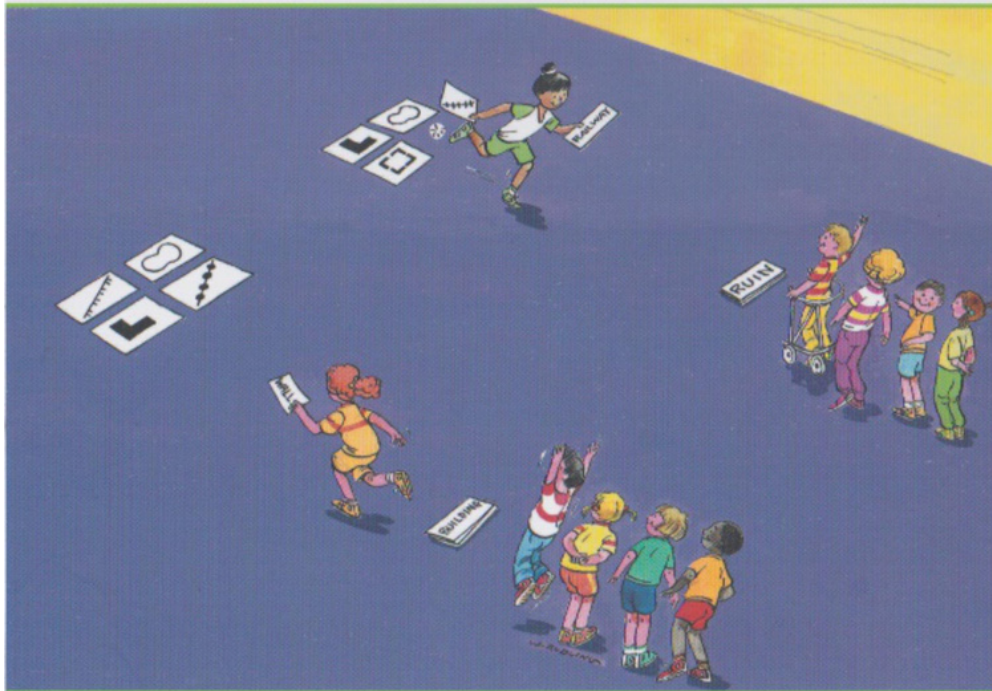


# SUPPORTING SCHOOLS TO TAKE LEARNING OUTSIDE THE CLASSROOM ACTIVITY CARDS







#### Activity

**Aim:** To learn the symbols used on an orienteering map.

- Put a set of cards with symbol names on one side of a playground/court in a pile face down.
- The set with the symbols is spread out on the other side face up.
- If running as a relay, split into teams. Each team should have a set of cards.
- The first runner in each team stands by the pile of cards with the names on and at a signal picks up the top card.
- Run across the playground and pick up the card with the correct symbol that matches the name on the card.
- Run back to the start with both cards.
- The second runner picks up the next card and repeats the exercise.
- Continue until the cards are all matched up.

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#### Safety Points

- Be careful not to run into other people.
- Be careful if the ground is wet, slippery or uneven.

#### Organisation & Resources

- This activity is suitable for small groups or a whole class.

#### Preparation

- The cards should be put out as explained for the activity.
- If using the field or playground, it is a good idea to laminate the cards.
- Young people should be familiar with the symbols.
- Have no more than 10 in a group.

#### Skills & Knowledge

- Young people need to listen carefully to instructions.
- This exercise supports the development of mapreading. It requires young people to memorise and retain information.

#### Review & Evaluation

- Was each card correctly matched?
- Did you remember all the symbols?
- Could you do the exercise the reverse way?

#### Equipment


- One set of cards is required for each team.
- The number of cards should be between 10-20, depending on the age of the group and whether you are using symbols of features that will be found off site (see CD).
- Half the set is made up of map symbols and half with the corresponding symbol names.

#### Differentiation & Progression

- Increase the number in the team.
- Shorten the running distance.
- Decrease the number in a team, which means each person has to run more times.
- Do the activity individually.
- Increase the running distance.

#### Similar activities:

Use jigsaw maps instead of cards. The pieces are put on one side of playground and a base card (the same size as the finished jigsaw) on the other side. Runners carry one piece at a time to make up the jigsaw. This can also be run as a relay.

