



The Isles of Scilly Wildlife Trust

Heathland activities



Heathland Education Pack



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Tuning in – learning to be still

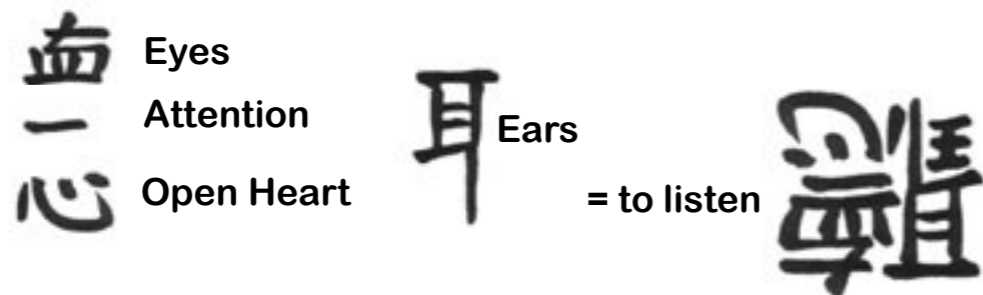
These activities will help provide some of the skills required to engage more fully with our surroundings.

Building an inner stillness that leads to an outer calm will hopefully allow more of nature’s experience to be absorbed. We need to learn how to be still, how to quieten our thoughts and to make space within them in order to make room for the natural world around us. It is hard for adults and children to be still. Our senses can all be attuned and practised through a variety of introductory activities. The aim is to open up the channels that will allow the opportunity for direct experience to happen and then to enrich that experience. We are trying to make the ordinary special. So much is missed by the speed of how we live life on ‘automatic pilot’.

Listening is by definition receptive. It is a step beyond hearing that requires an active involvement, a giving of full attention that has an element of expectation and a preparedness to be affected by what you hear.

In learning to listen the child can learn to focus attention into the required area by filtering out the unwanted sounds and voices from within and without, so concentration and true listening is given. For many, to do so for sustained periods of time will require effort and practice.

These characters that make up the verb ‘to listen’ suggest that the Chinese understand active listening very well



Count to ten

On the heathlands children can lie on their back with both fists in the air. Every time they hear a new sound s/he can lift one finger. In the stillness can you count to ten within your own head without hearing a bird or any other natural sound?

Radio

We hear things all the time yet listening is different. You could use a radio that is not tuned in to illustrate how ‘fuzzy’ and unclear the sounds will be if it is not correctly tuned in to the station. So is it true with us? Often we have so many different sounds around us that they all appear to merge.

1. Try sitting comfortably and for one minute just listen to the sounds that are happening outside the classroom or at a distance on the heaths. Write or note them down.
2. Now listen for one minute to the sounds inside the classroom or nearer to you, e.g. the sound of your feet on the heath as you walk. Write those down. What about inside you?

A heather bed

1. Ask everyone to lie down carefully on the heather and look skywards and begin thinking of themselves as part of the heather.
2. Lying still on the heather they may see it from a brand new angle.
3. The moving clouds will be visible, yet with eyes closed and after allowing themselves to get used to being crawled upon by insects and tickled by plants, they can sense the heather as a soft cushion.
4. Encourage them to stay calm and try not to let them become too restless and impinge on the experience.

Magic stones

Before your visit to the heathland, gather some fist size stones or marbles; you can decorate them if you wish. When you want the children to listen, sit them down and tell them that you have some magic stones. If they are quiet and squeeze the stone they will magically be able to hear sound better and the tighter they squeeze the more they can hear.

For smaller children it is good to have a practice run and put some more magic into the stones by shouting abracadabra! Then have another go. At the end ask the children to say what they have heard. Children have been known to hear the grass grow whilst doing this!

Silence types

In society being quiet can take many forms. The silence of a library, the silence during a minute’s silence at an act of remembrance, the silence in an exam room, the forced silence of being told to ‘be quiet’, the silence that may come before sleep. What kind of silence do people seek when they are out in nature? Explore and think about the differences.

What is your perception?

For any one of us sitting on the heath, there may be many different perspectives on what that experience is providing. We don't approach the 'reality' of nature without bringing our own preconceptions of what nature is and offers. An awareness of what is happening around us is seldom non-directional, we filter and select whatever impinges on our consciousness.

Sometimes our perspectives can close off or open up certain possibilities and there is therefore a need to recognise the reality of these different perspectives, to acknowledge that we may arrive with different views that will therefore create different impressions of the heath.

1. Sit on your own with a blank sheet of paper and a pencil.
2. When you are given the instruction you are to carry out the activity in silence and with no further help.
3. It is up to the individual to decide on their own how they are to follow the instruction. The instruction is :- 'For the next 5 minutes, observe, and record what you observe.'
4. After the 5 minutes, divide into 2/3's and compare answers. Report back to the whole group.
5. Questions could include : Why did you choose to draw/write what you did? Are any of the responses wrong? What did you understand by the instruction 'observe'.

I wonder?

Always try and remain curious about what you might find out on the heathlands. Before you go out to explore try and think of at least 5 ways to end this sentence:

I wonder why.....?

Spot the difference

Noticing things in nature depends on how sharp your powers of observation are. Try this game either with a friend or in teams.

1. Form two teams facing each other. Team A looks carefully at all the players in team B and tries to notice everything about them.
2. Team A then leaves the space and without been seen by team A, team B changes at least one thing about themselves (for example players may exchange shoes or jewellery, remove a sweater or glasses, undo a button or shoelace, put a pen in a pocket, tuck in a shirt)
3. Team A returns, faces team B and tries to spot the difference.
4. Swap turns and score 1 point for each change that is noticed.

Duplication

This activity helps with concentration and memory. Being able to identify things will also give them confidence with the natural world around them. The game has an obvious link with 'Kim's game' and can certainly be used as a reinforcing activity.

1. Gather together a number of natural objects from the area. These might be stones, seeds, plant parts, signs of animal activity.
2. Lay them out on a handkerchief.
3. Give everyone a short time to look at the objects.
4. There could be an opportunity to include the naming of the objects and so build vocabulary and identification.
5. The children are then sent off to find and gather if appropriate identical items from around them.
6. They are to keep their finds to themselves.
7. After about 5 minutes of searching everyone is called back and, with people gathered round, one item at a time is drawn out from under the blanket asking if anyone has found one like it.
8. The teacher can then tell an interesting story about the object.

Sensory walk

As you walk along a route get the children to note what sounds they hear, colours they see and any smells. At the end of the walk get the children to discuss what they recorded.

Sticks

Sticks can be used to collect items on a walk using wool.

1. First attach wool strands to your sticks. Have different coloured lengths of wool, some bright and some natural colours.
2. Distribute the pieces of wool randomly around a small area without the children seeing you.
3. As the children go out to look for the lengths of wool they tie them to their sticks, working from one end to the other.
4. After 15 minutes or when all the wool is found, compare sticks.
5. Are all the bright colours fixed at the beginning of the sticks? The duller ones would take longer to find hence the concept of camouflage is reinforced.

Hide & seek

Following on, or prior to the un-nature trail activity (see below) the objects could be hidden over a larger area (see mapping)

1. Using a basic outline map of the area that shows the main features, the children are asked to locate the objects.
2. Each object is matched to a numbered item on the map and when one is found they do not retrieve it (or give the location away to other members) but they mark on their map what is at that location.
3. Try to avoid the temptation of them watching each other and not using the map.
4. Staggered time starts as in orienteering might help.

Un-nature trail

Here we are looking at the concepts of camouflage and adaptation to the environment. The snakes, birds and moths with their colours, size and movement.

Select an area of the trail and place 10-15 artificial/unnatural objects along it at various heights and locations. Some should be quite obvious and stand out brightly, like balloons - others blend in and are therefore harder to spot. Keep the number of objects a secret. When the children reach the end of the trail ask them to whisper how many objects they have seen. If they have missed any they could return to look more carefully. A discussion can follow on how camouflage can help animals. The children can then go looking for natural things. You can also discuss how un-natural litter often spoils the natural environment.

Quadrats

There are many different kinds of plants in one small area of heathland. By using quadrats (a frame to mark out a small area for study) you can look closely at a small area and you can also compare different types of heathland to see how it changes.

You will need a quadrat, pen, paper for each child/group. The quadrat can be as small or big as you like but all need to be the same size and shape. You could bend a metal coat hanger into a square or use string and pegs, or use an exercise hoop – also see mini nature reserves.

1. Ask each child/group with a quadrat to place it somewhere on the heathland. You may want to ask them to choose a place randomly, or you may want to place them in a more uniform way for example in a line 2m apart.
2. Now count the number of plants in the area inside their quadrat. Get them to look closely; are all the grasses the same? What other plants are there; can they identify them? Which are the most abundant?
3. You could try to compare different sites or different areas for example across a footpath.

Nature's dominos – observation

1. Place two different natural objects found in abundance in the local area next to each other on the ground. This is the domino.
2. On a count of 3 one member of the group runs and finds one of the objects in the existing domino AND a new item.
3. Carry on until everyone has had a turn.

Description Circles

1. Photocopy the circles found in the appendix and laminate if you wish to use again in the future.
2. Give the children a handful of circles and they see if they can find things that they describe.
3. The children then lay the circle next to the object and when finished the group sees what each other has described.
4. If windy or with younger children, this can be done in a group and the circles not placed on the ground. You could even have a competition to see who can find the most things.

A sense of place

A sense of place is all about finding your local identity. This exercise is a good way to get children to talk about the character of their neighbourhood, it leads into mapping activities and those that encourage a celebration of what they like or plan changes to what they dislike about their area.

1. Make a list of places and features – these can be local or global i.e. rainforest, desert.
Built places – for example – shops, houses, church
Greenspaces –for example – playing fields, woodland, heathland
Watery places – sea, streams
Local landmarks - memorials, flag poles
2. Photocopy the lists so that there is at least one for each pair in your group. Then cut each list into slips with one thing on each piece of paper and jumble up each set of slips.
3. Give each pair a set of slips and give them a couple of minutes to sort out the slips, separating those things they know from in and around their neighbourhood from those that they do not know.
4. After a couple of minutes each pair should have a pile of slips or list of things that they feel describes something about the area they live in. They can add up to three more features of their own choice.
5. Ask each pair to lay out their slips and then spend another minute visiting what other children have done to see if they chose the same sort of things. Whether they match or vary will depend on the nature of your group.
6. Now ask each child to choose just five things which they think are most important and ask them to say why.

Map sticks – this activity helps to focus the mind when exploring a local area and is an introduction to maps and storytelling. You can work in small groups, pairs or as individuals depending on the area and how far people can spread out and whilst remaining in sight of each other.

1. Each group member starts with a stick. You will also need some strong cotton, twine or coloured wool.
2. Explore an agreed space or route. As the children go along they collect a series of small items that reflect the different kinds of

places they pass through. These might be different sorts of leaves or plant material.

3. As the items are chosen, they are bound onto the stick with twine.
4. At the end of the activity everyone will have a ‘map stick’ that tells the story of their own journey.
5. Encourage everyone to share their story using the stick as a memory prompt.

The good, the bad and the boring

This works in all sorts of places and gets the group to look closely at their surroundings.

1. Provide the group or individuals with a map of the area you want to investigate (this can be hand drawn or photocopied), pencils and paper
2. Ensure that the children understand what areas and places the maps represent and decide whether to go in small groups or all together depending on the level of supervision required, but it is best if each person has their own recording sheet. Younger children will like to work in a pair.
3. Agree a route that the children will then follow.
4. As the children follow this route using the map, get them to record their opinions of different places. They should make notes on places that they like or dislike or perhaps they ignore.
6. Back at base invite everyone to transfer their thoughts onto a group summary sheet.

There is unlikely to be agreement on places that were liked and disliked as each person has their own priorities. This can be discussed.

Variations

- Use instant, digital or easy to use cameras to record the good, the bad and the boring, this can then be made into a mural.
- Use video and commentary to record the area
- Make 3D models of the area and use annotated flags to record people’s feelings
- Ask groups to make-up and perform or record a news bulletin to tell others how they feel about a particular local area. If you want to record this the Trust has radio recording equipment.
- Repeat the activity but pretend to be a bird, insect or mammal. Would the results be the same?

Mapping

This is an introduction to mapping.

