Adaptations using the STEP framework

S SPACE	For blindfold trust, use indoor and/or outdoor spaces.
T TASK	For trusting tilt, start in pairs and work towards small groups; for blindfold trust, move from physical to verbal guidance.
E EQUIPMENT	For blindfold trust, use natural and/or artificial obstacles.
P PEOPLE	For all trust activities, vary pairings and groupings so children build trust with more of their peers.

4 Twin trail • Nightline





Twin trail

Objective: working in pairs, joined at the wrist by a wristband, follow the trail through the obstacles.

Rules: do not slip out of the wristband; help each other.

Equipment: twine, rope or washing line for the trail; natural and/or artificial obstacles; wristbands (these could be handmade, e.g. from laces, ribbons, strong elastic).

Time: allow pairs to take their own time; it is not a race.

Safety: make sure the trail line is slack; do not make the wristbands too tight; do not drag each other; pairs may not overtake each other; wear appropriate footwear for the terrain.

Nightline

Objective: wearing a blindfold, follow the trail through the obstacles.

Rules: one hand on the trail line; do not peek; follow the trail in silence.

Equipment: twine, rope or washing line for the trail; natural and/or artificial obstacles; blindfolds.

Time: allow individuals to take their own time; it is not a race.

Safety: make sure the trail line is slack; lead the children to the start; no overtaking or pushing from behind; wear appropriate footwear for the terrain.

Twin trail • Nightline

Process	Skill	Example question
Thinking Me		
Plan	Examine	Why was it helpful to examine each trail/ obstacle before tackling it?
Do	Explore	What helped you to decide how you should overcome each obstacle?
Review	Consider	Having done one trail, what factors would you consider before starting the next one?
Plan	Show awareness of others	How did you take advantage of each other's strengths and/or overcome weaknesses?
Do	Ask for help	How did you let your partner know that you needed help?
Review	Integrity	What does integrity mean? Why was it important to have integrity during the trail?
Plan	Determined	What made you determined to complete the trail?
Do	Reliable	Why was it important to be a reliable partner? How did you show this?
Review	Manage my emotions	How does being impatient/frustrated/indifferent affect your and your partner's success?
Plan	Develop flexibility	Why was being flexible beneficial (in this activity/ in life)?
Do	Vary speed	How did you judge when to vary your speed?
Review	Perform actions with different equipment	What helped your body to deal with each obstacle?

Learning Connections

- **PSHE** – recognising risks and behaving responsibly; recognising the effect of one's actions on other people's feelings.
- **Science** – materials and their properties.
- **Art and design** – exploring tactile as well as visual elements and stimuli.
- **English – writing** – composition, e.g. using tactile and auditory stimuli to extend vocabulary and create descriptive writing.

Adaptations using the STEP framework

	Twin trail	Nightline
S **SPACE**	Set up trails in non-familiar surroundings, e.g. parks, woodland.	Vary the height of the trail line so the children have to stretch and crawl; have alternative routes for less-ambulant children.
T **TASK**	Each pair has to carry something along the trail without spilling or dropping it, e.g. a small pail of water, a kiwi fruit on a dessert spoon.	Dangle unexpected objects from the trail line, which the children have to identify and remember.
E **EQUIPMENT**	Vary the obstacles so the children have to go over, under, through and around them.	Instead of using a blindfold, encourage the children to close their eyes for as much of the line as possible.
P **PEOPLE**	Allow the children to complete the trail individually, helping those in front or behind.	The children have a sighted guide who walks along the trail beside them.

5 Chicken run

Chicken run

Objective: working in groups of four, get the chicken, corn and fox over the river in the boat, without anything being eaten.

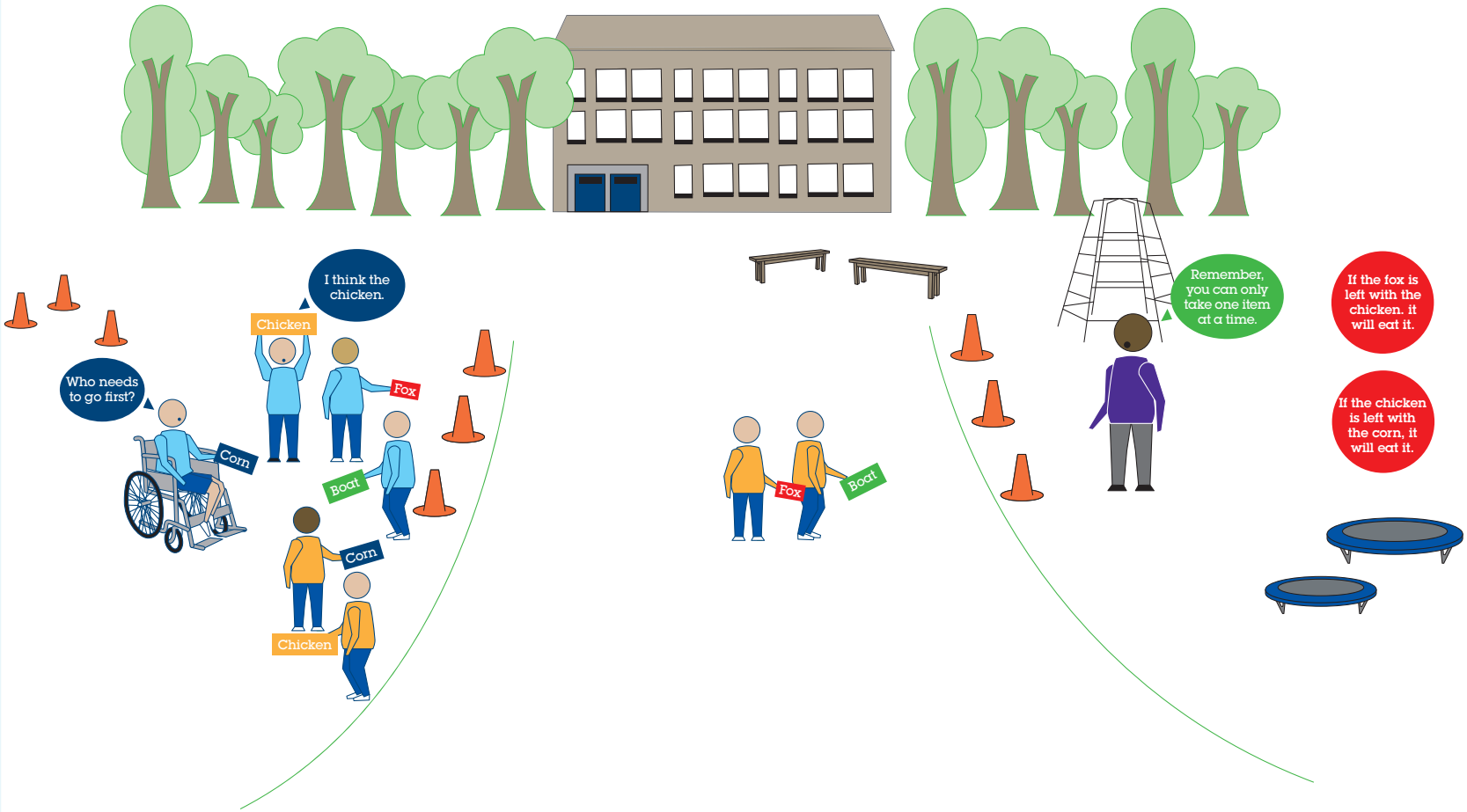
Rules:

- Only one item at a time may be taken across the river in the boat.
- All of the items and the boat must start on the near bank and end up on the far riverbank.
- if the fox is left with the chicken, it will eat it.
- If the chicken is left with the corn, it will eat it.

Equipment: cones to mark the riverbanks, labels (or objects) for the fox, chicken, corn and boat.

Time: see which group is quickest to succeed.

Safety: leave enough space between groups.



Chicken run

Process	Skill	Example question
Thinking Me		
Plan	Plan	Why was it important to have a plan before you started? What did your plan include?
Do	Solve problems	How did you generate some solutions in your group?
Review	Analyse	Why was it helpful to break down the problem?
Plan	Communicate	How did you make sure that everyone's ideas were shared?
Do	Take turns	Whilst waiting for your turn, what did you do to contribute to the group's success?
Review	Play fair	Why was it better to find your own solution rather than copying another group?
Plan	Enthusiastic	What made you enthusiastic about this activity?
Do	Cope with losing	What helped you to feel better when your group was falling behind?
Review	Manage winning	How did you behave to the other groups when you won? What effect did this have?
Plan	Move with agility	Who were the quickest runners in your group? What helped them to run fast?
Do	Vary speed	When and how did you change pace?
Review	Work and perform independently	What were you thinking about whilst running? How did this affect your running?

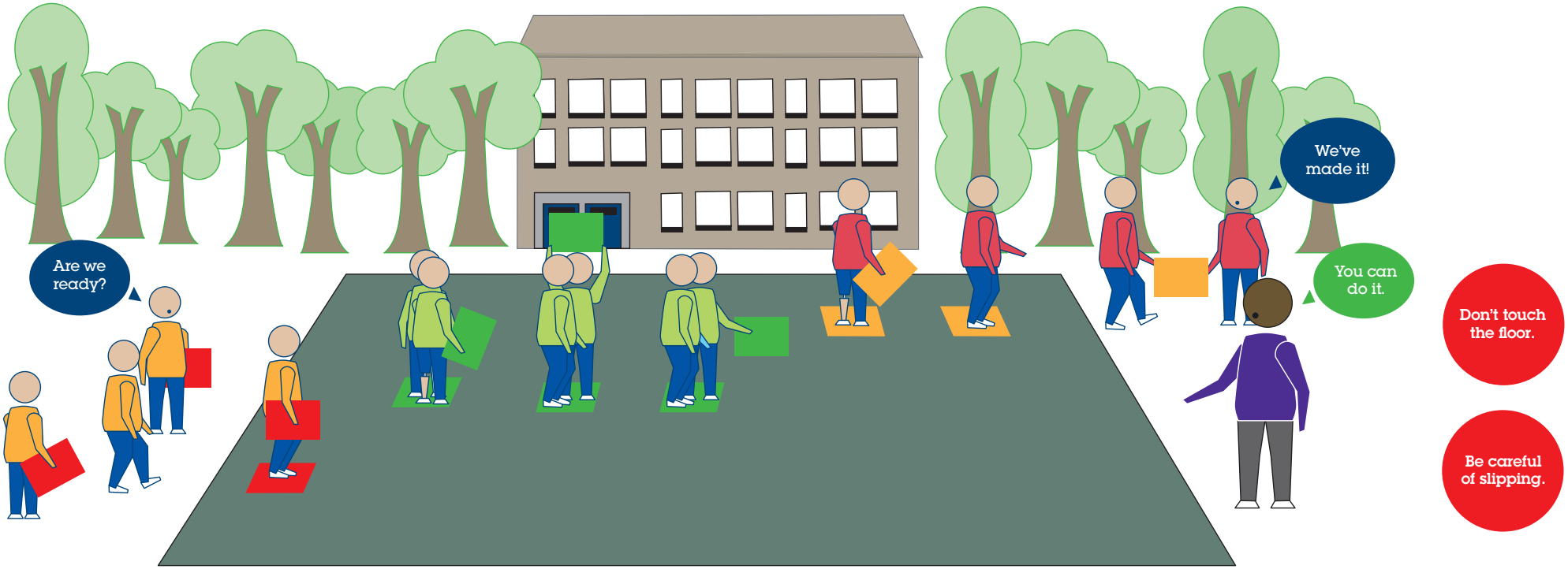
Learning Connections

- **Geography** – places and physical processes, e.g. exploring rivers.
- **Science** – life processes and living things – food chains.
- **English** – speaking and listening – group discussion and interaction; writing, e.g. using the scenario as a stimulus for a story.
- **Maths** – shape, space and measures; handling data, e.g. comparing and presenting group times.

Adaptations using the STEP framework

S SPACE	Change the width of the river.
T TASK	Ask the children to create their own 'food chain' variations.
E EQUIPMENT	Put obstacles in the river, e.g. slalom, hurdles, crawl under parachute.
P PEOPLE	Take turns to be the 'boat' if there are more than four in a group.

6 Crossing the swamp



Chicken run

Objective: get the whole group across the swamp without anyone falling in.

Rules:

- All group members must start on one bank and end up on the opposite bank.
- Only the equipment provided may be used.
- Only the equipment provided may touch the swamp.
- If anyone falls in the swamp, the group starts again.
- All of the equipment used must end up on the opposite bank.

Equipment: cones to mark the banks of the swamp; crates, carpet tiles or newspaper for the stepping stones.

Time: if using unstable stepping stones, do not race between groups; to increase the challenge, introduce a time limit.

Safety: recognise potentially unstable stepping stones and limit their use to one child per stone at a time; be careful of slipping if using newspaper on a smooth floor.

Crossing the swamp

Process	Skill	Example question
Thinking Me		
Plan	Question	Why was it important to ask questions about each of the proposed solutions?
Do	Assess self and others	How did you make sure that every group member could use your chosen method?
Review	Suggest improvements	How would you improve your performance? Which of these will be most significant?
Plan	Co-operate	What helped you to work together well? What hindered you?
Do	Patience	What effect did it have on the group if people were impatient?
Review	Praise	Why was it important to praise people during the activity as well as afterwards?
Plan	Appreciate everyone is different	Who took on which roles during the activity, and why?
Do	Take risks	What did you need to consider before trying something that seemed risky?
Review	Manage my emotions	How did you feel during the activity? How did you manage this to have a positive effect?
Plan	Co-ordination	How did you link arm and leg movements whilst moving?
Do	Maintain balance	Why was it important to find your balance before moving on?
Review	Control movements and actions	How did you retain control of your body whilst moving?