 Material on the CD

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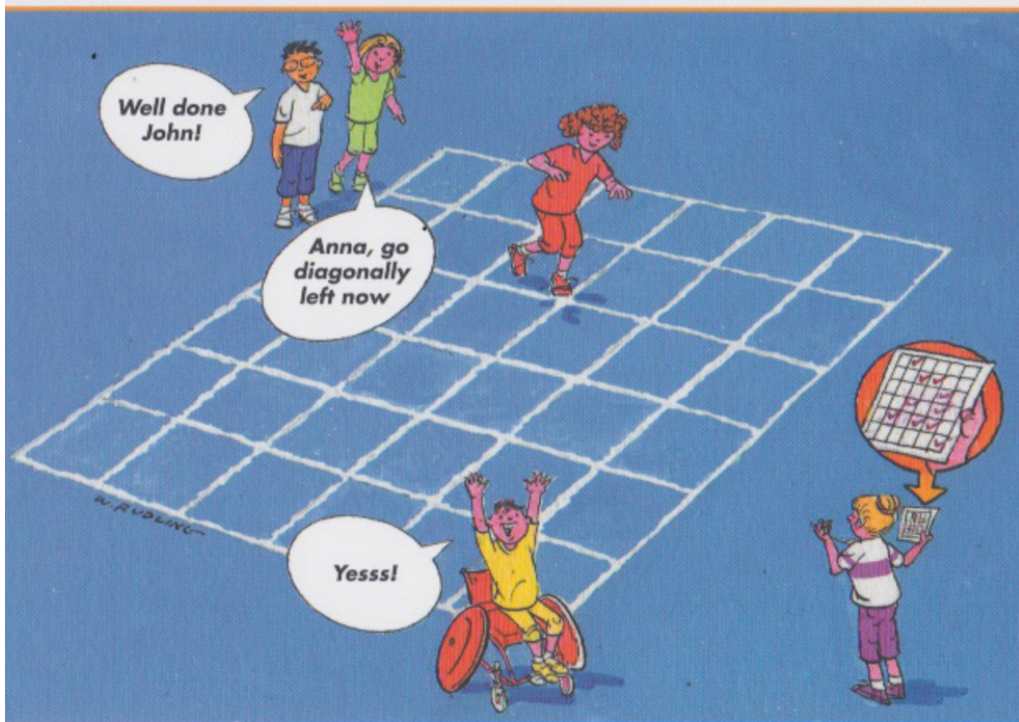


# OUTDOOR LEARNING CARDS



## TEAMBUILDING TB9

### AMAZING MAZE



#### Activity

**Aim:** To work out the 'safe' path (by trial and error) through the maze and get the whole team across.

**Description:** Each member of the team must successfully navigate the maze without standing on the 'booby-trapped' squares, if they do then they are informed by the maze 'gatekeeper/guardian', and must return to the start, going to the back of the queue.

Only one team member may attempt to cross the maze at a time. Attempts to cross should be from a different person each time until everyone has had a go. It is then the turn of the first person to go again and so on until someone makes it!

#### Review & Evaluation

- Did the group identify people to remember the 'safe' path through?
- How could the group have made the task simpler?

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# OUTDOOR LEARNING CARDS



## TEAMBUILDING TB9

### AMAZING MAZE

#### Safety Points

- Take care if stepping over string and tent pegs.
- Take care if using carpet tiles on a slippery floor.

#### Equipment

There are various ways in which the 'maze' can be created:

- Carpet tiles
- String and tent pegs
- Chalk
- Cones

The maze can be any dimension depending on the size/ability of your group, e.g. 6 x 6 squares. Larger mazes have more path options and are, therefore harder to complete.

- Encourage the group to talk to each other.
- Remind the group that everyone must work together.
- Prompt the group to remember where the dangerous squares are as well as the safe ones!

#### Organisation

Group sizes may vary, but 6 – 8 keeps more people involved.

The leader or a peer can act as the 'Maze Guardian' with a map of the maze (grid) marked out on a piece of paper with the 'safe' route through identified. The Guardian can either call out or use another signal (e.g. a whistle) to indicate when a participant steps on an 'unsafe' square. At which point the team member must return to the start and join the end of the queue of fellow team members.

- The whole team must cross the maze from start to finish.
- Only 1 person can be in the maze at a time.
- There is one safe path across, which the group needs to work out. This safe path will have already been mapped out by the 'Maze Guardian'.
- Team members may only move 1 square at a time, and can move forwards, backwards, sideways and diagonally.
- Some squares are 'safe'; all the others are 'dangerous' and if stepped on will immediately send you back to the start.
- Any members sent back to the start line must join the end of the queue.
- Once the safe path is determined, the whole team must follow. However they must also keep to the safe path or return to the start.