1. Gather together lots of examples of maps so that the children can see the different sorts of maps that are available.
2. Ask the children what they like about each sort of map? Are there any symbols? Do they find these useful? Do the maps show distances? Which do they like the best? Which map would be useful for a visitor or serious walker?
3. You can now get the children to prepare or use a simple map. The activity Hide and seek carries on well from this.

Hide and seek

This is a similar activity to that found in 'observation'. You will need 10-20 different small items. These could be things like bottle tops, film canisters, cotton reels, tiny teddies, coils of string, coloured pebbles. Alternatively use similar items each carrying a different letter. Allocate each of these a number on your own reference list e.g. Pebble=1

1. Decide on the area you are going to use, this could be as small as a room but it is better if you choose an open green space, perhaps with trees, benches, paths etc.
2. Make a basic outline map of the area showing the main features.
3. Hide your collected items in the defined area and as you go, indicate where they are on your map, marking only the number of the item e.g. No. 10 on the open side of a tree stump.
4. Make enough copies of the map for each group member.
5. Once everything is in position give each child a copy of the map and give each the task of finding a particular numbered item using the map.
6. When they find it they do not retrieve it (or give its location away to others) – but they must let you know what the item actually is (or letter mark) to show they have found it. Use a reference list to check.
7. Keep going until you run out of steam or everyone has managed to use the map to find as many items as you ask. You will find that the children have been watching each other and will know all the hiding places – encourage them to keep on using the map.

Make your own map

Now challenge the children to make their own maps using the same idea. Collect up the original items and share them out. Each pair is then challenged to hide something and make a suitable map that others can use to find the items. Test out the maps.

Treasure trails

You can prepare a longer version of Hide and seek based on a trail. This time the group should work together to decide where you are on the map and what is hidden along the way at indicated places. You can even add written clues to help to home in on hiding places. It can be a great way to liven up a walk and understand something more about map reading.

More mapping

Challenge the children to make a map showing their route to school, to their friend's house, to the shop etc.

Putting wildlife on the map

The kinds of plants and animals found in a particular place depend on many different things. Knowing what lives where and having some understanding of why, is at the heart of wildlife conservation. Using a map as a background can provide a valuable framework for species recording work with your group, either on a particular day or filled in over a longer period.

If you have a big map that can be kept on display, children can make illustrated pin flags to indicate where they saw a certain species, include the date with each record. This is a very accessible way of sharing what the group has discovered. If your map needs rolling up, mark it with a number where the observation was made and then keep a record of what the number represents in a separate notebook, e.g. no.47 primrose in flower 19 Feb. 2008. Individual children could make their own personal maps and records.

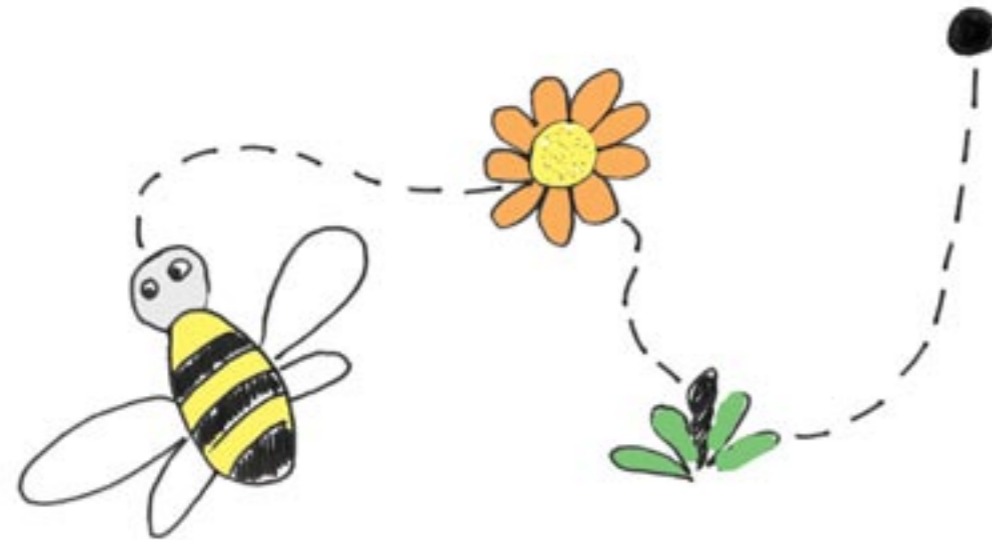
All these approaches enable a record of what is found where to be built up over time and is just one of the many approaches to keeping a nature diary.

Bee map

This develops children's observation skills and asks them to see the world from a bee's point of view (also see micro hike).

You will need a quadrat or something to define an area and cocktail sticks with flags on. Tell the children that in the middle of the quadrat lives a solitary bee. Their task is to help the bee find its way home. Ask them to mark with a cocktail stick anything of interest to the bee that may help it to find its way home. Ask them if they can see different things at different heights. Are there any smells or noise that may help? You can then ask them to draw a map showing what they have found.

Remember to remove the sticks when you have finished.



Micro hike

For this each child will need a magnifying glass that will magically allow the child to be shrunk down to the size of an ant. On their micro hike the hikers lay a piece of string of 1-1½ metres down on any interesting ground they can find. Keeping their eyes no higher than 30cm above the ground they are to follow their string trail cm by cm viewing and observing natural wonders such as grass blades bent by rainbow dew drops, purple heather bursting with light, powerful-jawed spiders.

Ask questions to stimulate imagination: what kind of world are you travelling through? Are any neighbours friendly? Is that spider going to eat you or take you for a ride? How does that beetle spend its day?

Zooming in

Before going on your micro hike make a cardboard frame approximately 20 x 20cm or if out on the downs without one, make a circle with your arms out in front of you

1. Whilst standing up look down through your frame or arms.
2. What can you see? Different plants? Any animals? Soft/hard surfaces? Colours? What is the most unusual/attractive thing in your 'frame'?
3. Maybe this could be sketched.
4. Try kneeling down and looking through the frame. As they zoom in are there any new/different sights?
5. Now lie on stomachs with frame touching the ground. Are there any more sights as you zoom in?
6. The children could compare views and see if any are more interesting than others.

Flags

1. Along the micro hike trail, or maybe forming a 'reserve' with the string as a circle, use 5 mini-flags made of cocktail sticks and self adhesive labels to highlight five special sites.
2. They could be a flowering plant, a stone, a worm cast, a fallen twig or a rabbit dropping.
3. Their magnifying glass working as a magic eye may find grass as tall as towering trees, rocks as big as houses and twigs the size of logs.
4. Show other people their paths or reserves and draw out any expressive vocabulary.

Noah's Ark

1. Make cards with names or pictures of animals.
2. Copy the cards so that there are two of each.
3. In a large space give each child a card with an animal picture on it.
4. They must not show anyone else what their animal is.
5. They then try and find their partner by only making the appropriate noise of the animal thus forming 'two's' for Noah's ark.

Watcher of the road

Play this game at night. Find a safe place to create a 'road'.

1. The watcher sits in the middle of the road with his/her eyes closed and a torch in their hand.
2. The remaining children start about 10 metres away and slowly try and stalk past the watcher and reach home which is a line 5 metres past the watcher.
3. If the watcher hears anything s/he shines the light in that direction. (No wild sweeping of the light around)
4. Anyone the light touches must freeze.
5. The first to pass the watcher and reach home becomes the watcher.

Bird song

1. Can you count how many different songs you hear?
2. It doesn't matter if you can't identify them.
3. Can the children describe or transcribe them.
4. Invent your own systems of transcription to try and capture the sound.

Owls and mice

1. Sit the group in a circle on the floor.
2. Choose one child to be the owl and sit in the centre of the circle with a blindfold on.
3. Point at 2 opposite children who will be mice, voles or shrews and get them to swap places without being heard.
4. If the owl hears a noise, they swoop on it by pointing in the direction that they think the noise came from.
5. If the owl points correctly, the mice, vole or shrew is eaten and returns to the edge of the circle.
6. The remaining mouse, vole or shrew take the place of the owl and the game begins again.

To make it more difficult to move without being heard you can play on a play parachute or where there are leaves and twigs.

Predator or prey

1. Children form a circle
2. Two are blindfolded and asked to stand in the middle.
3. One child names a predator in the area and the other names one of its prey.
4. The predator tries to catch the prey by listening for him, then tracking him down and catching him. Stress the need for silence.
5. The players could make it more realistic by imitating the animals they have chosen to be.
6. Bells could be put on some of the animals.
7. Experiment with different numbers of predators or prey.
8. The circle could be made tighter to bring the players closer together. If either of the animals goes too near the edge of the circle, the children tap him twice.
9. Possible predators and prey could be: rat and seagull, hedgehog and thrush, shrew and woodlouse, peregrine and rabbit.

Bat and Moth

A similar game to the one before, this is a popular and noisy game.

1. The group form a circle and one person is chosen to be the bat who is blindfolded and stands centre.
2. Three or so others are designated to be the moths and come into the centre of the circle.
3. The aim is for the bat to catch the moths using 'echo location'.
4. Whenever the bat calls out 'Bat' the moths must immediately reply 'Moth'. Tell the moths 'Everytime you hear the bat call out 'bat' it is his signal hitting you. He sends it out to see if there is anything out there. His shout bounces off you and returns to him. The return signal that you must shout is the word 'moth!' Now he knows that moths are near and he is ready to eat!'
5. The bat has to locate and tag the moths by listening to their responses.

Two bats could enter the circle and be encouraged to act as a team.

Web of life

This game can help to appreciate the intricate inter-relationship between the different elements of a habitat. The different aspects of the heathland form a balanced web of life.

1. Children form a circle the teacher stands inside with a ball of string. Who can name a plant that grows in this area?...Heather! Right you hold onto this piece of string Miss Heather. Now what kind of soil is needed for heather to grow? Dry and acidic! Good now you take hold of the string here and you are now connected to the heather. Now what keeps the soil dry? Continue connecting the children as new elements of the ecosystem are revealed.
2. To demonstrate the links, take away one plausible member of the group e.g. the grazing animals are removed.
3. When they are taken out they tug on the string and everyone who feels a tug continues the ripple of tugs until everyone can feel the effects of one element being removed from the web.

What do you think this proverb means?

'The strength of a chain is in its weakest link'

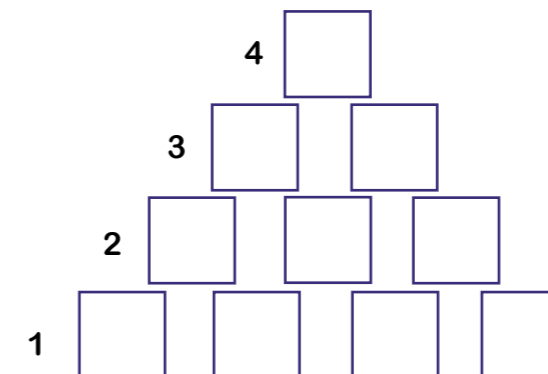


Life cycles

You will need to make a set of cards. You can do this by choosing which life cycle to do, butterfly or shrew; these are listed in the appendix. Get the children to make drawings to represent the situations which can occur in that life cycle. When the pictures are finished, photocopy them onto card and cut them out. Put a cross or a tick in the bottom right hand corner of each card and the correct row number onto the back of each card. If you laminate the cards, they will last longer.