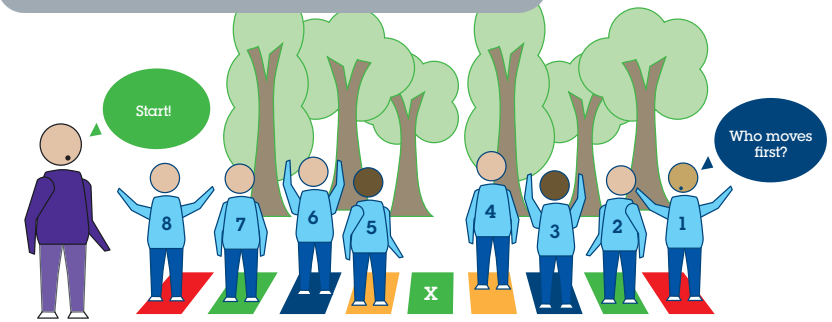
Learning Connections

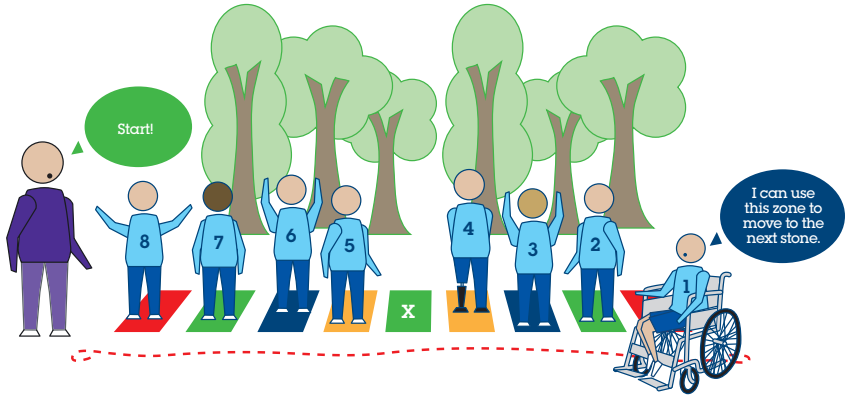
- **English** – speaking and listening – group discussion and interaction.
- **Maths** – shape, space and measures; handling data, e.g. calculating average swamp-crossing times.
- **Science** – materials and their properties – rocks, soils, solids and liquids, e.g. defining what makes a swamp.
- **Design and technology** – working with tools and equipment, e.g. designing equipment to cross a swamp.
- **ICT** – presenting data and using it to create simulations and models, e.g. predicting swamp-crossing times.

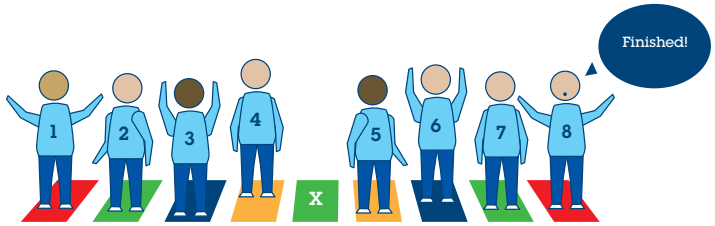
Adaptations using the STEP framework

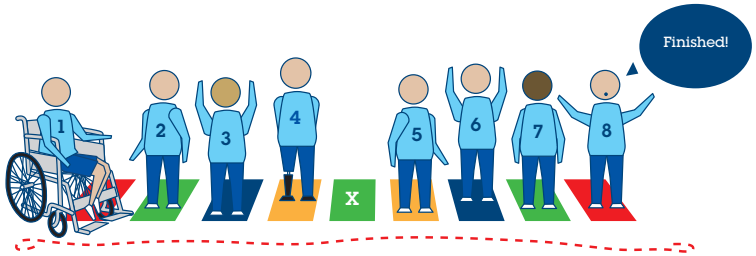
S SPACE	Adjust the width of the swamp; introduce a hurdle to go over and/or rope to go under.
T TASK	Groups set a target for how many crossings they can make in a given time; groups have to carry a bell or bucket of water.
E EQUIPMENT	Adjust the size and height of the stones; provide extra stones for some individuals/groups; provide extra equipment.
P PEOPLE	Limit the number of group members who can be in the swamp at a time.

7 Stepping stones









Stepping stones

Objective: rearrange the group members so they end up on their correct stepping stones (see finish position). The activity can be run with odd numbers in a group but always provide one step more than there are members in the group (stepping stone X). If there are multiple groups working at the same time, try to position them so they can't just copy each other.

Rules:

- Position the group members on the stepping stones (see start position) before giving them the task and rules.
- A group member may only move on to a stone if it is empty.
- Only one person may touch a stone at a time.
- Group members may move in either direction.
- Stepping stones may not be moved or rearranged (except for minor adjustments to put them back into place).
- Group members may only stand on the stepping stones; they may not use clothes, shoes etc. as additional stones.
- No-one may touch the floor at any time.
- If any rule is broken, the whole group starts again.

Equipment: sheets of newspaper, throw-down spots, carpet tiles or stepping stones marked out in chalk or masking tape; post-it notes to number the children and stepping stones.

Time: only introduce a time limit or run this as a race between groups if you wish to provide a higher level of challenge to proficient groups; around 15 minutes would be appropriate for a group of eight children.

Safety: be careful of slipping if using newspaper on a smooth floor; stick it down with masking tape if necessary.

Stepping stones

Process	Skill	Example question
Thinking Me		
Plan	Study	Why was it important to study all of the rules before starting?
Do	Solve problems	How did you solve the problem? How would you approach it differently next time?
Review	Organise	Why was it more effective to organise everyone than leave it to individual actions?
Plan	Involve everyone	What were the advantages of involving everyone from start to finish?
Do	Communicate	What helped you to communicate? What hindered you?
Review	Ask for help	Why was it important to ask for and/or accept help?
Plan	Responsible	How did you contribute to the group's success? Why was this valuable?
Do	Persevere	Why was it important to persevere when things were difficult or were going wrong?
Review	Positivity	What helped to keep you positive?
Plan	Work and perform in pairs	When and how did you support your immediate neighbours?
Do	Accurately repeat actions with control	What helped you to move along the stepping stones consistently well?
Review	Maintain balance	Which part of the body was crucial to keeping your balance?

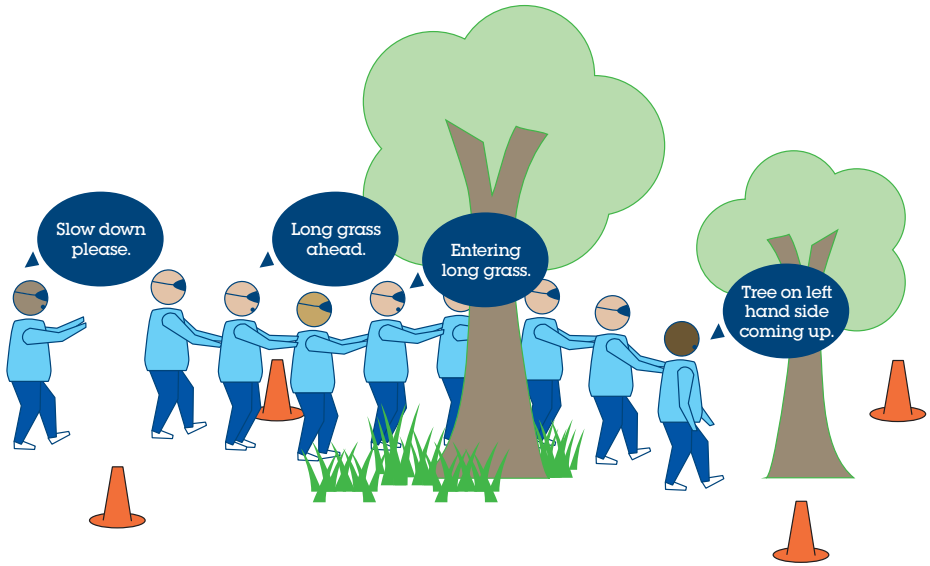
Learning Connections

- **English** – speaking and listening – group discussion and interaction.
- **Maths** – number and algebra – understanding patterns.
- **PHSE** – developing confidence and responsibility; developing good relationships.
- **History** – features of past societies and studying artefacts, e.g. linking stepping stones to historical strategy games such as Roman chess, Nine Men's Morris and Viking Tafl games.
- **ICT** – creating and using simulations to identify alternative solutions.

Adaptations using the STEP framework

S SPACE	Provide a marked 'channel' behind the stepping stones for wheelchair users or less-ambulant children; the other rules still apply.
T TASK	Blindfold one or two members of the group.
E EQUIPMENT	Adjust the distance between the stepping stones.
P PEOPLE	Nominate a leader, or ask for a volunteer leader, at the start of the activity; adjust the number of group members.

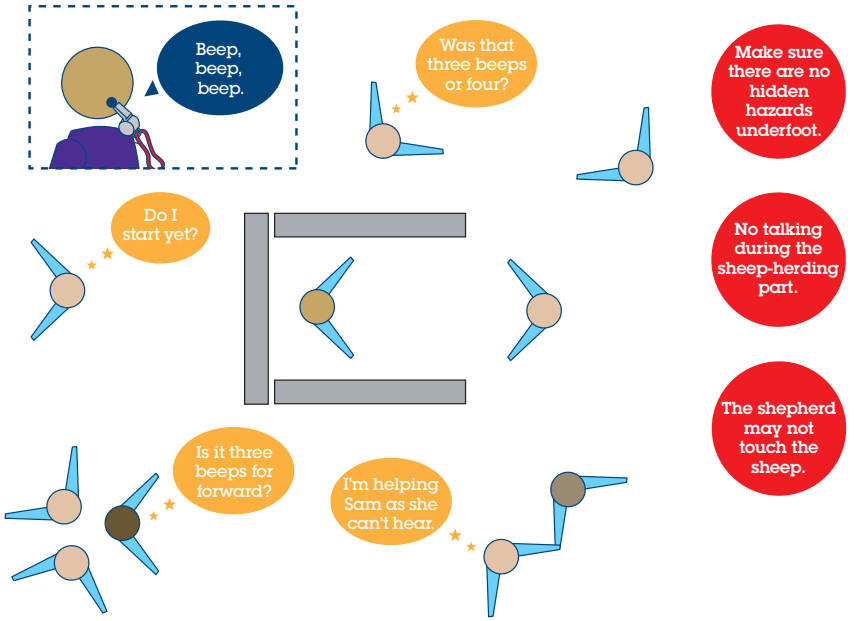
8 Millipede • Shepherd and sheep



Walking pace only.

Do not grab or tug people's hair, clothes, neck or arms.

Wear appropriate footwear for the terrain.



Twin trail

Objective: walking in line as a group, walk to a given destination, passing obstacles en route.

Rules: only the leader can see, the rest of the group is blindfolded; hold onto the shoulders of the person in front.

Equipment: blindfolds.

Safety: walking pace only; do not grab or tug people's hair, clothes, neck or arms; wear appropriate footwear for the terrain..

Chicken run

Objective: guide all of the (blindfolded) sheep safely into the sheep pen.

Rules:

- Give the group a set amount of planning time; after this, they may not talk.
- After planning time, put on the sheep's blindfolds; only the shepherd can see.
- Position the shepherd away from the sheep pen; position the sheep randomly around the space, facing different directions.
- The shepherd may not touch the sheep or move from her/his spot.
- No talking during the sheep-herding part of the activity.
- The sheep may not remove their blindfolds until all of the sheep are in the pen.

Equipment: blindfolds, whistle (optional), obstacles to create a sheep pen.

Time: give a set time for planning (around 15 minutes, depending on the ability of the group); if the group is very proficient, give a time limit for the sheep-herding.

Safety: make sure there are no hidden hazards underfoot (e.g. tree roots, pot holes); set out clear boundaries for the working space; intervene if a sheep wanders beyond the boundary.

Millipede • Shepherd and sheep

Process	Skill	Example question
Thinking Me		
Plan	Predict	How did you plan for potential situations?
Do	Adapt	How did you respond to unforeseen issues?
Review	Suggest improvements	How could you have made sure you had chosen the best possible method?
Social Me		
Plan	Communicate	How did you alter your communication if people didn't respond as expected?
Do	Listen	How did you check that people had really listened?
Review	Give constructive feedback	What is meant by constructive feedback? Why was it important to be constructive?
Healthy Me		
Plan	Reliable	What skills and qualities did you need to be a good leader/shepherd?
Do	Work safely	Why was it important to be aware of and anticipate hazards?
Review	Persevere	How would it make you (and others) feel if you hadn't persevered?
Physical Me		
Plan	Accurately repeat actions with control	Why were accuracy and consistency important?
Do	Work and perform independently	How did you make sure you could perform to the best of your ability?
Review	Vary speed	When were you confident to move quickly? Why?

Learning Connections

- **PSHE** – speaking and listening – responding to others appropriately, group discussion and interaction, language variation; reading – stories, e.g. The Haymeadow by Gary Paulsen, or non-fiction about shepherds.
- **History** – historical enquiry, e.g. the history of sheep farming in Britain and its effect on landscape and lifestyles.
- **Geography** – places; patterns and processes; environmental change and sustainable development.
- **RE** – the symbolism of sheep and shepherds in different religions and cultures.
- **PSHE** – the range of jobs people do and the skills needed; sustainability of the environment.
- **Design and technology** – generate ideas for products, e.g. exploring the development of communications systems.
- **ICT** – using ICT tools to capture and change sounds, creating new communications systems.
- **Modern foreign languages** – e.g. using other languages instead of non-verbal communication methods.

Adaptations using the STEP framework

	Millipede	Shepherd and sheep
S **SPACE**	Encourage the children to explore different environments and terrains.	Extend or reduce the working area; work indoors or outdoors.
T **TASK**	Challenge the group to do it in silence and compare that to when they may talk.	Introduce a time-out during the activity, when the group can adapt its communication method if necessary; set a time limit.
E **EQUIPMENT**	Instead of wearing blindfolds, just close eyes; use a length of cord to attach a child who uses mobility aids.	Place additional obstacles around the space; have two sheep pens in different positions.
P **PEOPLE**	Keep changing the group leader; only allow certain members to relay information; vary the number of group members.	Have a pair of shepherds; provide a hearing-impaired sheep with a buddy or allow the child to remove the blindfold when they wish.

9 Millipede Dash and Carry

Millipede

Objective: working in groups collect as many objects as possible without stepping out of the hoop.

Rules: Millipede Dash

- Working in teams of 5-6. Each team stands in a line with child standing in a hoop. All hoops must be touching at all times.
- Millipedes can only move forward by the last child in line stepping into the hoop in front then picking up their empty hoop, and passing it to the front.
- The child in front then places the hoop on the ground and steps into it. Every player then shifts forward and the millipede has moved.
- Aim is to get across the finish line within the time limit.