#### Differentiation & Progression

- Make the maze larger or smaller.
- This game can be timed to add an element of competition.
- No verbal communication between team members.

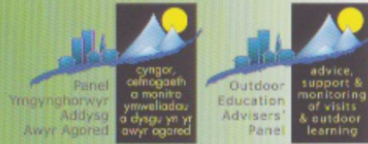
#### Skills & Knowledge

- Listen to others and instructions.
- Propose practical ways forward.
- Encourage participants to treat other team members with tolerance and respect.
- Try a variety of solutions.
- Ask questions.
- Review and apply lessons learned.

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# ENVIRONMENTAL LEARNING CARDS



## EXPLORE & UNDERSTAND

### MINI-BEAST HUNT EU8



### ACTIVITY

#### Objective and outcomes:

- To be aware of the variety of invertebrates (biodiversity)
- To understand their requirements to live
- To conduct a scientific survey
- To explore appropriate methods of presenting results

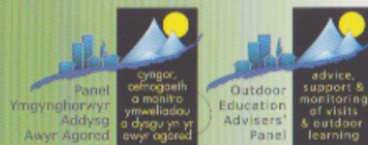
#### Outline:

- Split into groups of three or four
- Collect mini-beasts and separate into different pots:
  - For **Tree/hedge** survey gently shake branches and collect insects using white trays held underneath
  - For **Ground** survey move leaf litter, stones, dead wood etc. Use spoon and soft paintbrush to collect mini-beasts.
  - For **Soil** survey remove vegetation then collect soil sample and gently shake through sieve into white tray
  - For **Grass** survey use a sweep net to collect insects. Empty carefully into white tray
  - For **Pond** survey use nets to collect creatures and empty content into white buckets
- Use identification charts to identify insects collected
- Record results for different habitats – variety and numbers of insects found
- Take photos or make drawings to record the habitats

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SEE RESOURCE SHEET IN HANDBOOK

# ENVIRONMENTAL LEARNING CARDS



## EXPLORE & UNDERSTAND

### MINI-BEAST HUNT EU8



### DIFFERENTIATION & PROGRESSION

- ID sheets can be more or less detailed (scientific) according to ability of group
- Use quadrats or hoop hoops to mark out an area to be sampled within the different habitats
- Create models of the habitats and/or insects (see Mini-beast Models card CS 19)
- Role-play debate about the 'habitat destruction', e.g. building a housing estate on a wooded area. Students take on various roles of owner, local authority, conservationists
- Habitat creation/conservation work (see Insect Hotels card, CS 20)
- Visit the OPAL website, see references, and submit the results of your survey as part of a national recording programme

### LEADER'S NOTES

#### Preparation

- Decide on habitats to use
- Prepare collecting and recording materials (including copies of 'Mini-beast Recording' resource sheet)

#### Resources

- White trays, jars, plastic cups, sweep nets, paintbrushes and spoons
- Recording sheets, ID charts and clip boards

#### References

[www.enviroaction.co.uk](http://www.enviroaction.co.uk)  
[www.field-studies-council.org/publications](http://www.field-studies-council.org/publications)  
<http://www.opalexplornature.org/>

### REVIEW & EVALUATION

- Present results using a variety of graphical techniques, e.g. bar charts or chloropleth maps
- Create a display linking habitat and survey information
- Topics for discussion:
  - Which habitat had the greatest variety of insects? Why?
  - Which habitat had the greatest number of insects? Why?
  - What difficulties did you experience in conducting this survey?
  - How could we improve it?
  - Which were the most effective methods for displaying the results? How else could they be displayed?





# ENVIRONMENTAL LEARNING CARDS



CREATE & SHARE

MINI-BEAST MODELS CS19



## ACTIVITY

### Objective and outcomes:

- Sensory exploration and gathering of natural materials
- Creative decision-making
- Close observation of insects
- Storytelling and self-expression

### Outline:

- Spend 10 minutes exploring the venue individually or in small groups – who might live here, where might they live?
- Collect a few examples of mini-beasts and discuss
- Make mini-beast models – real or imaginary. For example, use clay or modelling clay as a base and mould your own beast with the addition of natural materials found in the local area. Why not create a mini-beast costume? See picture overleaf

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# ENVIRONMENTAL LEARNING CARDS



CREATE & SHARE

MINI-BEAST MODELS CS19

## ROLE PLAYING BEES



## LEADER'S NOTES

### Preparation

- Choose suitable venue
- Prepare an example of a mini-beast model
- Collect model-making materials
- Decide on focus of activity (scientific / creative / both)
- Decide whether models will be recycled or not.