How to play the game

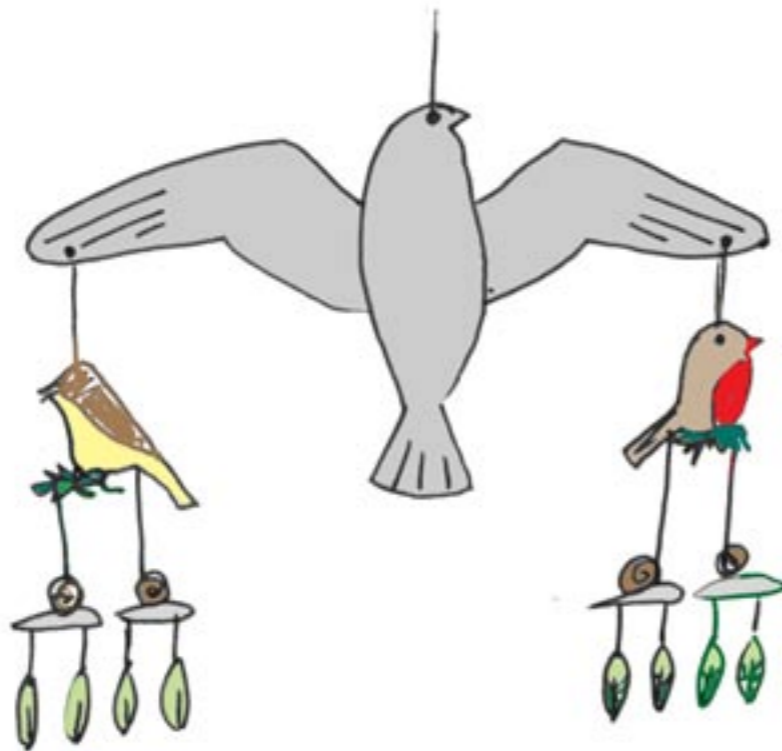
1. Choose which life cycle that you are going to do and give out the cards, one set for each group.
2. Each card has a number on the back which tells you in which row of the pyramid it should go e.g. 1 means on the bottom row, 2 the next row up etc. In the bottom right hand corner there is either a cross or a tick
3. Put the card face down in the shape of a pyramid making sure that the correct cards are in the right line
4. The first player turns over a card on the bottom row and reads what it says. If there is a cross in the corner, the card is placed back in the row face down where it was originally
5. The next person turns over a card in the first row and sees what it says. This continues until a player turns over a card with a tick on it. Note there is only one tick per row
6. When the tick card is found it is placed face up in the line and the player who found it turns over a card in the next line up. If this has a cross on it, all the cards that are face upwards are turned face down again and the next player starts again on the bottom row.
7. You continue choosing cards and replacing them one row at a time till one person can pick the tick card in each row in one go and will get to be fully grown.
8. Keep a record of how many players it takes to get to the top like this. This is the number of eggs/young needed to get 1 adult.



Food chain mobile

Draw some plants and animals onto card. You will need 8 at the lowest food level for example plants and dead organic material. Then draw 4 herbivores or decomposers that feed on them, for example caterpillars or worms, then 2 carnivores that feed on them e.g. blackbirds or mice. The one top carnivore for example a peregrine.

From the top carnivore hang its prey, then fix their food and so on until you get to the lowest food level. This diagram can be found in the appendix however you could do this with pictures cut out from magazines and calendars or draw your own design.



Food chain game

A game or scientific experiment to find out how energy from the sun is transferred along the food chain.

1. Place 4 buckets in a line about 10m apart.
2. Fill the first bucket with water, this represents the sun.
3. Give children cups with holes in the bottom. The children need to transfer water from the sun to plants - bucket 2.
4. Mark the level of the water.
5. Now the children need to transfer the energy (water) to herbivores - bucket 3.
6. Mark the level and do the same to the carnivores - bucket 4. At the end you will be able to see how much energy is lost and this explains why there are lots of plants and not so many carnivores.

Classifications

1. Think of what you have been learning on the heaths.
2. Either on your own, in pairs or as a whole group name 20 things you might find on the heathlands.
3. Arrange yourselves into groups that show classification or common ways of grouping the items.
4. If doing this as a group, stand in a circle and in turn name yourself as a plant, animal or bird that you might encounter on the heath.
5. Move into the three groups.

Variations include:

- *Shopping list* 'I went out onto the heathland and saw ...' As each new word is added the person has to recall all the previous words so developing memory skills. The list gets longer as you progress around the circle.
- *Basket case* The group stand in a circle with a stone or mound in the centre. Plenty of free space within the circle is needed as there will be plenty of running around. Each member of the group is alternatively given one of four classifications e.g. invertebrate, mammal, bird, plant. One person sits on the stone or mound and calls out one of the classifications. All of that group then change places including the one from the middle, leaving one to sit on the mound. They then call out a classification. Again that group change places. For all to change call out 'heathland'.

Steal the specimen

Collect some specimens from around the heathland. They may be small samples of leaves, flowers and seeds from the trees and bushes. Aim for about 7-10 specimens.

1. The children form two equal teams and line up facing each other about 10 metres apart.
2. Place the specimens in a row on the ground between the two teams.
3. The teams count off so that each has a number and in each team there are players numbered one, two, three etc.
4. When everyone is ready, call out the name of one of the specimens and then call out a number (Randomly works best) The next plant is gorse and the number is.....two!
5. As soon as the two's hear their number, they race to the specimens trying to be the first to find the specimen that links to the gorse bush.

Scoring: right specimen = 2 points for the team, wrong specimen = -2 points for the team.

Meet a stone

This activity uses a child's sense of touch to identify objects they can't see. It also develops their descriptive skills and communication. The game highlights the fact that there is more to a simple stone than meets the eye. This is a variation on the classic meet a tree or shell.

1. Split into pairs and blindfold one child.
2. The 'seeing' child leads their blindfolded partner carefully to a granite stone in the ground.
3. They then have to closely study the stone using their hands to feel for its unique identification features and explain what they can feel to their partner.
4. Questions that might prompt their exploration of the stone are:
How big is it? Can I stretch my arms around it? Does it fit into the palm of your hand? What shape is it? Are there any protruding points? Rub your cheek against it. Does it feel rough or smooth? Are there any soft areas? Do they form a pattern? How much is settled into the ground?
5. When they have fully described their stone get the partners to lead them away from their stone, spin them around and take off the blindfold.
6. Can they now find their stone?
7. Swap the 'blind' for the 'seeing' so that the other partner gets a chance to meet a stone.

Meet a tree

As 'Meet the tree'. The 'blind' child is helped to explore a tree and feel its uniqueness. Leading questions might be: Can you put your arms around it?, Rub your cheek on the bark, Are there any plants, lichens, insects on the tree?

As it may be the only tree in area the teacher could talk about their feelings of respect for the tree the way in which it has withstood the ravages of humans, winter and wind. A Hawthorn for instance may be bent and shaped by the wind as it stands exposed. Despite its lonely presence it provides shelter and food for birds and insects.

Scavenger hunt

A scavenger list should require the child to think creatively or to look very closely. You may need to adapt the list to suit your locality.

- * everything in nature has a function
- # everything in nature is important
- + a sun trap is anything that captures the sun's heat (water, rocks, plants, animals)

Scavenger list

Collect only things that you can return safely and without damage.

1. A feather
2. One seed dispersed by the wind
3. A thorn
4. Something round
5. Exactly 10 of something
6. Something sharp
7. Something perfectly straight
8. Something that is of no use in nature *
9. Something white
10. Something that reminds you of yourself
11. Something that makes a noise
12. A piece of fur
13. One camouflaged animal or insect
14. A big smile
15. Something important in nature #
16. Five pieces of human litter
17. A sun trap +

The minibeast poem

A good way to start minibeast hunting with young children is to say this minibeast poem, it has actions!

We are searching for some minbeasts,
There must be some, or one at least!
We've seen their pictures in a book
Now I wonder where we should look?

Shall we look on a leaf?
Remember to look underneath.
We might find a caterpillar having its lunch,
There it is, going munch, munch, munch.
(open your hands and close like mouths)

Shall we look under a log pile?
It looks like it's been there a long while.
We might find some woodlice in the wood all holey,
They've rolled into a ball, rolley, polley, rolley.
(move hands in a circular motion)

Shall we look in the soil and earth?
It's cool and dark under the turf.
We might find a worm having a wriggle,
It's dived into the soil going wiggle, wiggle, wiggle
(wiggle one finger)

Shall we look on the ground?
Can we see any mounds?
We might find some ants who are in a hurry,
They walk in a line going scurry, scurry, scurry
(wiggle fingers like legs)

Shall we look in the long grass?
It tickles as we brush past.
We might find a spider at home in its web,
Dangling and dangling on a long thread.
(join two hands by thumbs and wiggle fingers to make a spider.)

Anon

Minibeast safari

Look:

Under things – lift up stones, lying logs and flat to the ground plants such as leaves of a rosette plants like dandelions and plantains.

On plants – on leaves, on flowers, stems.

In plant litter and tussocky grass.

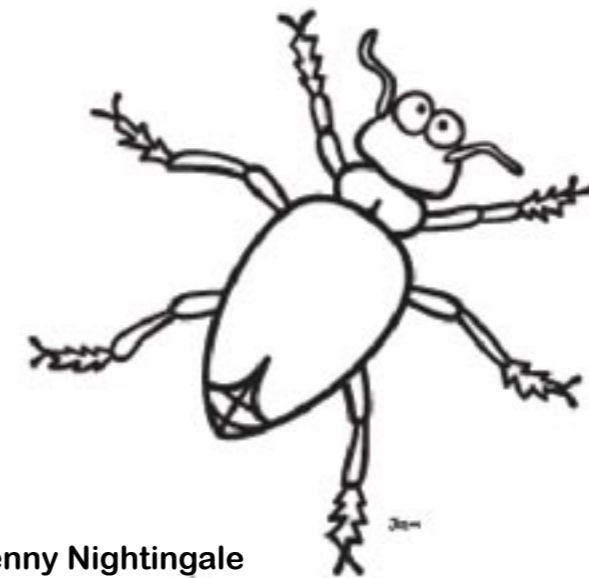
In dung – with a strong stick, prod cow pats or prise off the dried crust and see if any beetles are excavating below.

A record sheet can be found in the appendix.

Always do your best to leave these habitats as you found them and remember to wash your hands before you eat or drink.

Many medium-sized and large beetles can be scooped into a jar if you are quick and careful. This will make close-up observation much easier. You can also get close up by simply letting a beetle walk across your hand. Many will climb to your fingertip and fly away, which is interesting to watch. Others will keep running, hoping to drop off back to the ground. Be warned though, some of the bigger beetles can bite! If this happens wash the bite well and keep an eye on it as you would any cut or graze.

Small and tiny beetles can be brushed into a bug jar with a small soft paintbrush but you may find things easier with a pooter.



Oil beetle © Jenny Nightingale

Cow pats – minibeast hunting

Cow pats and dung are not just something to avoid when you are going for a walk, they are an excellent place to spot insects.

A cow pats around 10 times a day and on average a pat is used by 1,000 creatures before being broken back down into the soil. As there are 365 days in a year that works out at about 3,650,000 insects per cow!! With all these insects using the dung they in turn feed birds, bats and the Scilly shrew.

Each pat goes through a cycle as different insects use the pat. The first to arrive are flies and about 60 types of fly use dung, most are looking for somewhere to lay their eggs. Dung is made up of undigested grass and liquid and the maggots suck up the liquid like a nourishing soup. It takes 3 weeks for the fly larvae (maggots) to complete their cycle. Once the pat begins to dry out a crust forms and it becomes more difficult for flies to lay eggs. This is when the dung beetles move in and lay their eggs in a specially built chamber. The larvae of the beetles stay for a month or two and then move underground for a year then pupate and emerge as a fully-grown beetle.

Tiny nematodes and mites are carried by the beetle and they remain for several weeks, feeding on dung. The final group of creatures to use cowpats are earthworms, springtails and other organisms that live in the soil. They help to break down the dung and mix it back in with the soil.

Not all cow pats are perfect places for insects as some medicines given to cattle (known as avermectins and ivermectins) are used to kill worms that live in the animals' guts, they are then passed into the dung and kill insects trying to colonise the dung. The Isles of Scilly Wildlife Trust do not use this type of medicine so the pats that you find on our sites will be great places for insects!

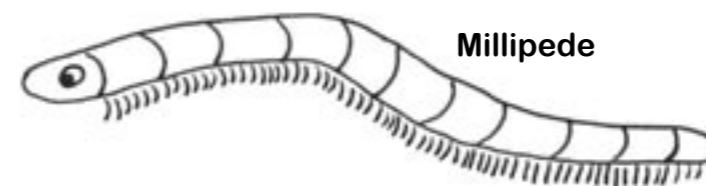
Minibeast movement

1. Carefully collect a minibeast or even a large worm.
2. Place it on a smooth piece of paper and listen carefully as it moves
3. Can you describe or compare the sound?
4. What movements do they make?
5. Draw a series of pictures to illustrate its movement.

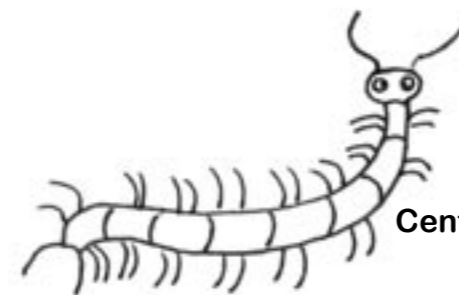
Millipedes and Centipedes

Tell the group that they are going to do a scientific experiment and need to pretend to be a millipede and a centipede. They are going to race around a course; which do they think will win? The millipede that has more legs or the centipede that has fewer legs.