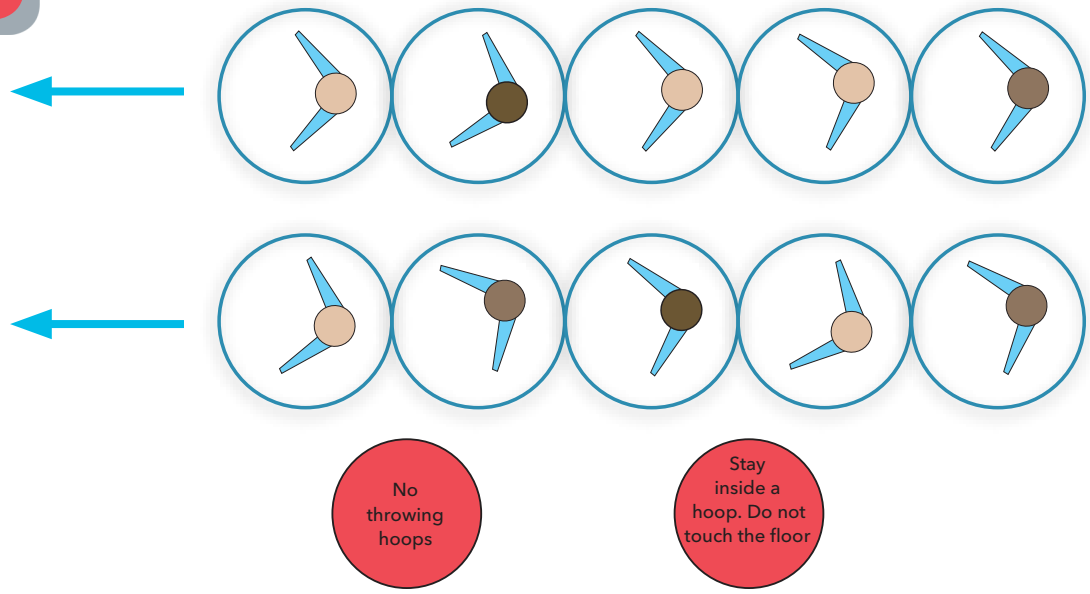
Rules: Millipede Carry

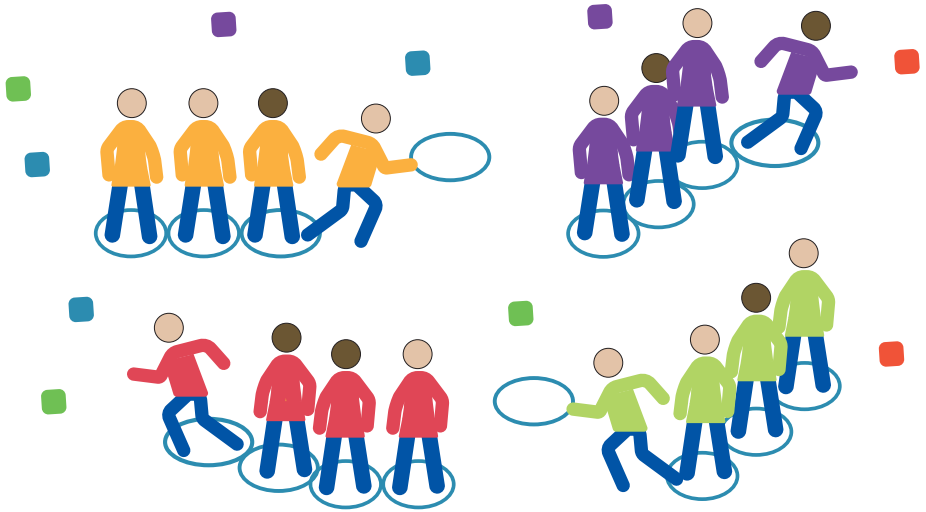
- Working in teams of 5-6. Only the child in the front hoop can pick up the equipment from the floor.
- Only the children behind the front child can carry the collected objects throughout the game.
- The winning millipede is the one with the most equipment.

Equipment: hoops, beanbags, quoits, small balls, Koosh balls, Blindfolds (optional).

Time: introduce a time limit if you wish to provide a higher level of challenge to proficient groups.

Safety: no throwing hoops forward, keep each other safe when moving between hoops.





Millipede

Process	Skill	Example question
Thinking Me		
Plan	Plan	How would you improve your planning process if you did it again?
Do	Assess self and others	How did you decide who would lead the millipede?
Review	Suggest improvements	How would you improve your performance?
Plan	Involve everyone	Why is it important to involve everyone in the planning stage?
Do	Communicate	How well did you communicate? What helped? What hindered?
Review	Praise	Why is it important to praise people during the activity as well as afterwards?
Plan	Appreciate everyone is different	How did you respond if a group member failed to do something you found easy?
Do	Self-control	What happened if you got over-excited? How did you keep calm?
Review	Positivity	What helped keep you positive?
Plan	Repeat actions with control	Why were accuracy and consistency important when moving?
Do	Co-ordination	How did you make sure that you didn't drop any equipment?
Review	Maintain balance	Which parts of your body helped balance the equipment?

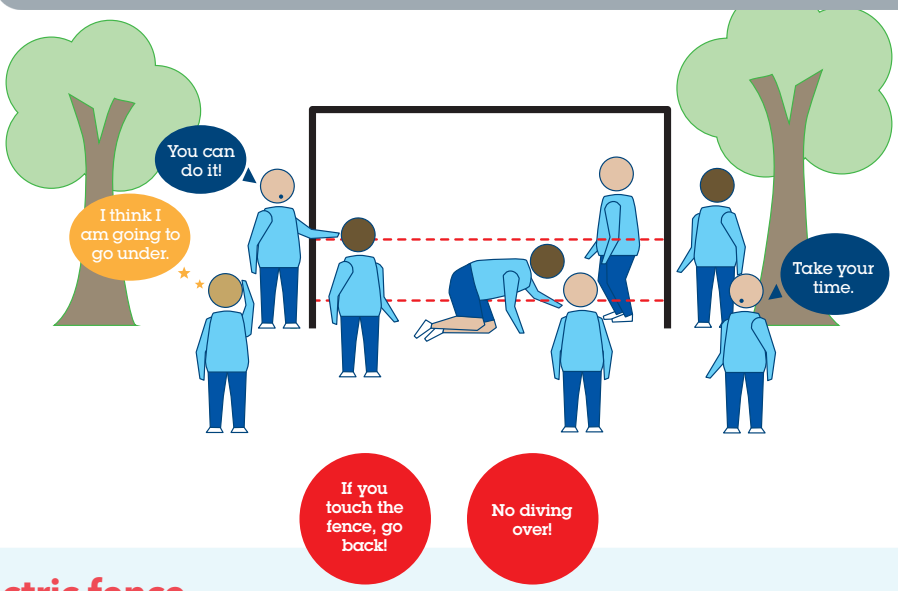
Learning Connections

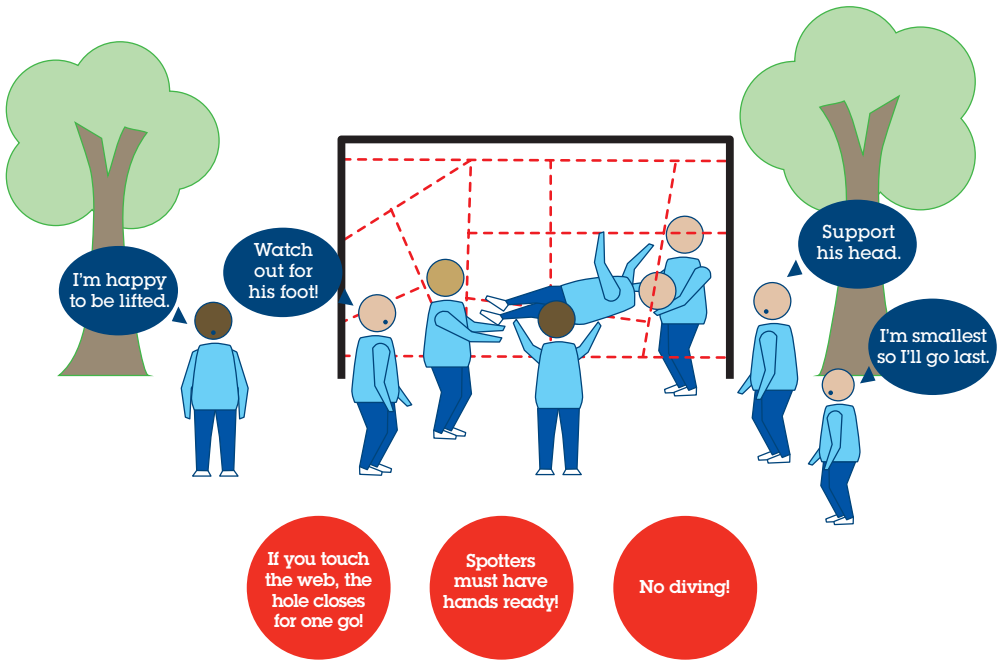
- **English** – speaking and listening – group discussion and interaction.
- **Maths** – Number – place value e.g. pupils identify the place value in large whole numbers. Measure – e.g. read, write and convert between standard units.
- **PSHE** – developing confidence and responsibility; developing good relationships.
- **Science** – life processes and living things – living things and their environment e.g. millipedes

Adaptations using the STEP framework

S SPACE	Change the distance of the millipede dash.
T TASK	Blindfold one or more members of the millipede. Limit how they carry the equipment i.e. can't use hands and arms.
E EQUIPMENT	Put obstacles in the way for the millipede to navigate through.
P PEOPLE	Change the group leader.

10 Electric fence • Charlotte's web





Electric fence

Objective: get the whole group safely to the other side of the electric fence.

Rules: only the leader can see, the rest of the group is blindfolded; hold onto the shoulders of the person in front.

Rules:

- All group members must start on the same side of the fence and end up on the other side.
- No one may touch the fence; if they do, they must go back and start again.
- No one may go around the fence (imagine it is continuous).
- No additional equipment may be used.

Equipment: two uprights that won't topple over, e.g. goal posts, tree trunks; two lengths of rope or washing line, attached at the children's average knee-height and waist-height.

Safety: no diving over; make sure the children have a steady base if they are supporting each other; ask group members to act as 'spotters' for each other if they are being lifted; watch out for any other hazards, e.g. tree branches, the cross-bar of the goal posts; allow a small amount of slack in the ropes.

Time: only introduce a time limit if you wish to provide a higher level of challenge to proficient groups; stress that this is not a race.

Charlotte's web

Objective: get the whole group safely through the web to the far side.

Rules:

- All group members must start on the same side of the web and end up on the other side.
- No one may go over, under or around the web (imagine it is continuous).
- No one may touch the web; if they do, the hole closes for one turn.
- Each hole may be used only once.
- No additional equipment may be used.

Equipment: two uprights that won't topple over, e.g. goal posts, tree trunks; rope or washing line for the outer edges of the web; twine for the inner strands; gym mats for the area either side of the web (optional, and not necessary for grass, bark or earth surfaces). Or you could purchase ready-made clip-on elasticated webs.

Time: only introduce a time limit if you wish to provide a higher level of challenge to proficient groups; stress that this is not a race.

Safety: no diving through; make sure the children have a steady base if they are supporting each other; ask group members to act as 'spotters' for each other when they are being lifted – spotters must keep their hands ready; watch out for any other hazards, e.g. tree roots; allow a small amount of slack in the twine.

Electric fence • Charlotte's web

Process	Skill	Example question
Thinking Me		
Plan	Plan	How would you improve your planning process if you did it again?
Do	Assess self and others	How did you decide who should go when and how?
Review	Compare	Why was it useful to compare different methods before and during the activity?
Social Me		
Plan	Show awareness of other people	How did you make sure everyone succeeded and not just you as an individual?
Do	Motivate	How did you keep everyone motivated, especially if it took a long time?
Review	Ask for help	How can you offer help in a way that doesn't make someone feel useless?
Healthy Me		
Plan	Work safely	What were the risks? How did you manage them as a group?
Do	Self-control	What happened if you got over-excited? How did you keep calm?
Review	Take risks	How did you judge what was a manageable/ acceptable risk?
Physical Me		
Plan	Maintain balance	What did you need to do with your body when being helped through/ over the obstacle?
Do	Co-ordination	How did you make sure no part of you touched the obstacle?
Review	Develop flexibility	In what ways did your body bend and flex as you moved past the obstacle?