### Resources

- Sampling containers (plastic cups, pooters), hand lenses, mini-beast keys
- Materials for making models (clay, plasticine, natural materials, playdoh, bread dough, paint, string)

### References

[www.lowther.cumbria.sch.uk/index.php?category\\_id=161](http://www.lowther.cumbria.sch.uk/index.php?category_id=161)  
[www.fieldstudies-council.org/publications/foldout.aspx](http://www.fieldstudies-council.org/publications/foldout.aspx)

## DIFFERENTIATION & PROGRESSION

- Use of mini-beast keys
- Research on mini-beasts, food webs, adaptations, habitats and threats to their survival
- Create a habitat for mini-beasts e.g. brush piles, dead wood or ponds
- Further model-making activities e.g. 'tree spirits', other animals
- Explore different venues
- Use role-play to create stories or to investigate scientific issues such as destruction of habitat
- Indoor/outdoor baking of mini-beast bread

## REVIEW & EVALUATION

- Hold a 'Mini-beast ball' where each model is introduced to each other
- Introductions will focus on creativity or science according to session objectives
- Group use their bodies to collectively represent a huge mini-beast (head, body, legs, antennae etc)
- Make costumes and create a play about your made up mini-beast, or a real one
- Create a habitat for your imaginary mini-beast, think about it needs to survive





# ENVIRONMENTAL LEARNING CARDS



## AWARENESS & EXPERIENCE

### PLANT DISCOVERY AE3



#### ACTIVITY

##### Objective and outcomes:

- Encourage young people to take a closer look at plants
- To explore these plants in their habitat
- To discover properties and features of plants
- To understand basic ecological concepts such as adaptation, biodiversity and abundance

##### Outline:

- Hand out a blank discovery card to each person (see Plant Discovery card resource sheet)
- Ask them to each find a plant or tree that interests them and fill in the card (see picture 1, overlaid)
- Reconvene the group to discuss their plants
- Ask them to swap cards and find someone else's plant

#### REVIEW & EVALUATION

- Topics for discussion could include:
  - What have they discovered about their plant?
  - Have any plants been 'discovered' more than once?
  - How are their plants adapted?
  - How abundant are they?
  - How much biodiversity exists in the habitat as a whole?
- Play 'Top Trumps' with Plant Discovery cards
- Make a collage of Plant Discovery cards. Photos could be added
- Write a letter home as a Victorian plant collector

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SEE RESOURCE SHEET IN HANDBOOK

# ENVIRONMENTAL LEARNING CARDS



## AWARENESS & EXPERIENCE

### PLANT DISCOVERY AE3



Picture 1

#### LEADER'S NOTES

##### Preparation

- Choose a venue with a variety of interesting plants/trees
- Duplicate Discovery cards
- Define a boundary for the activity
- Choose a suitable spot for plenary session

##### Resources

- Discovery cards, clipboards and pencils
- Hand lenses (optional)

##### References

[www.greatplanthunt.org](http://www.greatplanthunt.org)  
[www.kew.org/ksheets/pdfs/b2names.pdf](http://www.kew.org/ksheets/pdfs/b2names.pdf)  
[www.natureswork.co.uk/education](http://www.natureswork.co.uk/education)

#### DIFFERENTIATION & PROGRESSION

- Take the students to another habitat and run the exercise again
- Use scientific fieldwork equipment to make descriptions more precise, e.g. rulers for measuring size, quadrats for measuring density or % cover (see Measuring Trees card EU 7)
- Visit same habitat through the seasons
- Look at plant associations
- Research Victorian plant collectors/plant origins, e.g. potato and tomato from South America
- Draw or create a model of their own plant and give it a name (common or latin name)





# ENVIRONMENTAL LEARNING CARDS



AWARENESS & EXPERIENCE

PLANT DISCOVERY CARD **AE3**



WHAT WILL YOU CALL THIS PLANT?

Describe it

SHAPE

SIZE

SMELL

FEEL

COLOUR

DRAWING OF YOUR PLANT

What type of habitat does it like? (Wet, dry, shaded, sunny, cool, warm?)

How common is it? Tick the word that best describes it

|      |          |      |        |      |
|------|----------|------|--------|------|
| Lots | Numerous | Some | Patchy | Rare |
|------|----------|------|--------|------|

|                          |                          |                          |                          |                          |
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