1. Split the group into 3 teams. Two of the teams must have an equal number of people in them but the third can have one person more or less than the other teams.
2. Get each team to stand in a line one behind the other with a gap of 1m between each line.
3. Get the 2 equal teams to join by linking their inside arms so they are in pairs one behind the other. Then get them to put their free hand on the shoulder of the person in front to join up the lines. They are the millipede as they have 4 legs per body segment.
4. The people in the remaining line put both hands on the shoulders of the person in front of them to join their line up. They are the centipede as they have 2 legs per body segment. The people at the front of the lines use their arms as feelers.
5. When you say GO! The children need to run down a pre-arranged course and back to the start. If the lines break they must stop and reform before continuing.
6. The first complete team back to the leader is the winner. The centipede should win as they have fewer legs to control. They are carnivores so need to chase food whereas millipedes eat dead animals so do not need to move as fast.



Millipede



Centipede

Looking at webs

Spider webs are fascinating, but they can be very sticky!

1. Ask the children if they know why a spider does not get stuck in its web. Do they know how they are made and how long they last?
2. Now find a web. Look closely at it, but be careful not to destroy it.
3. Here are some questions to ask to help the children look.
 - Is the web attached to anything?
 - Is there any damage to the web?
 - If there is some damage, can they see what caused it?
 - Can they see the spider?
 - Using a magnifying glass look at the web more closely.
 - Are all the threads the same?
 - Can they see any drops of gum and where are they on the web?

Gum droplets can be seen on the outside spiral threads of a web so that the spider can sit in the middle without getting stuck. Most garden spiders tend to use a web for a couple of days and eat it so that it does not waste silk. House spiders don't do this and we have to clean up after them!

Minibeast PR campaign

Minibeasts can suffer from a bad image and can be the source of lots of screaming! Why not conduct a minibeast PR campaign. Divide the children into teams each promoting a different minibeast, for example: spiders, woodlice, worms etc. Encourage them to come up with catchy phrases and make posters promoting the good points about their minibeast. You could organise a school vote to find the best minibeast and discuss different methods of voting. Either the biggest vote wins or voters order their preferences. If no minibeast secures an absolute majority of first preference the lowest placed minibeast is eliminated and the second preference of that minibeast are transferred to the remaining candidates, the process being repeated until one minibeast reaches 50%.

Butterfly bodies

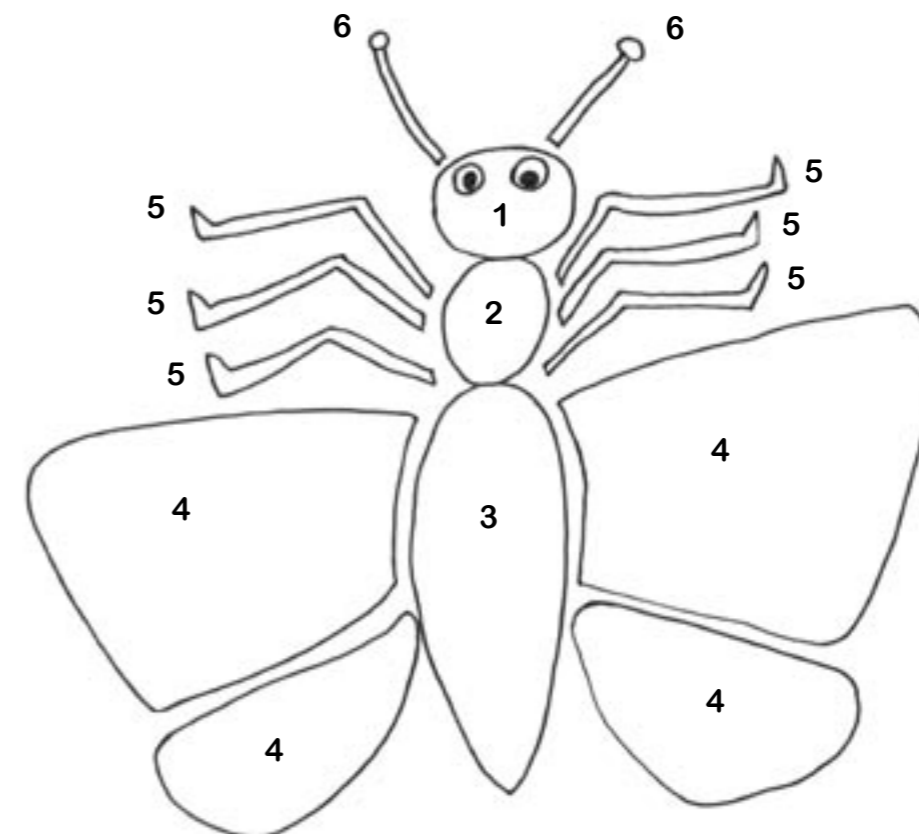
This game is based on the traditional 'beetle drive'.

1. Split the group into 6. Work either as individuals or groups.
2. Trace or photocopy a butterfly body shape and give each person one of the pictures.
3. Give each group a set of coloured pencils/pens and a die
4. Each person in the group takes it in turns to throw the die to collect a body part.
5. When you get the body part number that you need, colour in that part of the body on the picture.
6. The winner is the first to colour in all of the body parts.

Throw

- 1 for head
- 2 for thorax
- 3 for abdomen
- 4 for a wing
- 5 for a leg
- 6 for an eye or antenna

For a humorous twist after 1 minute everybody on each table must move around one place, or each table moves to the next taking up their corresponding place. A bigger butterfly bodies diagram can be found in the appendix.



Bird mural

A good way to get children interested in studying birds is to make a bird mural. This can take many formats but a simple way is to cut pictures out of magazine and calendars and stick them onto a large board. The children can sort them into similar looking birds or those with the same shaped beak etc. You can also do this activity with flowers, trees etc.

Bird Watching

This can be done any time of the year; the key is to have the children sitting quietly. Putting children in small groups can make it easier for them to sit quietly and as still as possible. The quieter and stiller they are the more birds will be. Remember to let nature come to you. A record sheet can be found in the appendix.

Get the children to really look at the bird. They can study its size, shape, markings, what the beak looks like and tail. What was the bird doing, what was it eating? You should also note the date, the weather and time of day. The children can record the birds, draw them and even make a chart if you are doing this on a regular basis.

Worms

With hungry mouths to feed, parent birds must constantly hunt for food. This might be small grubs, worms or other invertebrates. Worms and insects can be difficult to find.

1. You will need – 40 pieces of different coloured wool about 10cm long – have a mixture of browns and bright colours; a large card with strips of double sided sticky tape on it
2. Scatter the pieces of wool around a selected outdoor area and explain to the children that they are all birds with hungry chicks to feed. They must run and collect one woolly worm at a time and bring it back to the leader (hungry fledgling) Stick each piece of wool onto the card in the order that it was found.
3. Set a time limit and say that fledgling bird needs 35 worms to survive.
4. When the time is up count the worms – has the fledgling survived? What do the children notice first about the colours collected. With any luck they will have seen the bright colours first and the dark greens and browns last as they are well camouflaged. What is the best colour for a worm or grub to be if it doesn't want to end up as a birds breakfast?

Race against time

Tell the children that they are hungry birds and need to find food to survive the winter.

1. Before you start you will need to make cards – you will need cards with high, normal and low written on them. To make the game easier you can also put on the number that the card is worth, 5 high, 3 for normal and 1 for low. Make the same number of cards as children for high and low energy and double for normal energy. For example if you have 10 children you will need 10 high and 10 low energy cards and 20 normal energy cards.
2. Shuffle the cards and then scatter them face down around the site.
3. Explain to the children that they need to find food cards and if they find a high energy food card that it is worth 5 points, normal is worth 3 points and low is worth 1 point and that they need to find 15 points worth of food to survive the winter.
4. Give the children one minute to collect the cards. When they have collected 15 points worth of food they must stand next to the leader as they have survived the winter.
5. At the end of one minute stop the game and see how many birds have not collected enough food. Unfortunately these birds will not have survived the winter.
6. You can repeat the game and see what happens if it is colder and the birds need more food. This time they need to collect 20 points worth of food to survive. See how many birds don't get enough food this time. To represent food hidden by snow and therefore harder to find, you could include some blank card so the birds will need to turn over more cards to find ones worth points.

You could change this game to Scilly Shrews as they do eat an awful lot of insects!

Where should I build my nest?

Help the Blackbirds find the best place to build a nest.

Ask the children to work in small groups to map a small area. Make it a map with a difference and look at the surroundings from a bird's point of view:

Where is the shelter and vegetation?

Where are the dangers?

Are there households nearby who may own cats?

Where are the best places to collect materials for your nest?

Where will you go for food when your eggs hatch?

Are there too many neighbours?

Ask each group to mark these areas on their map and then choose a nest site. They share the maps with the rest of the group – perhaps children could pretend to be 'bird estate agents' and try to convince the other birds that their location is best.

Flapping birds

1. Photocopy the bird template onto thin paper (see appendix), one for each child. They can colour them in and cut out.
2. When coloured in and cut out, take the birds outside and draw a circle for a nest and give each child a piece of stiff card.
3. Get the children to pretend to be birds and flap around the site using their arms as wings.
4. Put all the paper birds on the ground with their heads facing towards the nest. Now they can make the birds fly!
5. Demonstrate how by waving the card quickly and make the paper birds fly around and get the children to try and make their bird fly into the nest.
6. This activity can be changed by substituting the bird for a butterfly going to a flower.



The migration game

This game is a different version of tag and investigates the dangers that migrating birds face. It focuses on swallows that every year fly to South Africa and back to Britain to breed. You could do this for any migrating bird and it is interesting to look at the vast distances that these birds travel on a world map in the classroom.

1. Tell the children that they are swallows and pick one of them to be an egg collector.
2. The children run around pretending to be swallows and the egg collector runs out into the group and tags one of the swallows and brings them back to the leader.
3. Gather in the group saying 'Oh dear one swallow did not even get out of the nest, the egg collector got them. Now you have to try to get across the channel, some of you might come across storms.'
4. Keep the egg collector and dead swallow back, and they become channel gales that tag two more swallows.
5. Repeat game following the list. You can deviate from the list so that more swallows make it to South Africa and if there are enough children you can do the journey back as well.

In the UK and not out of the nest get taken by an egg collector x 1
 Crossing the English Channel get caught in storms x 2
 Fly over Southern Europe and get caught by bird trappers x 2
 Fly into falcon territory who eat swallows x 1
 Cross the Mediterranean and get caught in storms x 1
 Fly over the Sahara Desert and risk dehydration and heat x 2
 Fly over the tropics and get caught in storms x 1
 Fly over Africa but succumb to pesticides x 1
 Rest in South Africa for the winter.

The artists palette

This activity encourages the students to look at the variety of colour in nature.

1. Look at all the different colours on the heathland.
2. Try and give a name to all the colours.
3. Give each child a piece of card cut into the shape of an artist's palette with pieces of double-sided sticky tape arranged around the edge. A blank palette can be found in the appendix.
4. They then gather small pieces of different coloured materials to make up their palette.
5. If possible mix paints back at home to match the colours on their palettes and paint a picture of the heath for that day.



Green or green?

This version explores the colour green.

1. Use the green paint strips/colour charts from decorators that could be cut into leaf shapes.
2. Using double sided sticky tape take only caterpillar - bite sized pieces of green from the plants they find around them.
3. Try and find a piece of nature for each shade of green.

Rainbow colours

In the field concentrate on the natural setting and see how many colours/shades of colours they can see without moving from where they are. Use a paint strip from a DIY store to examine shades of colour. This can be green but why not try orange or pink!

Draw a rainbow and try and find a matching colour from nature. Write a description of this next to the colour. At the end see how many different colours were seen or what was the most common colour.

Colours

What would you say are the four main colours of the heaths? They could be GREEN, PURPLE, YELLOW and BROWN



If they were your chosen four colours how many different ways could they be arranged on the flag diagram? A blank flag image can be found in the appendix.

Circles

Think of all the places you can find circles. Stand in a circle if you are with others and sit down when you can't think of one. Then share.