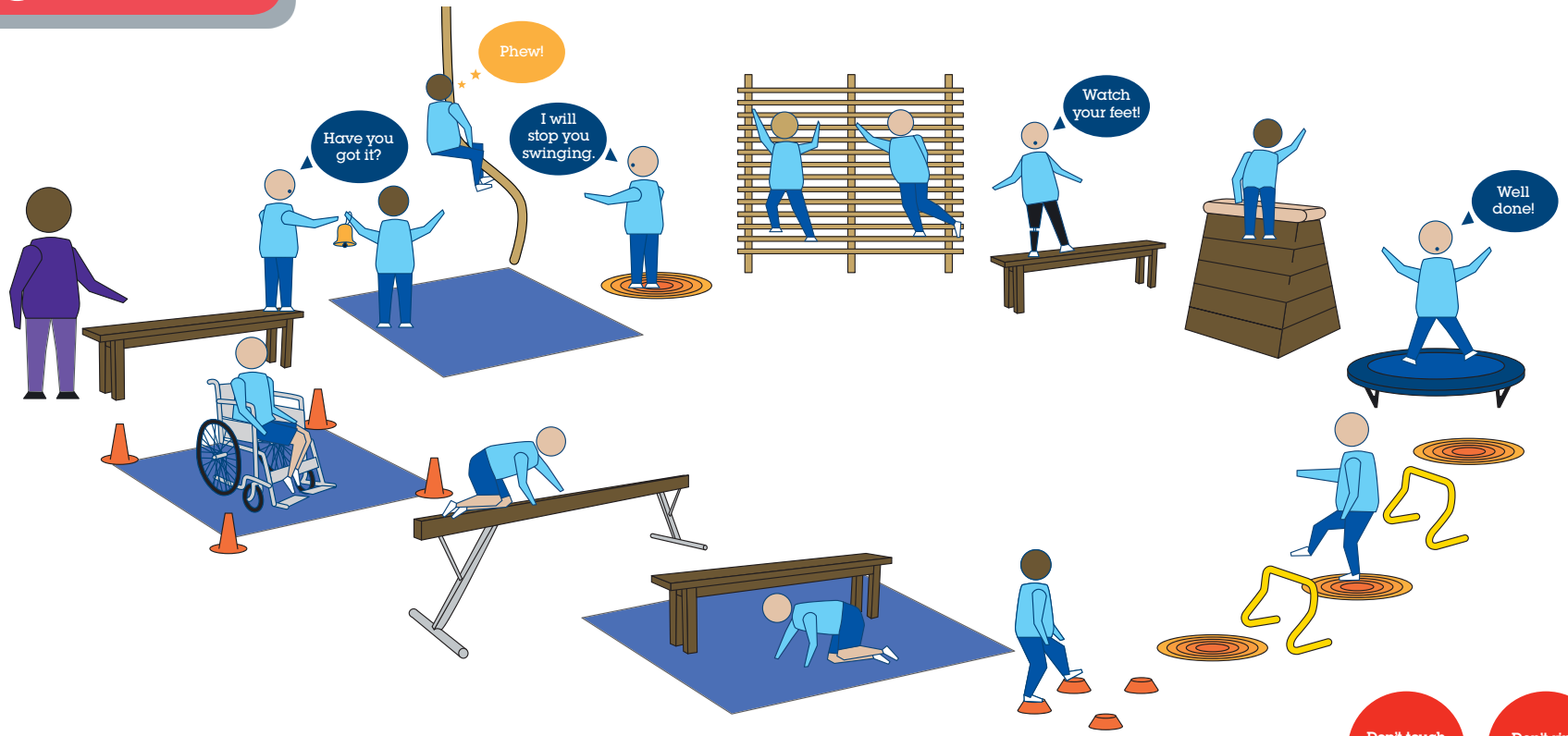
Learning Connections

- **English** – speaking and listening – group discussion and interaction; writing – composition, e.g. stimulus for writing escape or adventure stories; reading – spider stories, e.g. Charlotte's Web by E.B. White, Harry Potter and the Chamber of Secrets by J.K. Rowling, The Lord of the Rings: The Two Towers by J.R.R. Tolkien or escape stories, e.g. Once by Maurice Gleitzman, The Silver Sword by Ian Serraillier, Escape by Paul Dowswell.
- **Maths** – shape, space and measures.
- **History** – events, people and changes from the past, e.g. the Iron Curtain and Berlin Wall, escapees from political or religious persecution.
- **Science** – life processes and living things – living things and their environment, e.g. spiders and webs.
- **Art and Design** – making art, craft and design, e.g. weaving webs and dreamcatchers.
- **ICT**– using digital cameras to photograph spiders' webs and using graphics software to design web patterns.

Adaptations using the STEP framework

	Electric Fence	Charlotte's web
S SPACE	Raise or lower the height of the fence.	Vary the sizes of the holes in the web; have a large, ground level one for wheelchair users.
T TASK	Provide an alternative challenge for children with mobility impairments, e.g. completing a slalom course equates to crossing the fence.	Allow holes to be used more than once.
E EQUIPMENT	Provide additional equipment, e.g. crates, a prop; this has to end up on the far side of the fence too.	Challenge the group to carry awkward-shaped objects through the web.
P PEOPLE	Allow one 'free' crossing per group; join group members together with a length/lengths of elastic.	Allow individuals to have a spare 'life', i.e. they are not penalised if they touch the web once.

11 Danger UXB!



Danger UXB!

Objective: transport the bell around the obstacle course without it ringing.

Rules:

- If the bell rings, it must go back to the beginning.
- The clapper must hang free (it cannot be muffled or taped to stop it ringing).
- Every member of the group must be involved.
- Neither the group members nor the bell may touch the floor.
- Give the group planning and practice time before the official run (optional for proficient groups).

Equipment: a variety of natural and/or artificial obstacles, a hand bell.

Time: introduce a time limit to provide a higher level of challenge to proficient groups or challenge the group to beat its previous time.

Safety: make sure children are aware of the potential risks associated with each obstacle and know how to minimise those risks.

Danger UXB!

Process	Skill	Example question
Thinking Me		
Plan	Set goals/targets	How did you decide which obstacle you would tackle and how you would do it?
Do	Experiment	Why was it important to experiment before making a final decision?
Review	Apply knowledge	What knowledge did you have and draw on before making your decision?
Social Me		
Plan	Involve everyone	Why was it important to consider people's skills instead of just allocating positions?
Do	Negotiate	How did you negotiate positions if more than one person chose an obstacle?
Review	Constructive feedback	How did you value someone's opinion even if you disagreed?
Healthy Me		
Plan	Appreciate that everyone is different	How did you respond if a group member failed to do something you find easy?
Do	Determined	How did you know if someone was determined to improve/ do their best?
Review	Positivity	Why was it important to be positive, even if you had to keep starting again?
Physical Me		
Plan	Vary flow of movement	What helped to make your movements more fluid?
Do	Control movements and actions	How did your body feel when you were in complete control? How did you achieve this?
Review	Develop strength	Which parts of the body needed to be strong for this activity? Why?

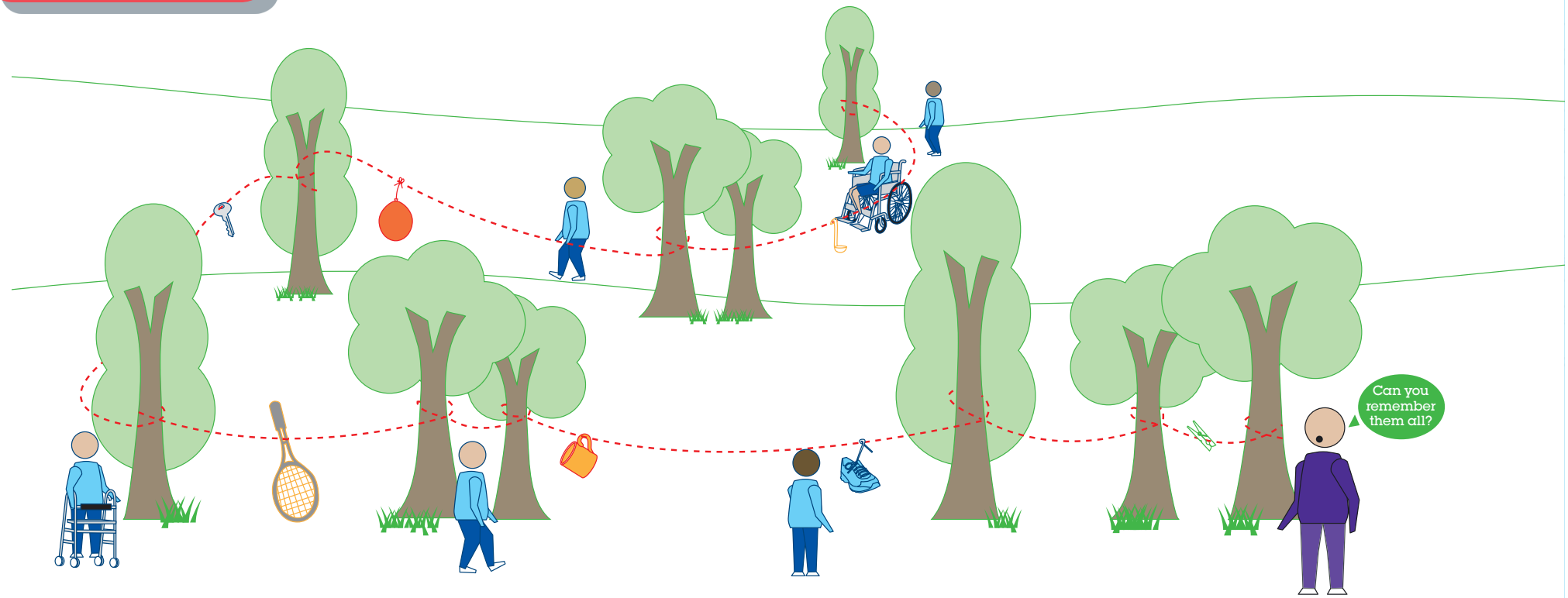
Learning Connections

- **English** – speaking and listening – group discussion and interaction; reading – stories about (unexploded) ordnance, e.g. War Boy by Michael Foreman, Bombs and Blackberries by Julia Donaldson, Pinto's Hope by Deborah A. Harrell.
- **Geography** – knowledge and understanding of places, e.g. effect on communities of unexploded ordnance in former war zones.
- **History** – Britain since 1930 – impact of the Second World War, e.g. the Blitz.
- **PSHE/citizenship** – recognising risks and behaving responsibly; using imagination to understand other people's experiences; respecting differences; finding out about international aid agencies, e.g. those working in current and former conflict zones.
- **Science** – physical processes – simple circuits, vibration and sound.
- **Maths**– shape, space and measures – properties of position and movement, understanding measures.
- **ICT** – analysing and presenting data, e.g. average times, bell rings/water spillage per metre.

Adaptations using the STEP framework

S SPACE	Include obstacles that present a range of challenges, some high and some low; work indoors or outdoors.
T TASK	Allow the bell to ring up to a specified number of times; if it rings, re-start from the previous obstacle rather than the beginning.
E EQUIPMENT	If working outdoors, use a bucket of water instead of a bell and measure how much has been spilt at the end.
P PEOPLE	Stipulate the maximum number of people allowed on an obstacle.

12 Kim's trail



Kim's trail

Objective: follow the trail and remember the objects found along it.

Rules: follow the trail visually; do not touch or remove the objects.

Equipment: twine, rope or washing line for the trail; a selection of random objects to hang from it.

Time: set a time limit to increase the level of challenge.

Safety: wear appropriate footwear for the terrain; watch out for hazards as following the trail.

Watch out for hazards when following the trail.

Wear appropriate footwear for the terrain.

Do not touch or remove the objects from the trail.

Kim's trail

Process	Skill	Example question
Thinking Me		
Plan	Explore	How did exploring the trail make you feel? How can you apply this to other lessons?
Do	Examine	What additional details did you notice? Why was it important to pay attention to details?
Review	Apply knowledge	What helped you to remember the objects on the trail? Why did these strategies work?
Social Me		
Plan	Patience	What were the advantages of being patient? How did you maintain your patience?
Do	Actively participate	Why was it important to participate properly and not just speed along the trail?
Review	Play fair	How would it make others feel if you tampered with the trail or copied their answers?
Healthy Me		
Plan	Enthusiastic	Why did being enthusiastic from the start lead to greater success?
Do	Work safely	What did you need to do to complete the trail safely?
Review	Determined	What do you need to do if you are determined to get a better score next time?
Physical Me		
Plan	Vision	How did you make sure you were aware of everything as you moved along the trail?
Do	Work and perform independently	Did you prefer to complete the trail by yourself, with a partner or in a group? Why?
Review	Develop stamina	What is stamina? Why was it important for this activity?

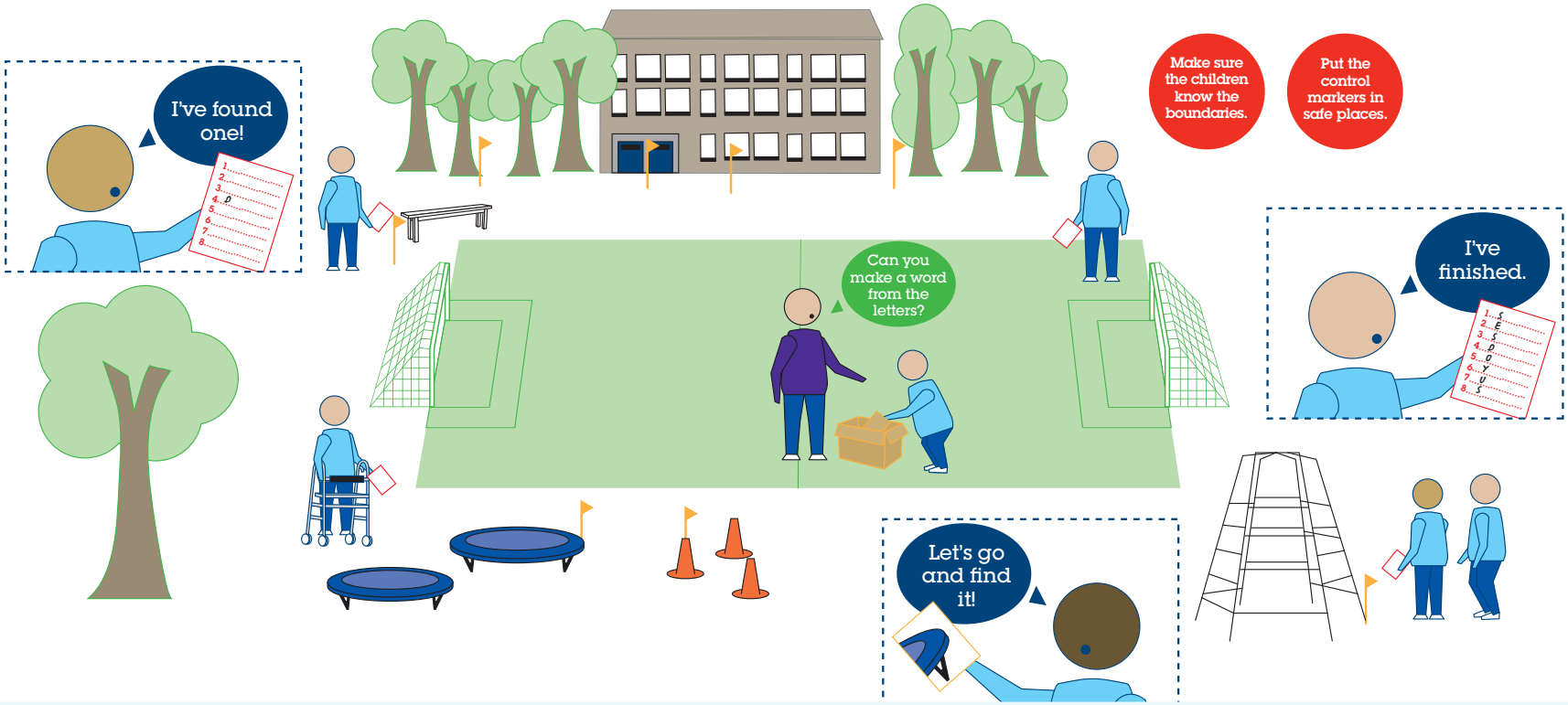
Learning Connections

- **English** – writing, e.g. recording objects; reading, e.g. using letters or words instead of objects.
- **Maths** – number and algebra, e.g. using numbers/ mathematical signs instead of objects.
- **Modern foreign languages** – e.g. recording objects in another language, collecting words written in other languages.
- **Science** – life processes and living things, e.g. using pictures of animals and plants instead of objects.
- **History** - e.g. using pictures of people or objects from the past.
- **ICT** - e.g. allowing the children to design a virtual trail and research objects or take photos to hang from it.