Camouflage

Camouflage is used in nature and some colours and patterns are more easily seen than others. Some flowers want to be seen by insects that pollinate them and some insects use camouflage to avoid being eaten by other animals.

1. Use a variety of coloured beads or small pieces of coloured card. Count them so that you know how many you have got of each colour.
2. Place them in the grass but ensure that the children cannot see you.
3. Ask the children to find the coloured beads or card and when they have found one return them to the group leader, they then go looking for more
4. The leader collects and displays the beads or cards in the order they have been found.
5. At the end discuss which colours have been found and which have not. Discuss which colours would be flowers and which would be camouflaged insects.

Camouflage butterfly

1. Draw the shape of a butterfly onto a piece of plain paper or card or use the template that can be found in the appendix.
2. Cut it out and give one to each person.
3. Place your butterfly against the ground, stone or plant.
4. Use coloured pencils to try and make your butterfly merge into the background and disappear.

Nature pictionary

1. Brainstorm a list of fifteen or twenty different plants/animals found on the heathland.
2. Write each onto a card, shuffle, cut and divide into two piles face down.
3. Divide the group into two teams and give each team some paper and a pen.
4. The first child from each group comes up to you and you whisper the word from their pile of cards, they go back to their team and draw it.
5. When someone guesses the plant or animal the second child comes up and receives the next word on the pile. It is a race to finish.

Ribbons

Draw the mosaic of rock, heather and bare ground that you can see from where you stand. Can you see any shapes like flowing ribbons? Can you see waves?

Picture sentence

Try and draw this sentence - replacing each word with a picture.

‘The Tiger beetle ran on its eight legs to reach the hole in the earth’

Sounds

1. Rest on the heathland and tune in to the sounds around you.
2. Draw your own symbols to represent each sound that you hear and choose where you place it on the paper according to where it is in relation to you.
3. When the time is up gather together and compare maps.
4. Who heard what? What symbols did people use? Were there more sounds than they expected?

Photographs

Take photographs from unusual angles - what does heather look like if photographed from the standpoint of a beetle? What about a gorse bush taken from that of a bee?

Use photographs of areas which have had a special meaning to peoples of the past. What do they think was the relationship between nature and the heath, and the people. Words could be added from other activities that are aimed at drawing out the oral dimension.

Use digital or other easy to use cameras to make notes of areas they like and don't like. There is unlikely to be wholesale agreement as each person brings their own priorities. The activity could be expanded to include something that needs improving or perhaps something that they wish to celebrate.

Think of a creature

1. Think of a creature that no one has seen before. How does it move, what does it eat, where does it live?
2. You can either draw your creature onto paper or make it out of recycled material, you could even use natural material such as sticks and leaves.
3. When the children have finished, get them to give their creature a name.
4. Go around the group and get each child to talk about what they have created.

Beetle magnets

Cut out the shape of your beetle from foam and finish with googly eyes – attach a magnet or use to make a badge, sticker or to decorate a card.

Butterfly models

1. You will need old-fashioned wooden pegs, tracing paper, card, colouring pens, thin wire and glue.
2. Trace a butterfly wing shape onto card, one for each child. There is a blank butterfly in the appendix.
3. Ask the children to colour in the butterfly shapes like a particular butterfly or do fantasy butterflies.
4. Colour the pegs to match, glue the wings onto the pegs and twist garden wire round to form the antennae. Each antennae can be rolled into a ball to form the tip, add legs if you wish and even a curly tongue.
5. You can hang the butterflies around the room.

Spider fingers

1. Cut a rectangle of paper about 8cm by 9cm.
2. Fold the short side down about 2 cm to make a crease, then open up again.
3. With the crease horizontal, cut the larger area of paper up to the crease to create the spider's 8 legs.
4. Wrap the spider around the child's finger and fasten with sticky tape or glue.
5. Remove and decorate. The legs can be bent or curled.

Spider prints

Use a washable ink pad or a small amount of poster paint poured over a pad of kitchen roll in a saucer or lid. Ask a child to press their thumb or finger into the ink and make a thumb print onto a piece of paper or card. Using a pen they can draw on legs, eyes or add googly eyes. A variation is to make a print from any part of the hand and use their imagination to make all sorts of minibeasts



Environmental art

Art can be used to interpret the environment and we have wooden display boards at the beach end of the Higher Moors nature trail on St. Mary's and an interpretation bench on St. Agnes quay and a bench on Bryher near to the community centre.

The wooden boards and benches are very tactile and ideal for taking rubbings. The pictures show the unique nature of Scilly's heathlands and grazing animals; they were drawn by artist Mike Langham. How many plants and animals can you see?



Bryher ©



St. Agnes ©

The following plants and animals can be found in the pictures:

Birds - Stonechat, Wheatear, Kestrel, Gulls, Rock pipit

Mammals - Cows, Ponies, Scilly shrew

Insects - Scilly bee, Minator beetle, Cricket, Oil beetle, Small copper butterfly, Common blue butterfly

Plants - Heather, Gorse, Dwarf pansy

Lichens



Higher Moors, St. Mary's ©

Words of appreciation

The aim of these activities encourage a child's appreciation and respect for nature rather than being able to name parts or identify types. There is a current trend for emotional literacy within education and it is this aspect of a child's self-expression that will capture the wonder and joy of living within the natural world.

A – Z

This activity introduces heathlands, you will need a page with A-Z down the side.

Ask the children to find something beginning with every letter of the alphabet and write it down on the paper. Points for the ones who get the most.

I would rather be ...?

To help in our appreciation of the natural world and recognise its inherent use in the language of our everyday expressions, children could be asked to choose one of a pair of words or phrases and possibly give a reason why. They use their choices as metaphors for their own beliefs and feelings of that time.

Paired words could be:-

'Would you rather be a Tree or flower? Gorse or heather? Blue or green? Sea or land? Rabbit or bird?

1. When all answers have been given, try and find a person or persons who have the same answers.
2. In these formed groups consider in what ways we are alike and how the words have opened up our perceptions or maybe even restrict our use of nature as metaphors or similes.

Unscramble

Using the following letters try and make as many different words as you can.

ELNAHTDAH

- 1 point for a 3 letter word
- 2 points for a 4 letter word
- 3 points for a 5 letter word
- 4 points for a 6 letter word
- 5 points for a 7 letter word

A Postcard from?

1. Invite each person to choose one of the natural objects, animals or creatures from the heathland.
2. Challenge them to write in the role of their chosen object or animal on a post card telling the reader about how they got there and what happens over the year.
3. What might happen in an extreme form of weather such as a summer drought, a winter gale, or torrential spring rain?

Break the code

1. Write down the alphabet and underneath allocate each letter a code. This could be a number, a different letter of the alphabet or a new made up symbol.
2. In pairs each child devises their code and sends a word linked to the heathlands to their partner.
3. Unless they are supreme code breakers they will have to provide their code for reference.

For example:

| | | | | | | | | |
|---|---|---|---|---|-------|---|---|---|
| A | B | C | D | E | word | B | E | E |
| 1 | 2 | 3 | 4 | 5 | codes | 2 | 5 | 5 |
| B | C | D | E | F | | C | F | F |
| Ø | Z | ! | % | + | | Z | + | + |



Scilly bee © Jenny Nightingale

The countryside has inspired poets for many years and in this country there is a tradition of writing poems and novels that marvel at nature. Here are a few poems that you may enjoy.

The Grass has so little to do

The Grass has so little to do
A Sphere of simple green
With only Butterflies to brood
And Bees to entertain
And stir all day to pretty Tunes
The Breezes fetch along
And hold the Sunshine in its lap
And bow to everything

And thread the Dews, all night, like Pearls
And make itself so fine
A Duchess were too common
For such noticing

And even when it dies to pass
In Odours so divine
Like Lowly spices, lain to sleep
Or Spikenards, perishing

And then, in Sovereign Barns to dwell
And dream the days away
The grass has so little to do
I wish I were a Hay

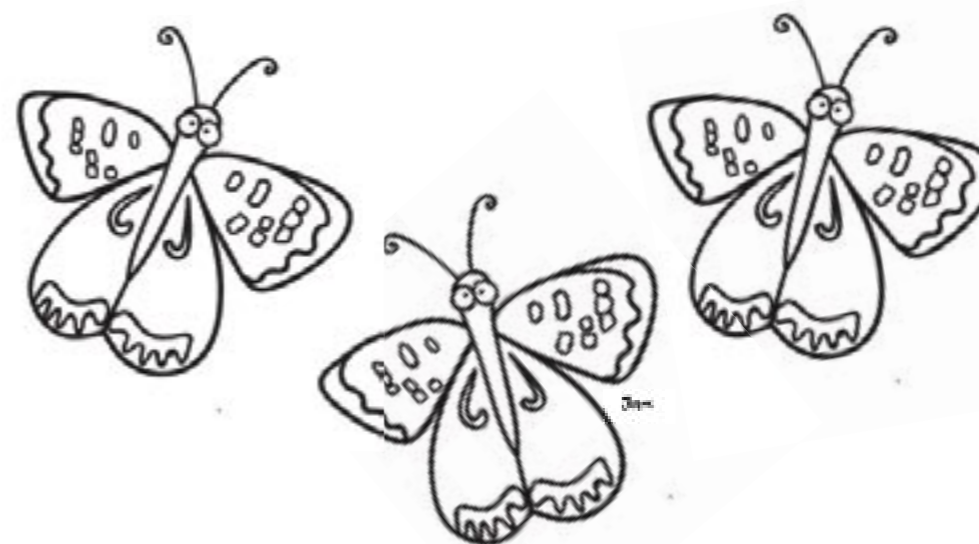
Emily Dickinson

Three Butterflies

Flat on my back
beneath the freckling sun,
three butterflies sail around me,
and very gently, one
settles on my burning face,
folding his dusty wings,
as if he liked the place:
and one hovers a little while
before he decides to land
with cool and delicate feet
upon the thumb of my right hand,
but soon changes his mind,
and does not stay
to keep me company,
skimming soundlessly away
into the flowers and trees:
and one goes flittering around
my head at perfect ease,
and will not be my guest.

But how glad I am
that two of them made me
their resting place a minute or so,
believing I was a flower or tree.

Leonard Clark



Small Copper butterfly © Jenny Nightingale

Horse

The picnickers were sleeping when I,
deciding to be an enormous black horse not seen
in the corner of their field, strolled over.

They had a tartan rug, and a
thermos flask, and they had unwrapped
and eaten little triangles of processed

cheese, with tomatoes. They had been
playing cards among the thistles and
water-biscuits, and had fallen asleep

in the very hot sun. So I was a sudden, black
alarming shadow standing over them, though really
just inquisitive. When one of them heard the sound of my
breath,

and woke, having dreamt of dragons, and
leapt up and shouted, I had to pretend to
be frightened of them and gallop away.

Alan Brownjohn

Magic

Through my lens, this greenfly on a rose leaf
Becomes in an eye-wink a terrifying monster
Crouching upon the dark-green leathery surface:
Beside him shines a bright round bubble of dew.
How odd, how fearful the world must look to him
As he stares through HIS lens! He sees my face
(Forehead and curving nose and one huge eye
Looming down coldly at him, prying and peering);
My cat, green-tiger-striped with shadows: and that lizard,
A sliding pterodactyl, as it passes
Through the tall, tangled forest of the grasses.

Clive Sansom

Haiku poems

Haiku poems are a poetic style of Japanese origin. They don't rhyme, have three lines and contain 17 syllables. The first line has five syllables, followed by seven and then five. Writing a haiku could also draw out the descriptive elements of our surroundings and our connections with it.

**The down is purple
A carpet of wild heather
Laid beneath our feet.**

**Lazy afternoons
Light beautiful butterflies
Like confetti dance.**

Senses poems

This activity is another to help in the tuning in of our senses to the heathlands.

1. Sit quietly on the heath and look around.
2. Each person in turn chooses a word or phrase that describes the heath e.g. varied, windy, flat, bare, lush, colourful.
3. Ask someone to make a list of the words and reflect on how many of the descriptions rely on visual clues.
4. Now ask the children to shut their eyes and maybe lie down on the heath. After a few minutes ask them to give a new word or phrase to describe their environment - one that doesn't need sight e.g. scented, peaceful, quiet, breaking waves, whistling wind.
5. List these words and phrases.
6. Later the children could select the best descriptive words or phrases and write a poem using their ten word selection.
7. Alternatively just enjoy the words as they give form to your senses and the heath.

Parachute games

You will need a play parachute for these games.