Adaptations using the STEP framework

S SPACE	Use indoor or outdoor spaces; set up the trail in unfamiliar surroundings, e.g. park, woodland.
T TASK	The children may record the objects as they find them; remove the fixed trail so the objects are harder to find.
E EQUIPMENT	Replace the objects with pictures, quiz questions, letters to form words (anagrams) or numbers to form sums.
P PEOPLE	The children may work individually or in pairs.

13 Find that photo



Find that photo

Objective: to identify a place on the school site from a photo.

Rules:

- Select a numbered photo from the box.
- Run to the place (the control) it represents.
- Next to the appropriate number on the control card, record the letter written on the control marker.
- Run back to base, replace the photo and select another.
- Continue until all of the controls have been visited.

Equipment:

- Photos of specific places on the school site, each one numbered.
- A control marker for each place, each with a letter.
- A numbered control card and pencil for each child/pair.

Time: set a time limit to challenge a proficient group.

Safety: make sure the children know the boundaries; put the control markers in safe places.

Find that photo

Process	Skill	Example question
Thinking Me		
Plan	Study	Why was it important to study the photo before rushing off to find the control?
Do	Make reasoned decisions	When there was more than one possible answer, how did you decide which to go for?
Review	Compare	When you reached the control, how did you check it was the right one?
Social Me		
Plan	Play fair	Why did you choose to play fairly and not just follow another pair?
Do	Actively participate	How would your partner feel if you let them do all the work?
Review	Integrity	What would you have done if your partner tried to cheat?
Healthy Me		
Plan	Confident	What helped you to feel confident about your decisions?
Do	Committed	How did your partner know that you were committed to the activity and the partnership?
Review	Responsible	What are the (wider) benefits of showing people that you can behave responsibly?
Physical Me		
Plan	Work and perform in pairs	How did you work together to maximise each other's strengths?
Do	Vary speed	How did the photo-matching activity affect your speed whilst running? Why?
Review	Develop stamina	What happens to your body when you are active for a long period of time?

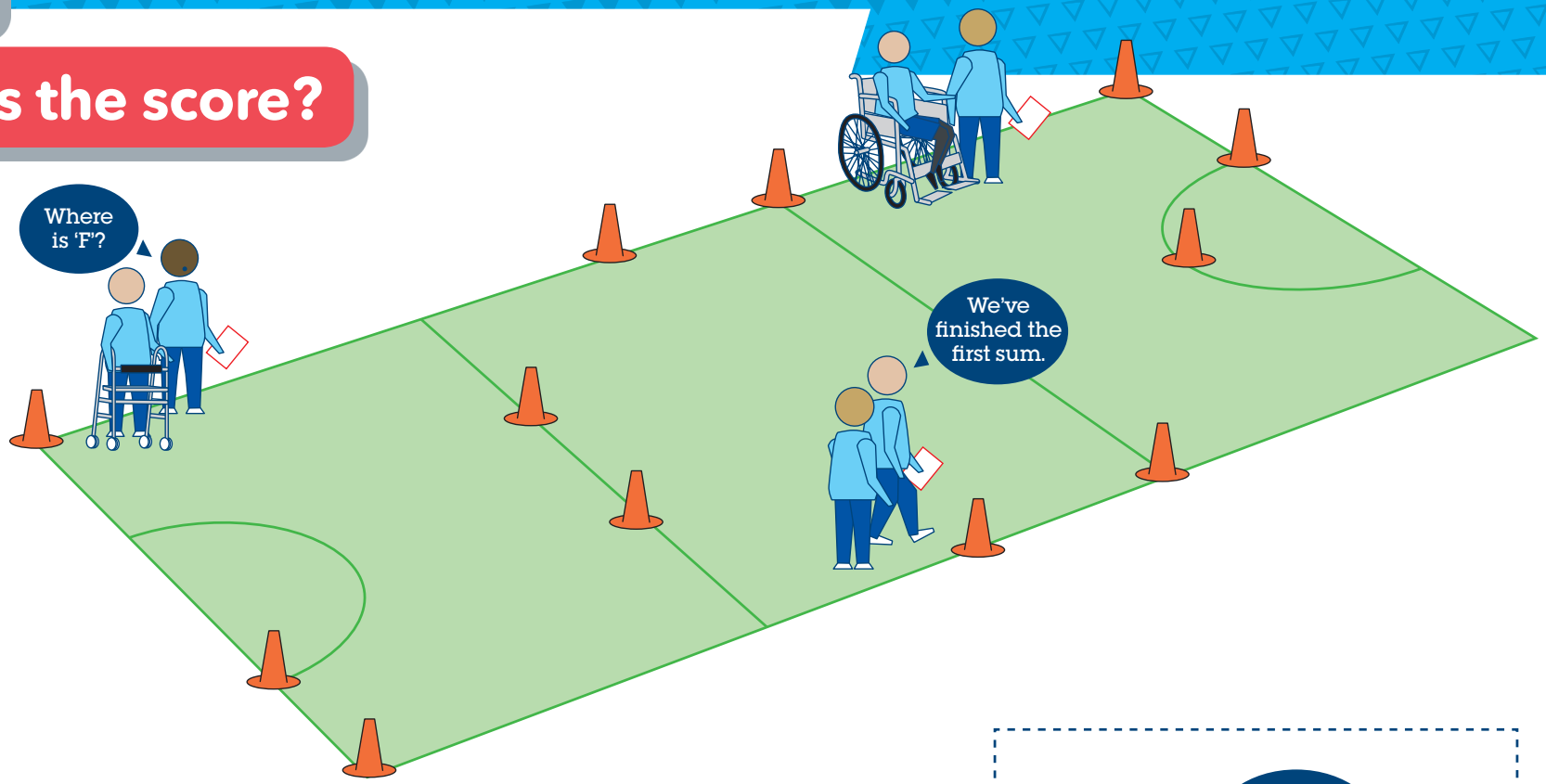
Learning Connections

- **Geography** – geographical enquiry and skills, e.g. recognising features.
- **English** – writing, e.g. recording letters; reading, e.g. if the letters make up an anagram.
- **Maths** – number and algebra, e.g. using numbers/ mathematical signs instead of letters.
- **Modern foreign language:** – e.g. deciphering anagrams written in other languages.
- **Science** – life processes and living things, e.g. identifying (parts of) plants and animals instead of collecting letters.
- **History** - e.g. collecting facts about a particular historical period or person.
- **ICT** - e.g. allowing the children to take the photos and create the control cards and markers.

Adaptations using the STEP framework

S SPACE	Visit an off-school site, e.g. outdoor activity centre, heritage site, managed woodland site.
T TASK	Decipher an anagram made up of the collected letters; see who completes the task in the quickest time.
E EQUIPMENT	Instead of returning to a central point, each control marker provides a clue to the next marker, e.g. another photo.
P PEOPLE	The children work individually, in pairs or in small groups.

14 What's the score?



What's the score?

Objective: follow the map to calculate a sum correctly.

Rules:

- Select a map (showing cones set out on the netball court).
- Visit each of the cones in order (A, B, C etc.) and note the number found on each cone.
- Add the numbers up as each cone is visited.
- At the end, check the total is correct for that map; if not, re-check the sum or the cones.
- If correct, select a different map and repeat.
- Continue until all of the maps have been completed.

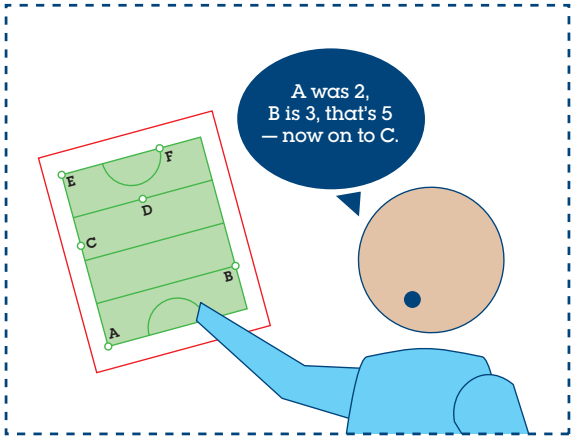
Equipment:

- Cones, each with a number.
- A series of maps (each with a different combination of cones) – downloadable PDF C.
- A master score sheet, showing the correct totals for each map.

Visit each of the twine, rope or washing line for the trail; a selection of random objects to hang from it.

Time: set a time limit to challenge a proficient group.

Safety: make sure the children are aware of other pairs if they are running around the court; heads up whilst running with a map.



Visit each of the cones in alphabetical order.

Heads up whilst running with a map.

What's the score?

Process	Skill	Example question
Thinking Me		
Plan	Plan	What were the advantages of planning ahead? What did your planning need to consider?
Do	Apply knowledge	What made you confident that you had the right answers?
Review	Analyse	If you made a mistake, how did you correct this?
Social Me		
Plan	Collaborate	Why was it important to collaborate and not let one person lead all the time?
Do	Motivate	How did you motivate each other during the activity?
Review	Communicate	How did you check that you were in agreement? What did you do if you weren't?
Healthy Me		
Plan	Enthusiastic	When choosing a partner, how would you know if they were enthusiastic or not?
Do	Persevere	How did you respond when you had to do it again because you had made a mistake?
Review	Confident	What effect did completing more than one map have on your confidence? Why?
Physical Me		
Plan	Work and perform in pairs	How and why did you adjust the way you worked together over the series of maps?
Do	Vary speed	What helped you to slow down and speed up as necessary? What was your body doing?
Review	Move with agility	How did you change direction quickly whilst moving around the court?

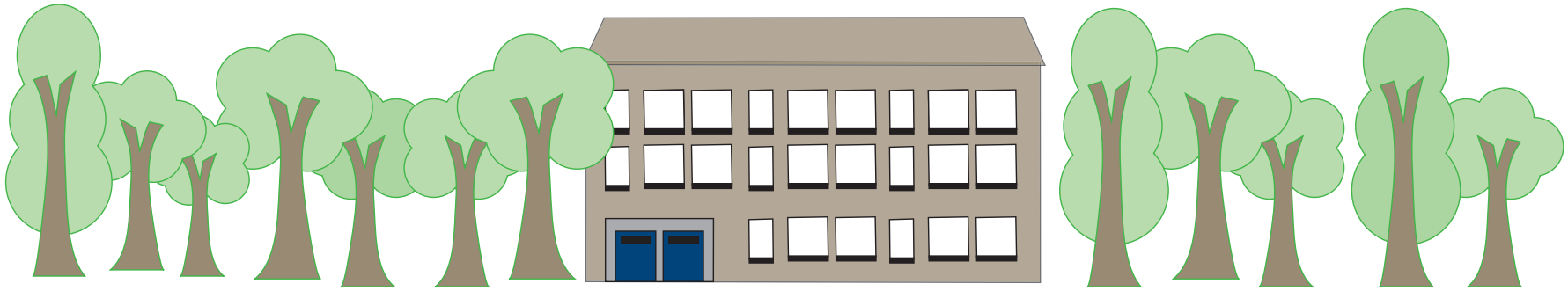
Learning Connections

- **Geography** – geographical enquiry and skills, e.g. using maps.
- **Maths** – number and algebra, e.g. using multiplication instead of addition; shape, space and measures, e.g. calculating angles.
- **English** – reading, e.g. using letters instead of numbers; writing, e.g. using collected words as the basis for a poem or story.
- **Modern foreign language:** – e.g. identifying foreign words to match English words on the cones.
- **Science** – physical processes, e.g. identifying a process or theme after collecting scientific facts.
- **History** - e.g. collecting events and arranging them into a timeline.
- **ICT** - e.g. allowing the children to design the maps and set out the cones accordingly. and markers.

Adaptations using the STEP framework

S SPACE	Use multiple courts; spread the cones over a larger site, e.g. football pitch.
T TASK	Allow the children to record the numbers as they work; see who completes the task in the quickest time.
E EQUIPMENT	Colour-code the cones/maps so they are easier to follow; increase or decrease the number of cones per map.
P PEOPLE	Children work individually or in pairs; the children design the maps and set out the cones for opposing teams.

15 Sign up



Sign up

Objective: match the correct map symbols to names of features.

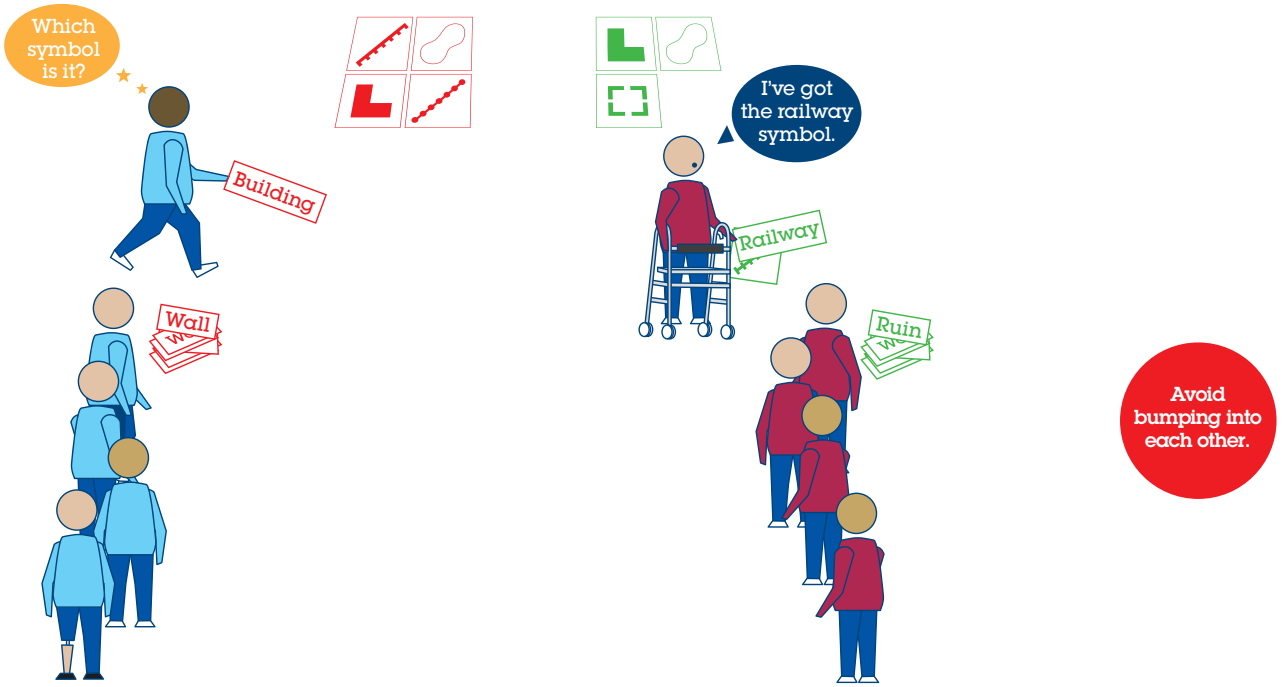
Rules:

- Place the map symbols face-up a short distance away.
- The first person selects the top feature from the pile of name labels.
- Run to the map symbols and select the corresponding symbol.
- Return to the group with the symbol and name.
- The next person selects the next feature.
- Continue until all of the cards are correctly matched.
- If someone selects the wrong symbol, they have to run and replace it.

Equipment: map symbol cards, feature name labels – downloadable PDF D.

Time: see who is quickest to complete the task correctly.

Safety: avoid bumping into each other whilst running or exchanging places.



Sign up

Process	Skill	Example question
Thinking Me		
Plan	Compare	What did you look for when matching labels to signs? How did this help you?
Do	Consider	If you were unsure about a sign, how did you decide which one to choose?
Review	Research	To do even better next time, how would you prepare?
Plan	Communicate	What were the advantages and disadvantages of checking your options with the group?
Do	Take turns	What did you focus on as you were waiting for your turn? How was this helpful, or not?
Review	Praise	How did you praise people when they got it right? What did you say if they were wrong?
Plan	Confident	What effect did you being confident have on your group (and the other groups)?
Do	Manage winning	What does manage winning gracefully look like? Why is this important?
Review	Cope with losing	If your group lost, how would you prepare for the next task/ competition?
Plan	Vision	Why was it important to be observant the whole time and not just for your turn?
Do	Move with agility	What helped you to make an explosive start when it was your turn to go?
Review	Vary speed	How did you take account of people's differing speeds when deciding who went when?

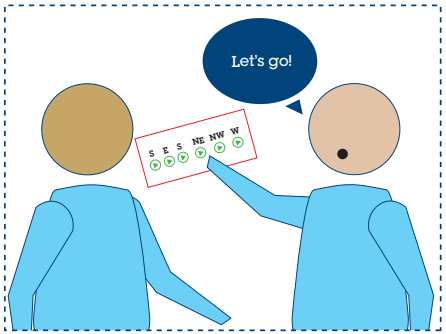
Learning Connections

- **Geography** – geographical enquiry and skills, e.g. using maps.
- **History** – historical enquiry, e.g. using maps as historical sources.
- **ICT** – e.g. designing symbols to represent other features. the scenario as a stimulus for a story.
- **English** – reading, e.g. reading the names of the features or reading map-related stories, e.g. Treasure Island by R.L. Stevenson.
- **Modern Foreign Languages**– e.g. using foreign names for the features.

Adaptations using the STEP framework

S SPACE	Increase or reduce the distance between the sets of cards; travel through a slalom or obstacle course.
T TASK	Place the map symbols face down so it becomes a memory game too.
E EQUIPMENT	Colour-code the symbols and name labels to make it easier at first; match photos to symbols instead of words.
P PEOPLE	Adjust the group sizes to increase or decrease the number of turns per child.

16 Cardinal cones



Cardinal cones

Objective: navigate a course using compass points.

Rules:

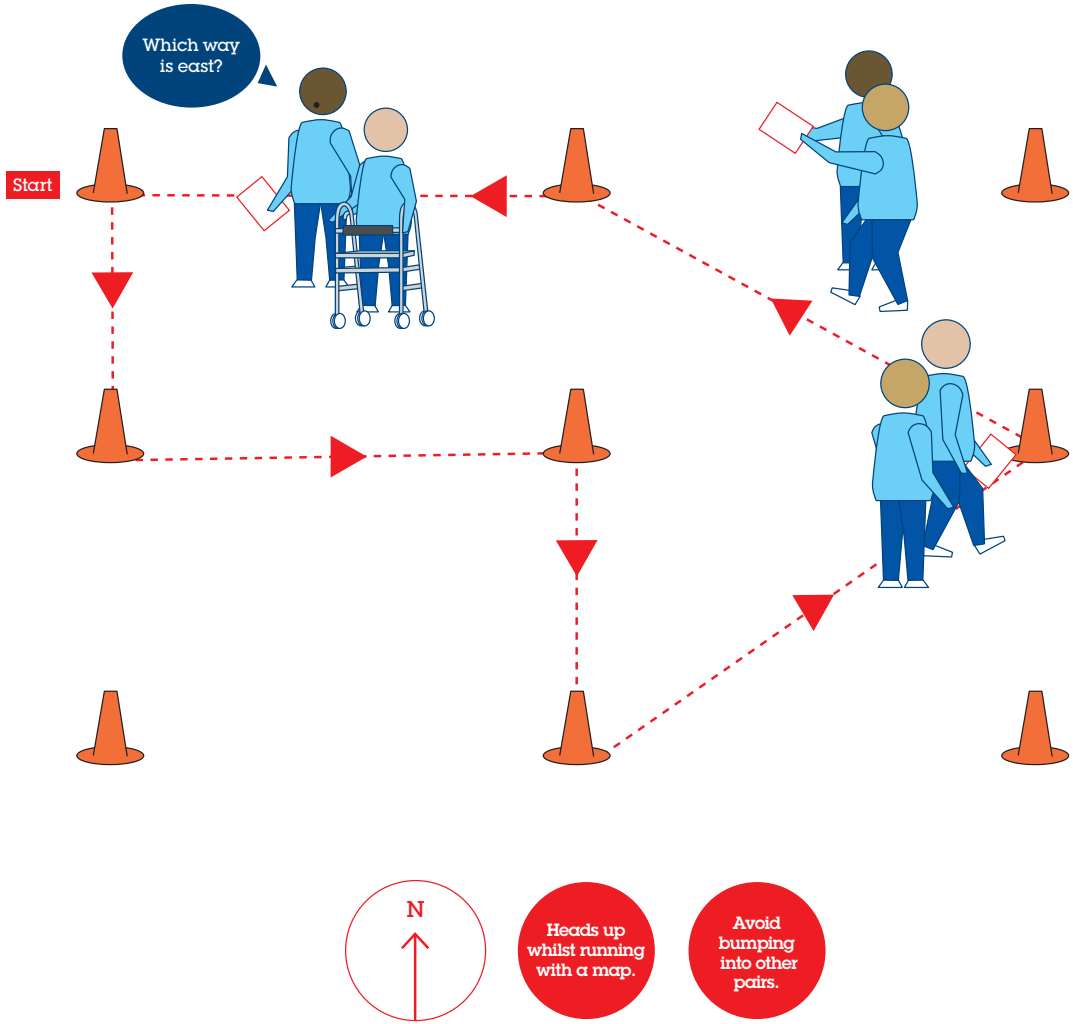
- Select a route card (showing a series of compass points).
- Start at the start cone.
- Follow the direction indicated by the first compass point on the route card.
- At the cone, record the letter on to the control card.
- Follow the second compass point to the next cone.
- Continue until the route card is finished.
- Check the letters against the master card.
- Start again with a different route card.

Equipment:

- Cones set out in a large grid, each marked with a letter (one marked as the start cone).
- Arrow pointing north marked on the ground.
- Series of route cards with varying compass directions – downloadable PDF E.
- Control card and pencil for each pair.

Time: to challenge proficient groups, see who completes the task in the quickest time.

Safety: heads up whilst running with a map; avoid bumping into other pairs.



Cardinal cones

Process	Skill	Example question
Thinking Me		
Plan	Research	How did you know the compass points before starting? Why was it important to know?
Do	Make reasoned decisions	How did you decide which direction to follow each time? What if you disagreed?
Review	Study	How will you make sure you can do this activity again/ better in the future?
Plan	Collaborate	Who made which decisions, and why?
Do	Considerate	How did you show respect for your partner during the activity?
Review	Communicate	To avoid other pairs overhearing you, how else could you communicate with each other?
Plan	Reliable	How did your partner know that you would be a reliable partner?
Do	Confident	Why was it important to have confidence in your decisions?
Review	Persevere	How would you make yourself persevere if you were tempted to give up?
Plan	Work and perform in pairs	What are the advantages and disadvantages of doing this activity in pairs?
Do	Move with agility	How did you avoid colliding with other people and the cones?
Review	Develop stamina	How could you develop your stamina so you do even better next time?

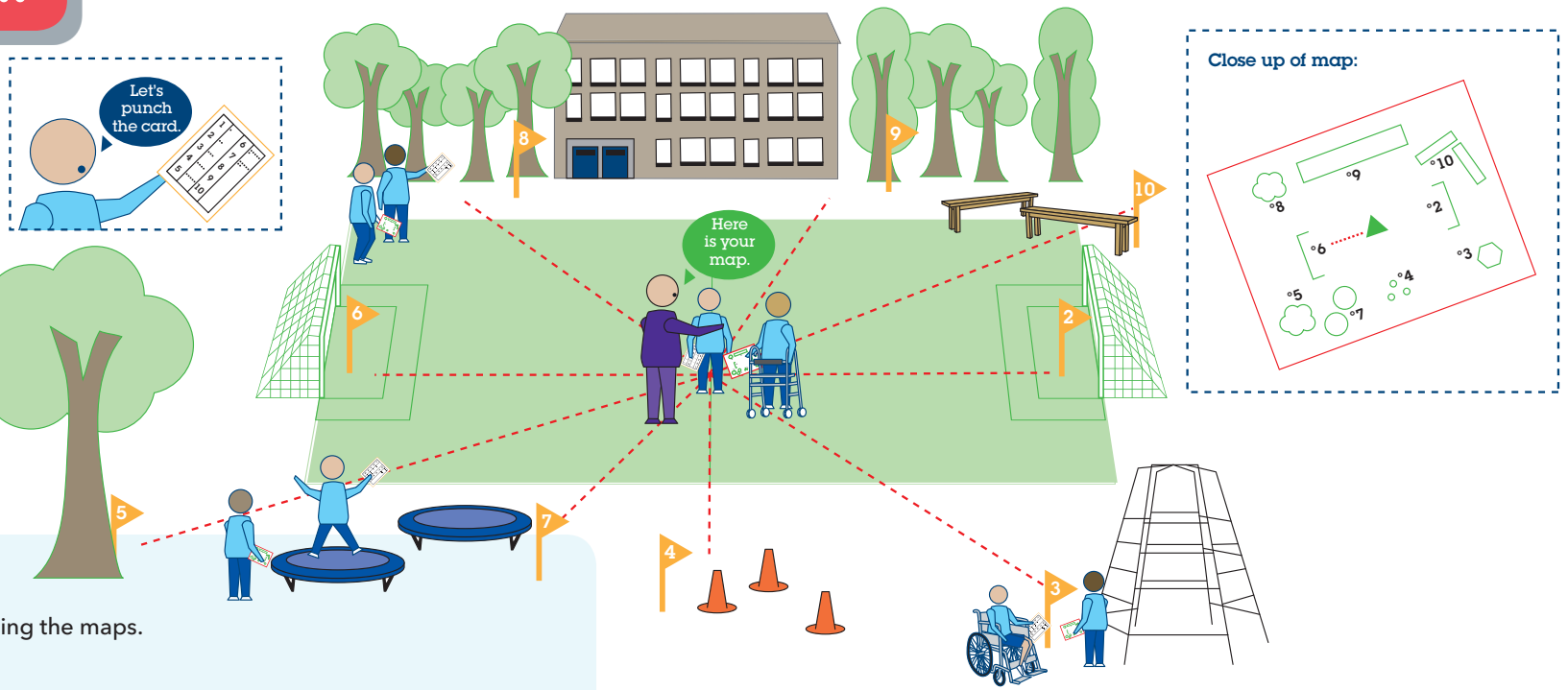
Learning Connections

- **Geography** – geographical enquiry and skills, e.g. using a map.
- **Maths** – shape, space and measures, e.g. using compass points to follow geometric shapes.
- **Art and design** - e.g. creating designs using compass points.
- **English** – reading – stories about navigation, e.g. The Golden Compass by Philip Pullman.
- **History** – Britain and the wider world in Tudor times, e.g. famous navigators and explorers; Vikings, e.g. locating Greenland and North America.

Adaptations using the STEP framework

S SPACE	Mark north (or all of the compass points) on each of the cones; remove the north sign from the ground.
T TASK	Use fewer compass points, e.g. N, S, E, W only; follow a numbered route and use a real compass to note the compass points.
E EQUIPMENT	Reduce or increase the number of cones.
P PEOPLE	Run as a relay: one child does one route then passes to a partner who does the next.

17 Guiding star



Guiding star

Objective: find all of the controls using the maps.

Rules:

- Select a map and a control card.
- Set the map by moving it to match the area (Δ marks the start).
- Visit the control indicated by the dotted line on the map and/or using the symbols.
- Run to the control marker and punch the control card.
- Return to the start, select another map and repeat.
- Continue until all of the control markers have been visited.

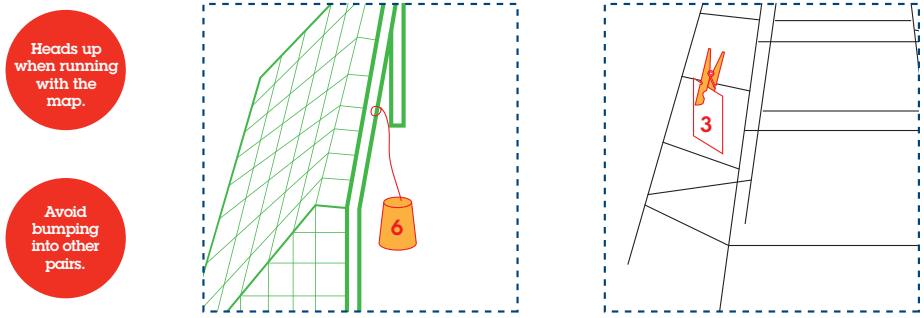
Equipment:

- Control cards for each child – downloadable PDF E.
- Control markers (punches) at each control (or use numbered handmade control points).
- A series of simple maps of the school site, marked with key symbols.

Time: to challenge proficient groups, see who completes the task in the quickest time.

Safety: heads up whilst running with a map; avoid bumping into other pairs; make sure the children are aware of the boundaries.