Tunnels

1. Stand everyone evenly round a play parachute holding it with both hands at waist height.
2. Fold the chute in half by choosing one half to walk towards the other half.
3. Spread everyone evenly around the folded chute.
4. Get those holding the curved edge to walk towards the straight edge till they meet.
5. Each person keeps hold of their edge with one hand and grasps the opposite edge with the other so that they are interlocked and the chute forms a tunnel. The tunnel can now be used for a variety of things.
6. Get the children to pretend to be caterpillars and crawl through the tunnel, which is their cocoon. When they crawl out they become a butterfly and fly away or get the children to think of an animal and crawl through the tunnel and start to act like the animal they are and the others have to guess what it is. The tunnel could also be a burrow for rabbits and the children hop in and out.

Different seasons

1. Place 4 large pictures of each season at each corner of the parachute and get the children to stand in the middle.
2. Describe what is happening to a particular plant or animal and the children have to run to the picture of the season that they think you are talking about.

You could change this to different habitats and describe the plants and animals found in them. The children then have to run to the habitat they think you are talking about.

Diving for treasure

1. Everyone spreads around the parachute and picks it up to waist height holding it taut with knuckles showing.
2. Put pictures of 8 animals under the chute such as butterfly, spider, stonechat, bat, rabbit, beetle, Scilly shrew, bee. Make sure that there are enough cards for everyone in the group e.g. 1 of each for 8 players, 2 of each for 8-16 players 3 of each for 17-24 etc.
3. Go around the chute telling each person what animal they are.
4. Now the leader shouts out the name of an animal and those animals have to dive under the chute and find their picture as the others mushroom the chute by lifting it into the air.
5. The animals must find and bring out their picture before the chute falls down.

You can adapt this game for food chains, plants or trees. And you could call out descriptions of things instead of their names.

What's the weather?

The leader calls out weather conditions and the players simulate them with the play parachute.

| | |
|-----------|---|
| Sunshine | hold at waist height and pull taut and smile. |
| Rain | drum fingers of one hand on the parachute whilst keeping it taut with the other hand. |
| Breeze | shake the chute gently by moving hands up and down in turn. |
| Storm | as for breeze but move arms up and down a lot. |
| Hurricane | walk clockwise getting faster and faster then turn the other way. |

You can make up a story about a day out and bring in the weather as you go so that the children can do the actions.

Move in natures way

Use these words to help encourage different movements of self expression.

| | | | | |
|----------|---------|---------|----------|---------|
| Bend | Explode | Leap | Rock | Squat |
| Bob | Embrace | Lie | Roll | Squeeze |
| Bounce | Fall | Limp | Rub | Squirm |
| Bump | Flap | Lurch | Sag | Stagger |
| Bustle | Float | Meander | Scamper | Stretch |
| Clamber | Flow | Melt | Scatter | Sway |
| Cling | Flutter | Nudge | Scramble | Swell |
| Collapse | Fly | Ooze | Scurry | Swing |
| Collide | Gallop | Open | Shake | Swoop |
| Crash | Glide | Pace | Shiver | Thrash |
| Crawl | Grasp | Peck | Shudder | Tilt |
| Creep | Gush | Pelt | Shuffle | Topple |
| Crumple | Hobble | Pluck | Skip | Trickle |
| Curl | Hop | Plunge | Slither | Trudge |
| Dash | Hover | Poke | Slop | Twirl |
| Dip | Huddle | Pop | Slosh | Vibrate |
| Dive | Hurtle | Pounce | Soar | Waddle |
| Drag | Jerk | Prance | Spin | Whirl |
| Drift | Jolt | Pulsate | Spiral | Wiggle |
| Droop | Juggle | Push | Splash | Wither |
| Drop | Jump | Ramble | Sprawl | Wobble |
| | Kick | Reach | Spread | Wriggle |
| | | Rise | Spring | |

Dance like a bee

Maybe the group could try dancing like a bee. Bees communicate with each other by dancing. They have lots of dances which mean different things such as - 'I've found great nectar, its over there'.

Demonstrate a figure of eight dance - Wiggle your bottom in the direction of the flower with the nectar. Build on the codes such as a short wiggle means that the flower is close to the hive and a long wiggle means that the flower is further away. Can half of the group perform a dance and direct the other half to the nectar?

Animal Sounds

Give each participant a name of an animal that could be used to graze heathland. For example a sheep, cow, pony, rabbit or goat. Ask them to make the noise and movement of that animal and find others who are the same animal. This is very useful to get children into groups.

Travel

Make a chart of the advantages and disadvantages of flying, walking on all fours, walking on two legs or walking on many legs. For example a butterfly, a shrew, a person, a millipede.

Move my way - role play

Without wanting to frighten people these ideas for role-play are more like creative movement or dance. This kind of role playing does not rely on words yet allows you to get into the moods, qualities and behaviour of nature's life forms.

Choose an animal, plant, tree or rock - anything - and pretend you are that. Co-ordinate your body and imagination to experience its existence. Adults will have to let themselves go and search for the pure fun and the uninhibited joy of forgetting the self and being something else. The more you can put your whole being into pretending, the more you'll take on the character and feelings of your subject. Having fun as a group will help in making people feel less self conscious. Encourage a supporting and non-critical atmosphere when you play this game. Let people develop at their own pace without fear of comparisons or competition.

1. Try being a snake or a caterpillar inching along the floor.
2. Be the small bird hopping beneath and between the gorse.
3. Take on the shape of the waves of heath and quiver as the wind passes up your back working as a group to get a ripple effect.
4. Think of the butterfly as it alights on the heather bell and quickly moves on looking for attractive colours where it can swiftly feed.

See the 'Little Guide' for further ideas.

Serious role play

In a more serious vein a public meeting could be held on whether grazing stock should be brought back onto the heathlands.

Representatives could include:

- the Wildlife Trust
- the Council
- a tourist
- the owner of a local camping site
- a dog walker
- a bramble
- a pony
- a child

It is interesting to see if the children find compromise or end in deadlock.

Thinking

Think creatively to try and find ideas and key words to the following questions

If you couldn't hear anything what would you miss most?

If you couldn't smell anything what would you miss the most?

Which thing would you miss the most if you couldn't see?

How do you think your life would change to the above?

You could try grouping them into logical areas to help your thinking.

What if trees were made of chocolate!

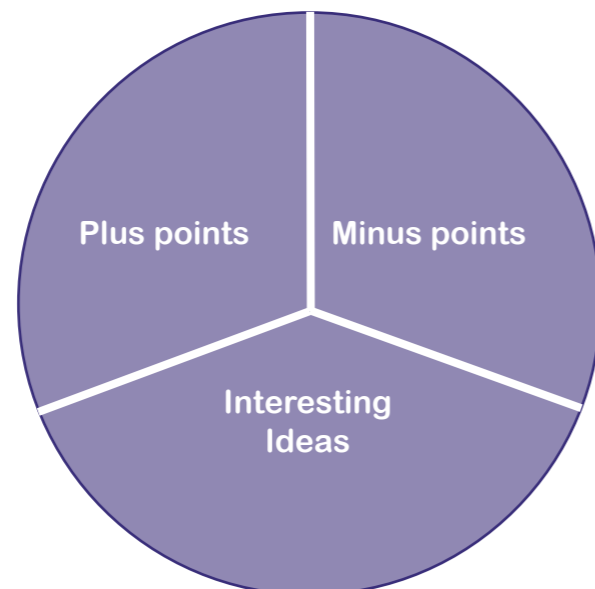
What if insects could talk?

What if people could fly?

Think of 5 smells that you like. Can you explain why you like them?

What do you think this proverb means:

'A bird in the hand is worth two in the bush'



Thinking

Did you know that the famous botanist Linnaeus who was in such delight at seeing the gorse bush was also the same man who gave a Latin name to the chocolate tree?

Think of 5 ways to end this sentence

The heathlands are.....

I wonder why.....

Would you rather have a playground on the top of the hill or a heathland area?

Give 7 reasons for your choice.

What do you think is the best part of the year out of **SPRING, SUMMER, AUTUMN and WINTER?**

Give 7 reasons for your choice.

You have discovered a new plant; draw a picture and describe what it smells like, does it do anything unusual?

Owls and crows

A useful game for reviewing newly learned ideas and concepts.

1. Divide the group into two equal teams, the owls and the crows.
2. Line up the two teams facing each other about 1 metre apart.
3. About 10 metres behind each team mark out a line for Home.
4. The teacher makes a statement aloud for example, Sensory : 'The wind is coming from behind the crows', Conceptual : 'A gorse bush... Identification : (after pointing to a cloud) 'That's a cirrus cloud'
5. If the statement is true then the Owls chase the Crows, trying to catch them before they reach their own home base.
6. If the statement is false, the crows chase the Owls.
7. Anyone caught must join the other team.
8. If the answer isn't obvious to the players, there will be confusion with people running towards each other and others running back to their bases.

During the pandemonium, the teacher stays quiet and only when the action has calmed down should the answer be revealed.

Thinking

Name 20 things

Think of what you have been learning on the heaths. Either on your own, in pairs or as a whole group name 20 things you might find on the heathlands. Arrange them into four groups.

If doing this as a group stand in a circle and name yourself as a plant, animal or bird that you might find on the heath. Move around into your groups.

What am I or 20 questions?

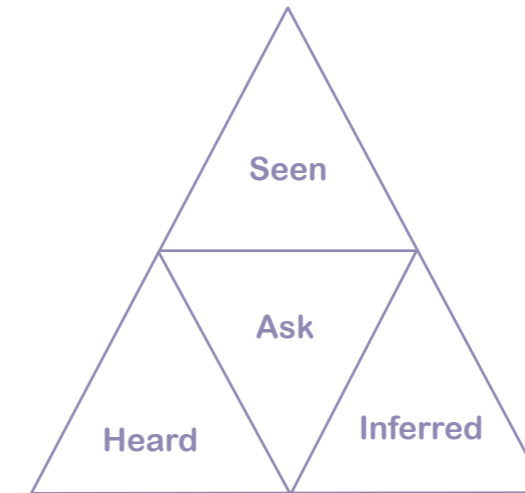
1. Pin a picture or the name of a bird or animal on the back of one of the children. Let the other children see what they have become.
2. The child with the name on their back now finds out what they are by asking questions.
3. The other children can answer only yes, no, and maybe.
4. Limit the number of questions to 20 so that it does not go on all day!

Instead of using animals you could use flowers, trees or different seasons and habitats.

You can also do this activity another way with one of the children thinking of a plant, animal or mineral from the heathland. The rest of the group have 20 questions to try and identify the selection again. Answers can only be yes, no or maybe.

Seen, heard, inferred and ask

1. Use the triangle to reflect on the things that have been *seen* and *heard* when out on the heathland.
2. What could they infer?
3. What about questions they might *ask*.



Use this if you are able to view the short DVD on the work of the Isles of Scilly Wildlife Trust.

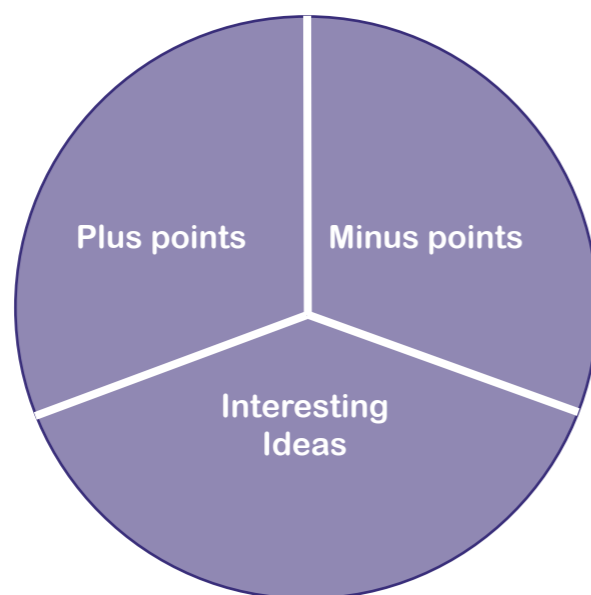
Perception

1. Choose one of the following people who were seen walking over the heathlands on one day:
 - Birdwatcher
 - Wildlife Trust volunteer
 - Walker/Hiker
 - Artist
 - A photographer
 - A person having a picnic
2. Imagine what they might have seen on the heathland.