*Extension activity – Geocaching – *downloadable PDF G.*



Guiding star

Thinking Me		
Plan	Plan	How did you prioritise which controls to head to (when working with a map of them all)?
Do	Make reasoned decisions	Why did it help to have clear reasons when deciding where each control was?
Review	Explore	Why is it important to explore options instead of always choosing the obvious route?
Social Me		
Plan	Negotiate	How did you agree who should be responsible for what?
Do	Motivate	What motivated you most: being the winner, being accurate or exploring options? Why?
Review	Collaborate	Why is it sometimes an advantage to collaborate with your competitors?
Healthy Me		
Plan	Responsible	How did you show you were responsible enough to take part in this activity safely?
Do	Committed	Why did you stay committed to the task, even though you were out of sight at times?
Review	Work safely	What would you have done if someone had had an accident out of sight of the teacher?
Physical Me		
Plan	Vary speed	Why was it helpful to plan when you should go faster or slower?
Do	Develop stamina	When did you start to get tired? How did you work through this to finish?
Review	Vision	How could you improve your awareness of what is around you? Why is this valuable?

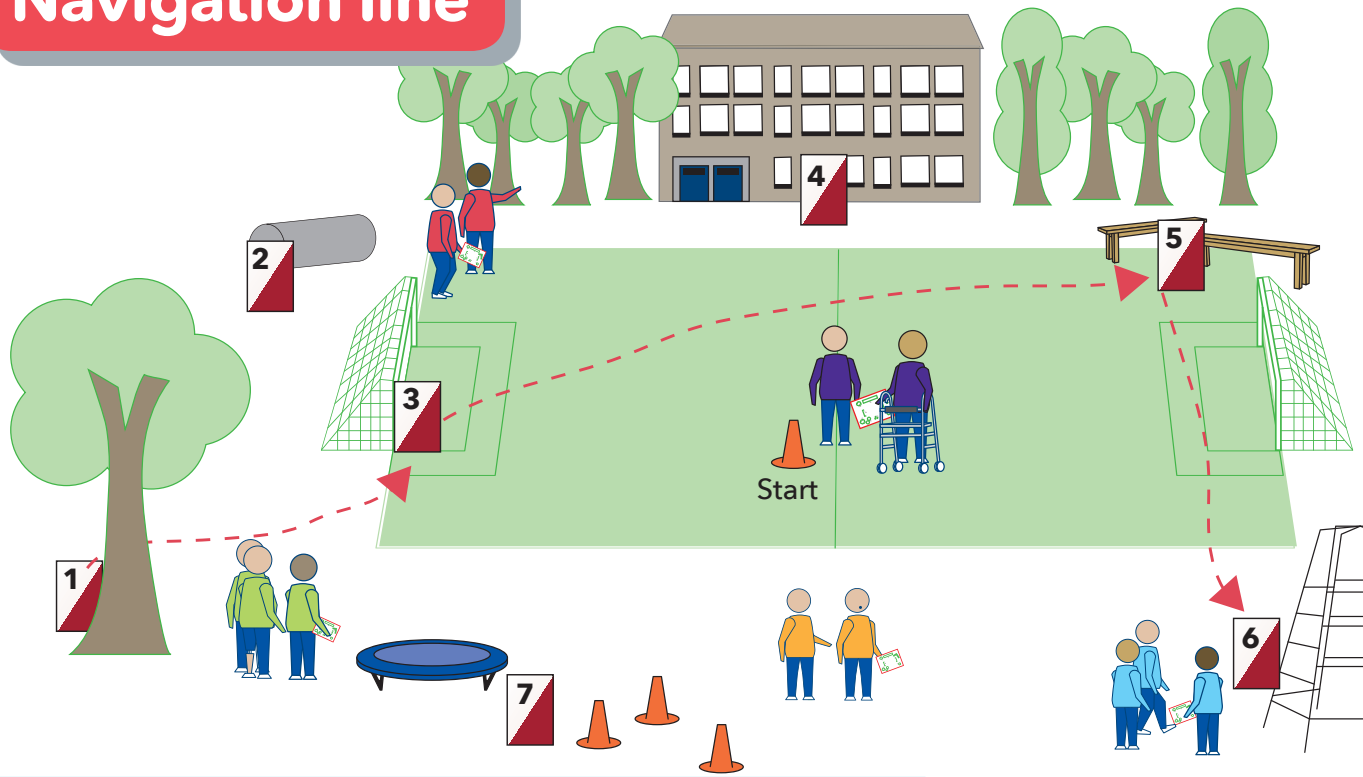
Learning Connections

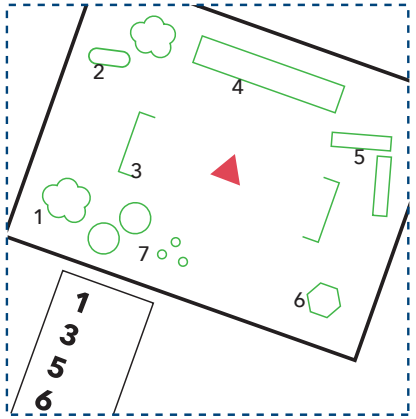
- **Geography** – geographical enquiry and skills, e.g. using a map.
- **Maths** – shape, space and measures, e.g. using geometric shapes as symbols.
- **Design and technology** – communicating designs in different ways, e.g. using and creating plans.
- **English** – reading, e.g. factual accounts of explorers, e.g. Into the Unknown by Stuart Ross; writing, e.g. using navigation activities as a stimulus for writing about exploration.
- **Science** – physical processes, e.g. using the star activity as a stimulus for studying the universe.
- **History** – European or world history, e.g. how Ancient Greek and Egyptian astronomers influenced science and maths.

Adaptations using the STEP framework

S SPACE	Use the whole of the school grounds with controls that are out of sight of the start point.
T TASK	Locate controls spread around the grounds and mark their positions on a blank map.
E EQUIPMENT	Remove the dotted lines from the maps so the children use the symbols to identify the locations of each control.
P PEOPLE	Work individually or in pairs; run a competition between groups, with group members organising who collects each control.

18 Navigation line





Avoid bumping into other children

Heads up when running with the map

Navigation line

Objective:

- Set out a control with accuracy.
- Plan an efficient route from the course description sheet.

Rules:

- Each child/pair is given a map and control.
- Run to the number given on the map and place the control. Return to the start.
- Select a course description card and plan the way to run the course from the sheet.
- Visit the controls on your sheet and record or punch your control card.
- Return and select another course description card.

Equipment:

- Map of the school site marked with a number of control sites.
- Control card for each child.
- A series of course description cards.

Time: to challenge proficient groups, see who completes the course description cards in the quickest time.

Safety: heads up whilst running with a map; avoid bumping into each other; make sure children are aware of the boundaries.

Navigation line

Process	Skill	Example question
Thinking Me		
Plan	Plan	How did you prioritise which control to head to first?
Do	Apply Knowledge	How did you know where you were on the course at all times?
Review	Compare	When you reached the control how did you know it was the right one?
Social Me		
Plan	Collaborate	Why is it important to collaborate and not let your partner make all the decisions?
Do	Motivate	What motivated you most: winning or being accurate? Why?
Review	Play Fair	How would it make others feel if you moved the controls to a different place?
Healthy Me		
Plan	Confident	How confident where you with your decisions?
Do	Persevere	How did you respond if you made a mistake when putting a control out?
Review	Determined	What do you need to do if you are determined to improve your time?
Physical Me		
Plan	Perform in pairs	What are the advantages and disadvantages of doing this in pairs?
Do	Move with agility	How did you avoid other people on the course?
Review	Develop stamina	Why is stamina important?

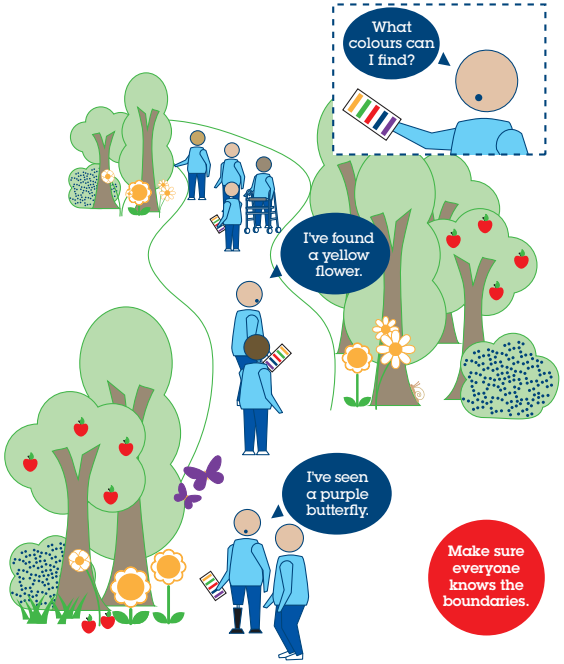
Learning Connections

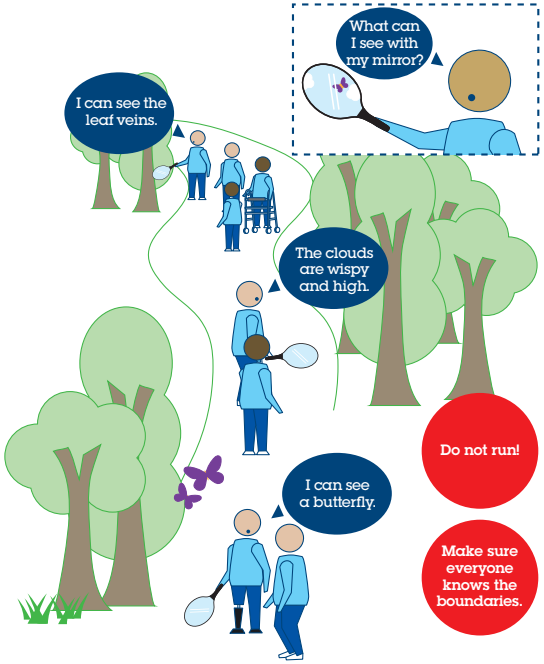
- **Geography** – geographical enquiry and skills, e.g. using a map.
- **Maths** – shape, space and measures e.g. use the map with controls onto create geometric shapes.
- **English** – reading, non-fiction e.g. Ultimate Guide to Mapping by Justin Miles
- **ICT** - e.g. allowing children to design maps for younger children and set the cones out accurately.
- **History** – local history, e.g. how local maps have changed over time.

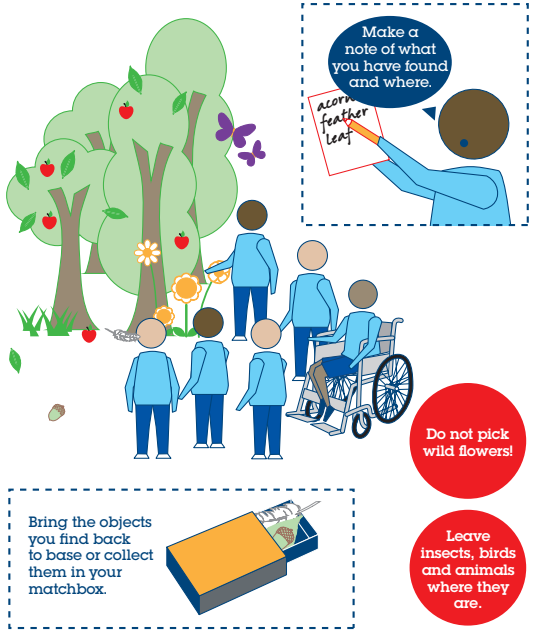
Adaptations using the STEP framework

S SPACE	Use the whole of the school grounds with controls that are out of sight at the start point.
T TASK	Each child/pair puts out one control, marked on the map. Return to start and exchange maps and check that the control is in the right place.
E EQUIPMENT	Reduce or increase the number of control points. Have a number of different length course description cards.
P PEOPLE	Work individually or in pairs. With a partner of a similar running ability, run the same course but "A" runs round clockwise, "B" goes round anti clockwise. Set off at the same time, winner is the first to return.

19 Rainbow chips • Skywalk • Scavenger hunt







Rainbow chips

Objective: match natural objects to the colour chart to see how varied the natural world is.

Rules: find and note objects in a natural environment that match as closely as possible a given colour or colours; do not pick wild flowers or interfere with living creatures or their habitats, e.g. nests, eggs.

Equipment: paint manufacturer colour charts (individual strips are better than booklets); notebook and pencil.

Time: set a clear time limit so the children know when to return.

Safety: make sure the children know the boundaries; wear appropriate footwear for the terrain.

Skywalk

Objective: observe the natural world from a different perspective.

Rules: walk through the landscape whilst looking in a small mirror; make a mental note of how things look from a different angle.

Equipment: a small hand mirror for each child.

Safety: make sure the children know the boundaries; wear appropriate footwear for the terrain; be aware of the path and other hazards; do not run.

Scavenger hunt

Objective: find the objects on the list.

Rules: collect or note the objects as instructed; these may be specific, e.g. an oak leaf, or open to interpretation, e.g. contains chlorophyll; do not pick wild flowers or collect living creatures or their eggs.

Equipment: checklist and pencil or empty matchbox or carrier bag per child/pair.

Time: set a time limit or see who is quickest to find all of the listed objects.

Safety: make sure the children know the boundaries; wear appropriate footwear for the terrain; be aware of general hazards.

Rainbow chips • Skywalk • Scavenger hunt

Process	Skill	Example question
Thinking Me		
Plan	Question	What sorts of questions were useful to ask yourself/the teacher before starting?
Do	Examine	Why was it important to examine things closely?
Review	Compare	How accurate were you when matching or describing objects? Why does this matter?
Social Me		
Plan	Patience	Why was it necessary to have patience during this activity?
Do	Integrity	To what extent were you honest about your findings? How did this make you feel?
Review	Co-operate	How could people to work together on these tasks instead of working on their own?
Healthy Me		
Plan	Work safely	What did you have to watch out for as you were working?
Do	Positivity	If you got frustrated during the task, how did you maintain a positive attitude?
Review	Persevere	What additional challenges could you set yourself to help you to persevere with the task?
Physical Me		
Plan	Move with agility	What factors influenced how you moved?
Do	Use space in different ways	In what ways did you use the space? Why was using a variety of ways useful?
Review	Vision	What are the benefits of looking at things from a different perspective?