DVD

In this pack you there is a DVD that shows a 3 minute film about the work that the Isles of Scilly Wildlife Trust carries out.

1. Watch the film
2. Do a plus, minus and interesting. For example one thing that sounded good, one thing that was difficult and one thing that was surprising.
3. These can be written on post it notes and collected and used to create a PMI Circle.
4. Discuss and compare results.



This activity can help to focus attention when watching the DVD and children can express and justify personal choice. It encourages acceptance of other viewpoints as well as demonstrating what they have learned. You can also use the triangle = seen, heard, inferred and ask on the previous page.

Another activity is to record any thought or comment about the Wildlife Trust on a post-it-note and use a bulls eye to arrange comments according to how important they think they are. Can the group agree on what should go in the bulls eye?



Appendix

Notes:

Appendix worksheets can be downloaded from www.ios-wildlifetrust.org.uk/wavesofheath or contact the Isles of Scilly Wildlife Trust and we can forward them to you.

Illustrations by www.jennynightingale.co.uk and wooden board pictures are copyrighted, you are welcome to use and photocopy any other illustrations and appendix.

DVD

Description circles

large

tall

short

dry

natural

man made

small

round

furry

spongy

has a
colourful
centre

has 2
petals

smooth

prickly

soft

has a
round
stem

has a
non-
round
stem

has 5
petals

hard

shiny

dull

has hairs
on stem

has hairs
on leaves

has 4
petals

round

slimy

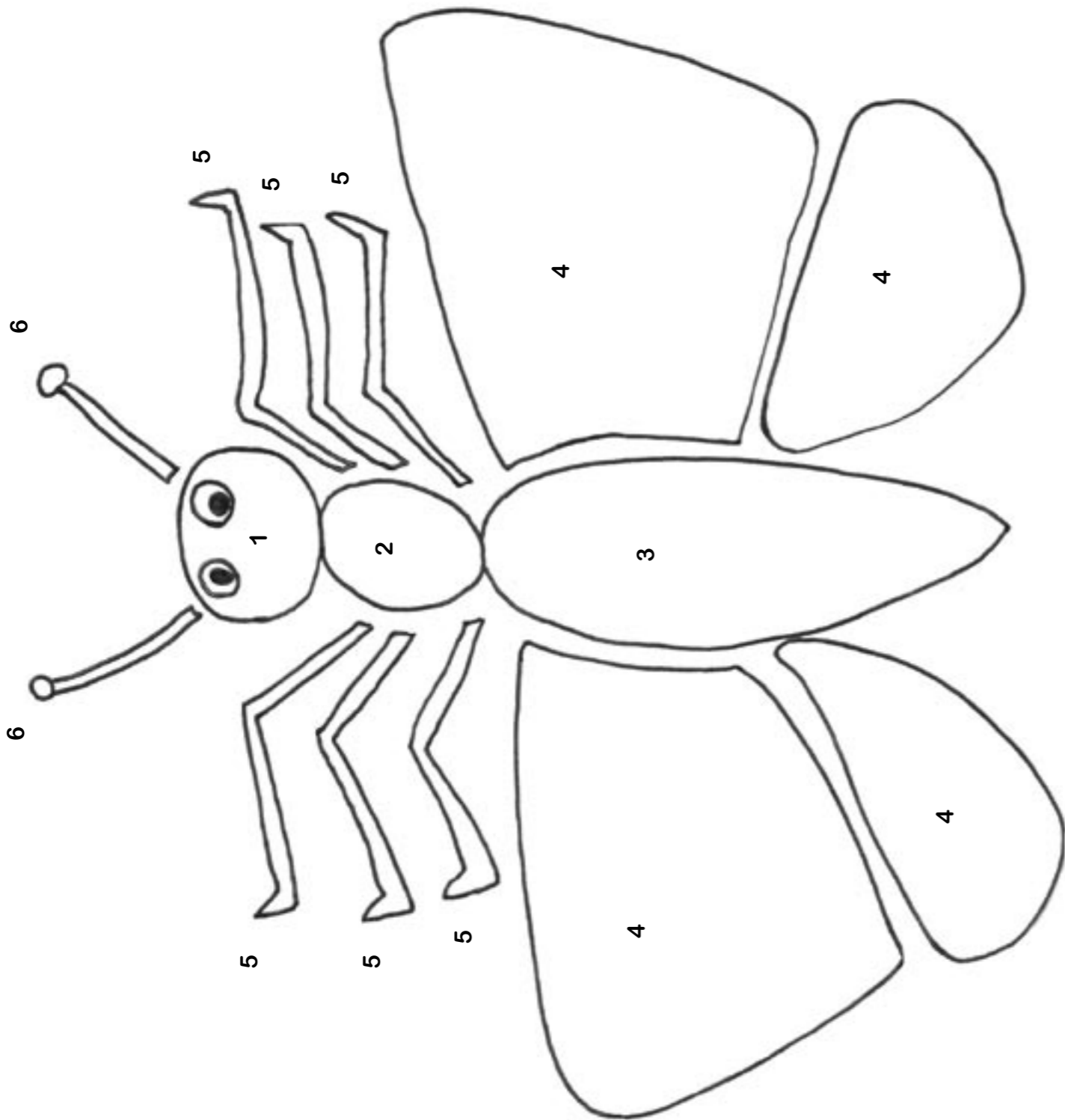
wet

has
spikes

cold

warm

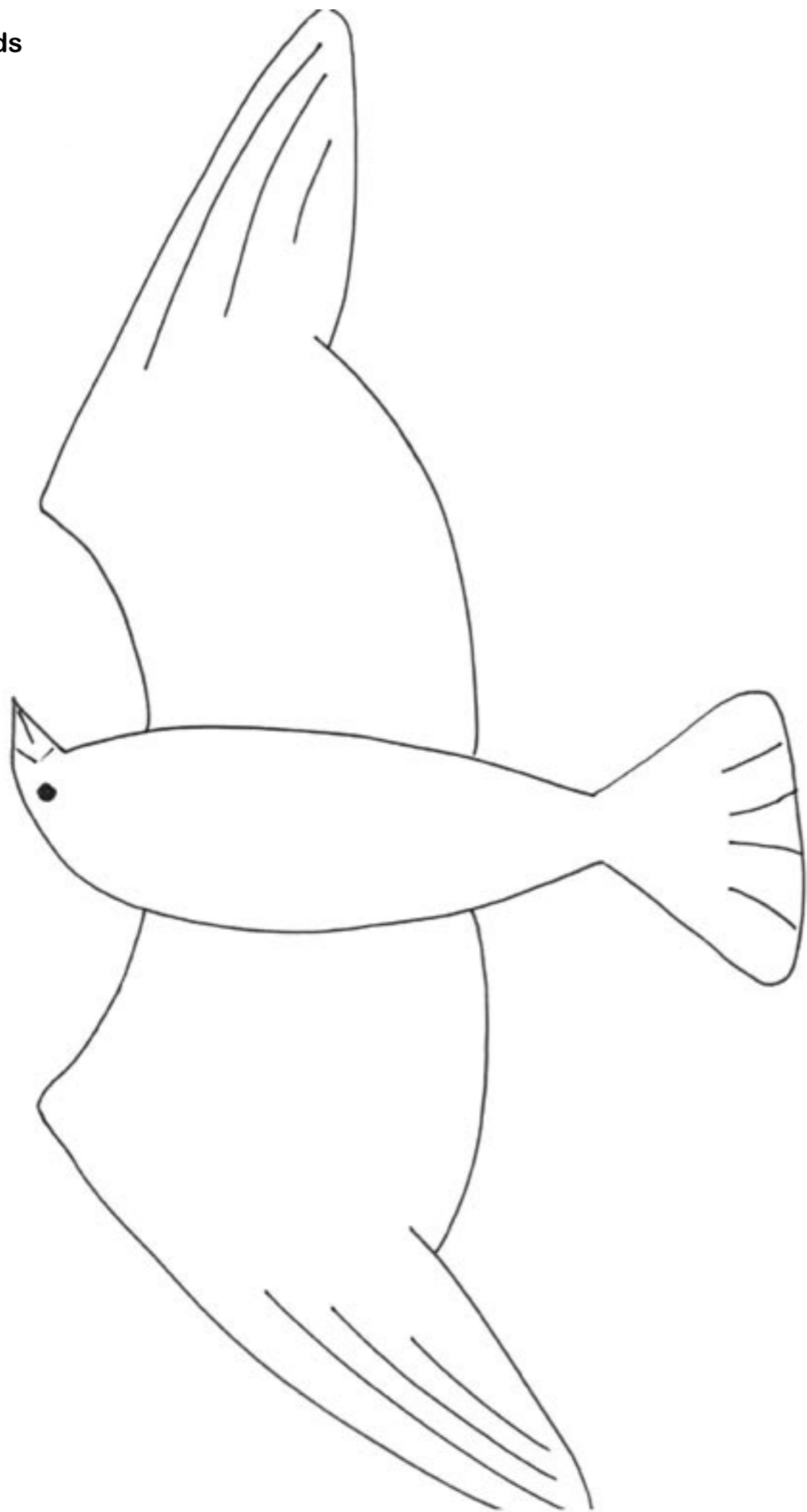
Butterfly bodies



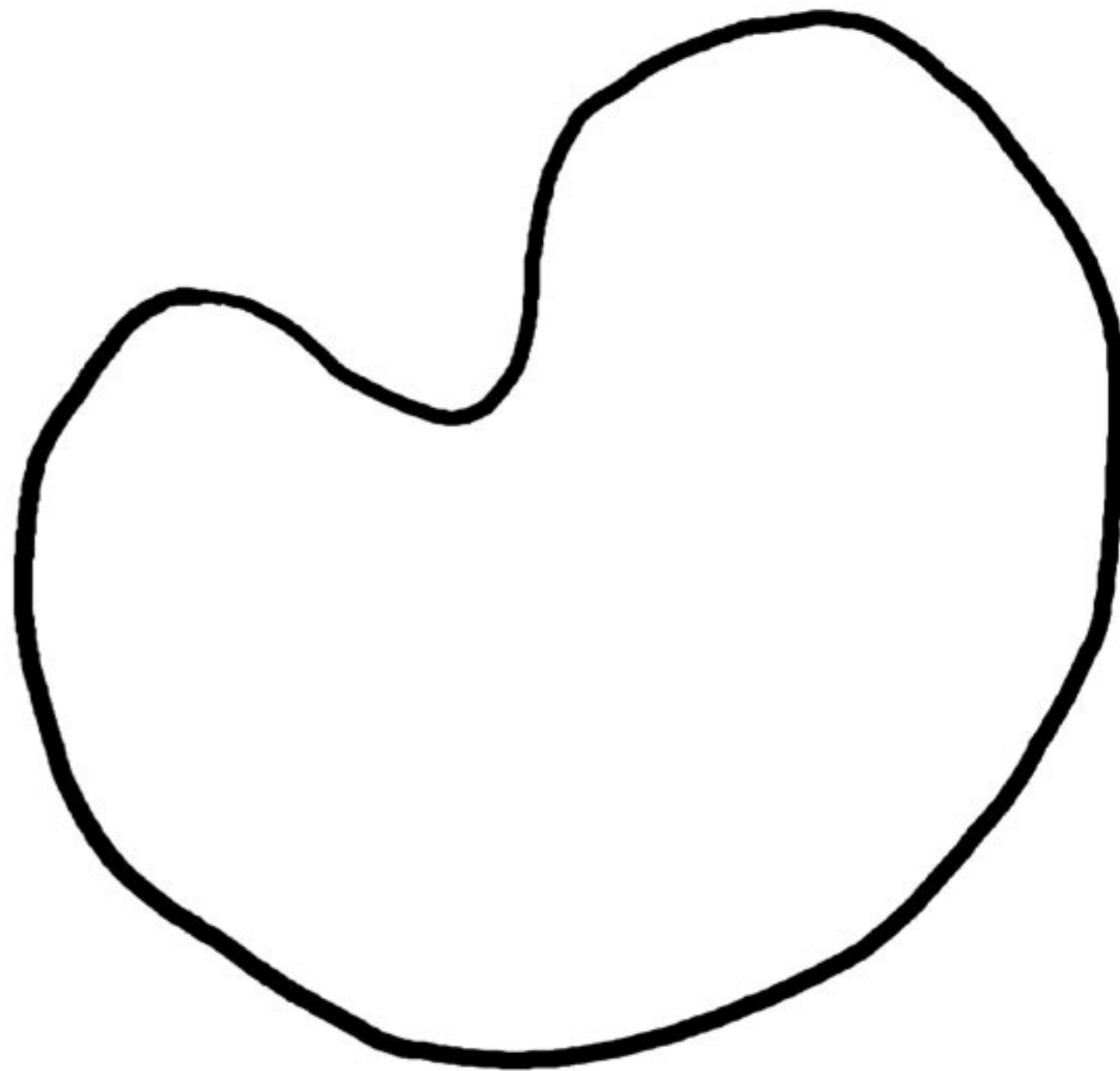
Bird Watching

| | | |
|--|----------|--------|
| Name: | Date: | Time: |
| | Weather: | Where: |
| Description of bird: for example note the colour, size, markings, shape of beak, shape of tail, what is it eating, is it singing, is it flying. | | |
| Drawing of bird | | |

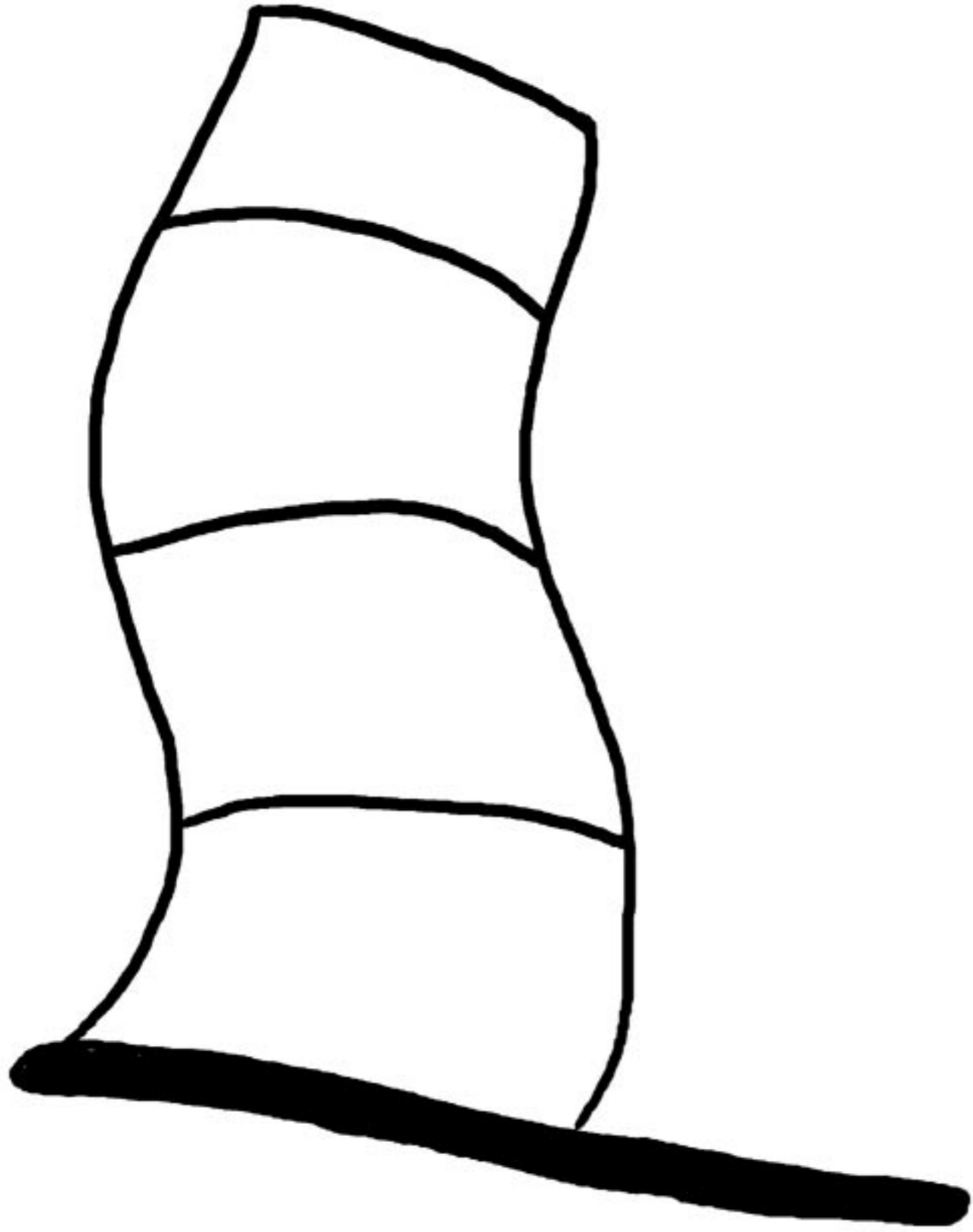
Flapping birds



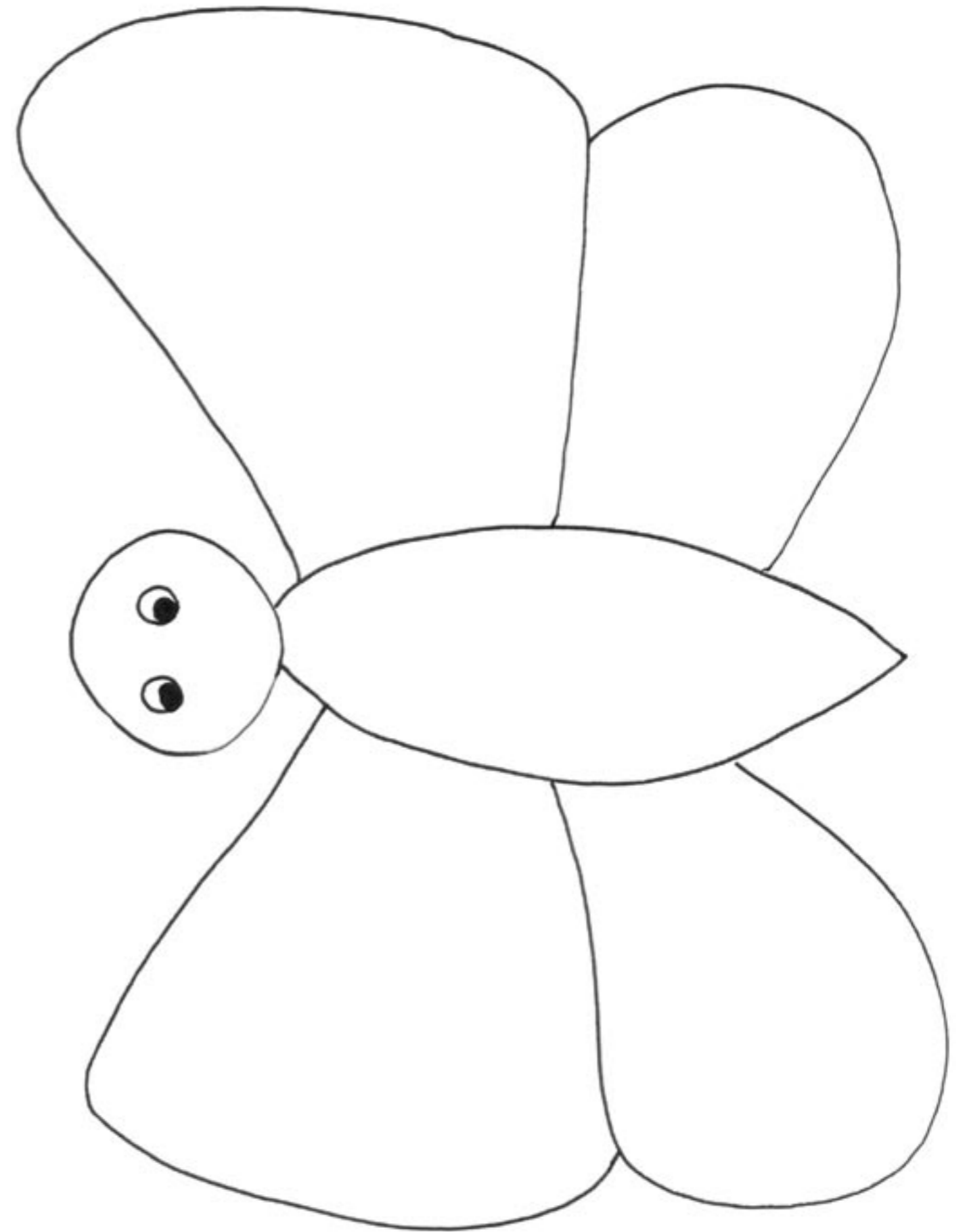
Artisits palette



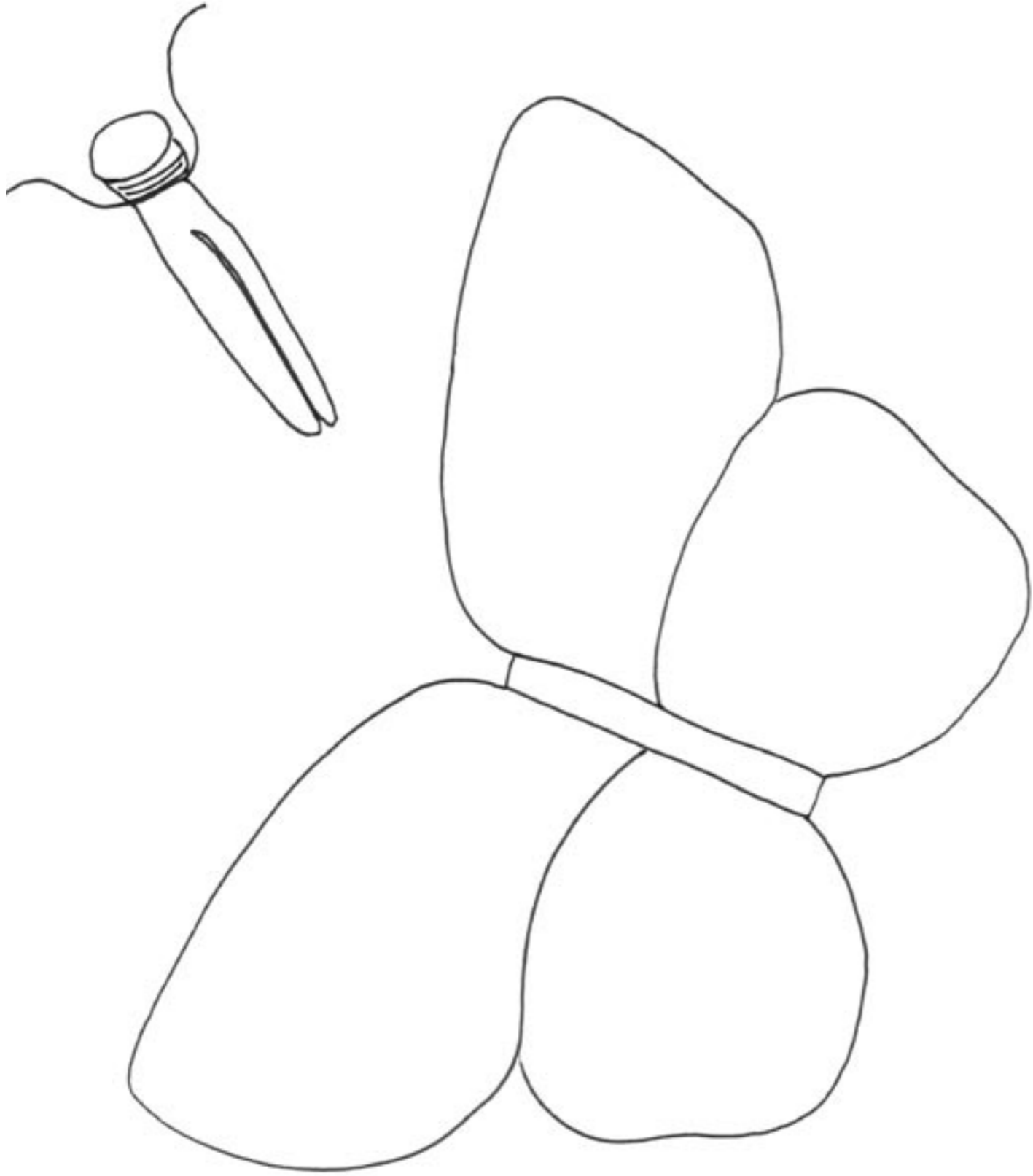
Colours



Camouflage butterflies



Butterfly models





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