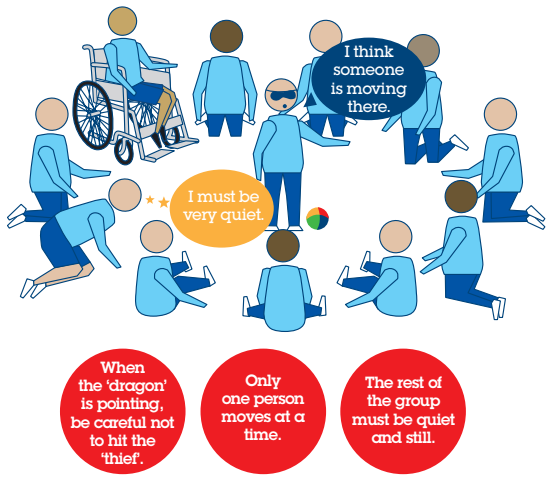
Learning Connections

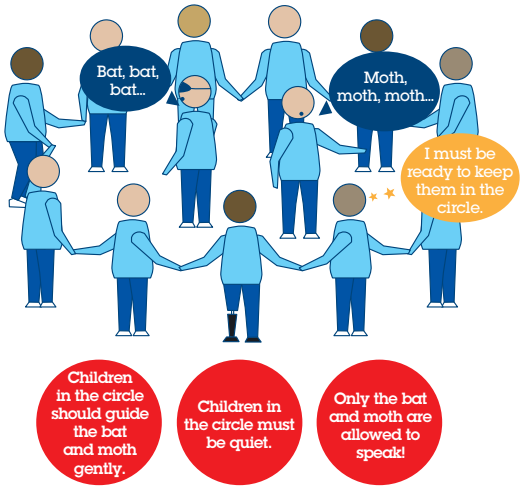
- **Art and design** – e.g. using natural objects and different perspectives as stimuli for practical work.
- **English** – e.g. using natural objects and different perspectives as stimuli for writing poems; reading – researching wildlife.
- **Science** – life processes and living things.
- **ICT** – e.g. using digital photos to record objects.
- **Maths** – shape, space and measures, e.g. plotting finds on a plan; recognising patterns or geometric shapes in the natural world.

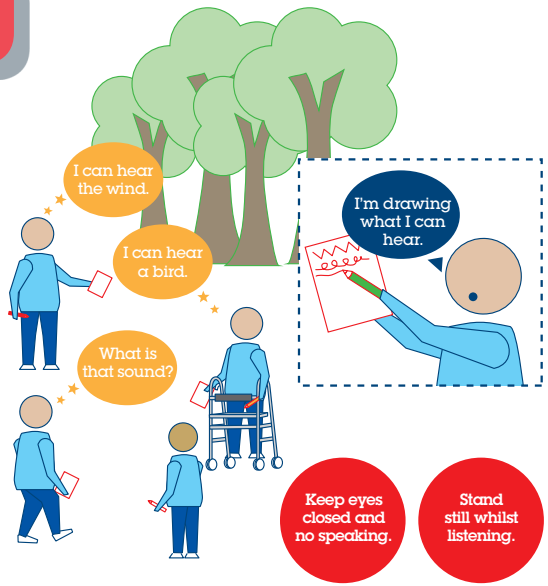
Adaptations using the STEP framework

	All aboard	Hoopla	Line
S **SPACE**	Explore spaces that are on or off the school site.	Explore different environments, e.g. open grassland, deciduous woodland, coniferous forest, in different weather.	Explore different environments on or off the school site.
T **TASK**	Match one colour to an object and return to base for a different colour.	Instead of walking, choose one spot and stand still for five minutes, moving the mirror to catch different perspectives.	Tick off a given list of objects; collect objects in a matchbox or carrier bag; bring one object back at a time before seeking the next.
E **EQUIPMENT**	Give each pair a digital camera/mobile phone camera to photograph the objects.	Use mirrors of different shapes, sizes and magnification; observe reflections in different materials, e.g. burnished metal, water.	Use a camera to photograph the objects or draw the objects instead of ticking/ collecting them.
P **PEOPLE**	Take part individually, in pairs or in small groups (with shades of one colour per group).	Work in pairs, one with a mirror and one without, swapping at intervals.	Work individually, in pairs or in groups.

20 Dragon's egg • Bat and moth • Surround sound







Dragon's egg

Objective: steal the dragon's egg without being caught by the dragon.

Rules:

- Sit in a large circle around the blindfolded dragon.
- As quietly as possible, creep up to the dragon to steal its egg and return to the circle.
- Only one person moves at a time; the rest of the group must be quiet and still.
- The dragon points towards the source of any noise.
- if the dragon points correctly, the 'thief' must return to the circle without the egg.
- If the dragon is incorrect, the 'thief' may continue; a successful 'thief' becomes the dragon.

Equipment: blindfold, jingle ball (or similar noisy piece of equipment).

Time: if necessary, limit the number of goes per dragon.

Safety: when the dragon is pointing, be careful not to hit the 'thief'.

Bat and moth

Objective: use a form of echolocation to capture and eat a moth.

Rules:

- Stand in a large circle.
- The blindfolded bat and the sighted moth move within the circle.
- The bat has to locate the moth by calling 'bat'.
- Every time the bat calls, the moth has to reply 'moth'.
- The bat uses the sound to try to tag (eat) the moth.
- The children in the circle prevent the bat and moth from wandering outside the area.

Equipment: a blindfold.

Time: if necessary, limit the time the bat has to catch the moth.

Safety: stress the need for quiet, stealthy movement rather than violent lunges; the children in the circle should guide the bat and moth gently.

Surround sound

Objective: identify and draw as many different sounds as possible.

Rules: keep eyes closed; no speaking; draw what each sound 'looks' like.

Equipment: notepad and pencil per child.
Time: if necessary, limit the number of goes per dragon.
Safety: stand still whilst listening.

Dragon's egg • Bat and moth • Surround sound

Process	Skill	Example question
Thinking Me		
Plan	Predict	What helped you to predict where people were going/ what people were doing?
Do	Analyse	How did you analyse what you were hearing?
Review	Create	Why was it important to use your imagination as well as your ears?
Social Me		
Plan	Listen	What did you need to do to listen properly and be successful?
Do	Respect	Why did you need to be quiet and respectful when it was another person's turn?
Review	Play fair	What do others think of you and how do they treat you if you cheat?
Healthy Me		
Plan	Self-control	What is self-discipline? Why did you need to be self-disciplined during the activity?
Do	Committed	Why was it important not to give up too easily?
Review	Appreciate that everyone is different	How did other people approach the task? What did you learn from them?
Physical Me		
Plan	Vary weight of actions	What factors influenced how strongly you lunged, weaved or ducked?
Do	Use space in different ways	How did you cross the space? What effect did this have?
Review	Vary flow of movement	How did your body control the flow of your movements? What did it have to do?

Learning Connections

- **English** – writing, e.g. using natural sounds as stimuli for writing poems; reading – stories about dragons, e.g. Harry Potter and the Goblet of Fire by J.K. Rowling, The Hobbit by J.R.R. Tolkien, The Voyage of the Dawn Treader by C.S. Lewis.
- **Music**- e.g. using natural sounds as stimuli for practical work.
- **ICT** - e.g. recording and replicating sounds using digital media.
- **Art and design** – e.g. using the 'shapes' of sounds as stimuli for practical work.
- **Science** – life processes and living things.

Adaptations using the STEP framework

	All aboard	Hoopla	Line
S **SPACE**	Increase or decrease the size of the circle.	Increase or decrease the size of the circle.	Play indoors or outdoors, on or off the school site.
T **TASK**	Just steal the egg without needing to return to the circle.	Play without the blindfold, where the bat may only move when the moth responds.	List or mentally note the sounds instead of drawing them.
E **EQUIPMENT**	Have more than one egg; put the egg in front of the dragon instead of behind it.	Blindfold the moth too.	Capture the sounds using digital recorders.
P **PEOPLE**	Allow more than one 'thief' to move at once.	Have two moths in the circle; both must respond to the bat's call.	Work in pairs, one person notes the sounds that the other has heard.

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All of the TOP Challenge activities can take place on a typical school site. However, you may wish to consider extending the children's learning – and simplifying some of the activity set-up – by further developing your school grounds.

There are six key areas you may wish to consider. Make sure you involve the children in designing and managing the space and equipment, and plan to include children with special needs.

1. Obstacle courses

An obstacle course is simply a combination of fixed equipment pieces that present the children with different challenges, usually at varying heights. For example, a course might include a balance beam, stepping posts, a rope bridge, monkey bars, a scramble net and a mini-zip wire. Obstacle courses are also known as ropes courses or trim trails; they may be linear or circular. They are manufactured and installed by a wide range of suppliers, most of whom will design the course to meet your needs. The equipment may be of artificial materials and brightly coloured or may be of a more traditional wood and rope construction.

2. Traversing wall

Traversing – or bouldering – walls are climbing walls where the children move horizontally rather than vertically. Therefore, they do not need to be roped-up. Holds come in a variety of shapes, colours and sizes and may be fixed to existing school walls. Alternatively, the traversing wall might be a separate, fixed or freestanding structure. Many of these have moveable holds so the routes can be changed. They are designed and installed by a variety of commercial suppliers, both those who specialise in climbing walls and those who specialise in playground development.

3. Problem-solving equipment

Some problem-solving activities use equipment that could be available permanently as fixed structures in the school grounds. These can be hand-made (calling on staff, parents' or community partners' skills) or bought from commercial providers. They include structures for activities such as Spider's web and Electric fence, featured on the TOP Challenge cards, and additional challenges such as balance beams (for Line up), see saws (where the children work as a group to counter-balance beams on off-centre pivots), the wall (where the children overcome a vertical barrier) and tyre and pole (where the children work together to lift a tyre on or off a vertical pole). They also include non-fixed items such as skis (where the children work as a group to travel on wooden 'skis').

4. Playground markings

In addition to the usual playground markings, consider marking out some of the teamwork tasks, such as Stepping stones, or compass points, map symbols and Cardinal cones for navigation activities.

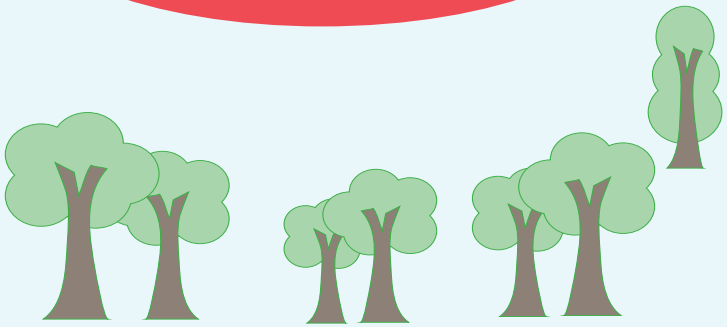
5. Orienteering maps

Consider having a professional map made of your school site. This will be useful for curriculum areas such as geography, science and maths as well as navigation activities. Maps may be black and white (cheaper to photocopy) or colour (easier to use) and are usually produced using computerised cartography. Some local authorities provide this service or you could link to a local orienteering club. Contact the British Orienteering Federation for more information: www.britishorienteering.org.uk/page/schools_mapping

6. Wildlife garden

Whilst TOP Challenge can be delivered in urban settings, we want to encourage children to explore and be confident in the natural world too. Consider developing a wildlife garden within the school grounds. This could include woodland, meadow and pond habitats on larger sites or small-scale habitats, such as bird tables, bat boxes, bog gardens, log piles and compost heaps, on restricted sites. Even schools without green spaces can create bird- and insect-friendly habitats in raised beds, planters and pots. For advice on creating wildlife gardens visit: www.ecofriendlykids.co.uk/setting-up-wildlife-area-school.html

Further guidance on school grounds development can be found at Learning through Landscapes, a UK-wide charity: www.ltl.org.uk



Creating an outdoor classroom

TOP Challenge has been designed so that primary school teachers can organise the activities on or off the school site without any specialist training or qualifications. However, we hope that TOP Challenge will be one step on a progressive pathway that leads children to other challenging and adventurous outdoor activities. These activities could be provided in or out of the curriculum, by school staff with additional experience, training or qualifications, or by external staff and agencies, such as qualified coaches or outdoor activity centres. These are some of the organisations that can support schools to extend children's participation and learning.

Outdoor learning generally

- Contact your relevant local or national government education department for formal guidance on health and safety relating to outdoor and adventurous activities.
- The Royal Society for the Prevention of Accidents (RoSPA) provides general guidance for schools on organising school trips and adventurous activities.
  www.rospa.com/safetyeducation/adviceandinformation/health-and-safety-at-school/schooltrips/out-and-about.aspx
- Outdoor Education Advisers' Panel (OEAP) offers advice and support to enable and encourage outdoor learning. It provides links to other UK-wide or national agencies involved in outdoor and adventure learning. The OEAP has also developed the 'Outdoor Learning Cards' and a training module for teachers which build on TOP Challenge.
  www.oeap.info
- Adventure Activities Licensing Authority helps schools to find licensed activity providers.
  www.aals.org.uk/aals/provider_search.php

Activity-specific learning

- British Canoe Union (BCU) has a number of programmes that support children's participation.
  www.bcu.org.uk
- British Cycling offers help to schools to set up Go Ride clubs and provides information on mountain biking.
  www.britishcycling.org.uk
- British Mountaineering Council (BMC) offers practical advice to help involve children in climbing, hill-walking and mountaineering.
  www.thebmc.co.uk
- National Indoor Climbing Award Scheme (NICAS) is a UK-wide scheme designed to promote climbing development and accredit individual achievement on artificial climbing structures. It can be used as a starting point for people wishing to take up climbing and mountaineering. It is open to all candidates aged 7 and upwards.
  www.nicas.co.uk
- British Orienteering Federation (BOF) links schools to local clubs and events.
  www.britishorienteering.org.uk
  The International Orienteering Federation provides guidance on Trail O, a specific orienteering discipline for disabled people.
  www.trailo.org
- British Rowing supports schools to set up rowing clubs or make links to community clubs.
  www.britishrowing.org
- Royal Yachting Association (RYA) supports children to get involved in water sports such as sailing, windsurfing and power boating.
  www.rya.org.uk

Places to play and explore the natural environment

In each of the home countries a variety of agencies can advise schools on finding places to explore or play. Here is a small sample:

- England: Play England, Natural England, Walking for Health.
- Scotland: Play Scotland, Scottish Natural Heritage, Paths for All.
- Wales: Play Wales, Countryside Council for Wales, Let's Walk Cymru.
- Northern Ireland: Playboard Northern Ireland, Department of the Environment NI, Walk NI.