BLUE SKY LEARNING

25 Activities for helping children learn in a more fun and effective way, using the environment around them.

Produced by Global Action Nepal

Gan Research & Learning Resource Center

Introduction

For thousands of years humans have used the natural environment and local community to learn. It is only really in the last 150 years that classrooms have taken over as the main way of delivering education. And while classrooms have certainly helped reach millions of children worldwide, they can also be constraining and actually reduce educational outcomes - especially in situations where classrooms are small, dusty, dark, and contain fixed desks and benches. Therefore, it is important not to forget that the outside, and the local community, can be fantastic resources for learning.

The booklet contains a number of ideas and activities which can be used in this way. Some of the activities are general, while some are more specific, for use in certain subject areas. It has been produced by the GAN Research and Learning Centre. Its main aim is to provide a range of activities which can by used by Nepalese teachers and educational professionals in their own school environments. GAN positively encourages this booklet to be as widely distributed as possible without charge.

All feedback, comments and recommendations for improvements are welcome. Please email globalactionnepal@gmail.com or via www.nepalaction.global.

Chris Sowton
Global Action Neapal
November 2015

GENERAL ACTIVITIES

1. ASK ME ANYTHING

Rationale

Kids love asking questions. All parents know this very well. However, in the Nepalese classroom, children are often not encouraged to ask questions. This activity encourages children to develop their critical thinking skills, improve their confidence, and enables them to better know their local community.

Stages

1. Students identify a topic area which they want to know more about. This may be general (e.g sports, music), an issue specific to their local area (e.g. monsoon flooding; waste management) or an issues specific to their school (e.g. corporal punishment; teacher attendance).
2. Students identify the group(s) or people they want to interview in the local community.
3. Guided by the teacher, students create a list of questions they want to ask. These questions may ask for information which is quantitive (number based) or qualitative (word based), e.g.:

Quantitative information

- How many times in a day / week / month do you…
- Rank from 1-5 (where 1 = very dissatisfied; 5 = very satisfied) …

Qualitative information

- What do you think about …
- Can you give an example of …

4. The students then go into the local community, and ask the relevant people these questions. They record the information provided.
5. Back in the classroom, students compare the information which they have gathered and try to identify general trends, interesting points and so on. They might ask questions like 'Do men / women have different opinions' or 'Do old people / young people have different opinions?'

Follow-up

- Students can create graphs, pie charts etc based on any quantitative data.
- Students can produce a report based on the information here.

2. CHAIN STORY

Rationale

People like telling stories, and stories are a fun, interesting way of developing knowledge and understanding. This activity can be useful for Nepali / English language, for practising specific vocabulary items or grammatical structures which have been recently used in class.

Stages

1. The teacher begins a story with a sentence like: "It was a wet and windy evening, and Ram was lost in the jungle."
2. In turn, each student must add a sentence to the story. This goes round the whole class, who together make up the story.

3. WHAT DO YOU DO?

Rationale

Understanding how things work in your local community can be very useful. This can make children feel more a part of the community - and also the community can feel more a part of the school.

Stages

1. The teacher asks students which kind of job they might like to do in the future (e.g. police officer / farmer / mechanic etc.). The teacher then asks whether the students know much about these jobs and what they actually do.
2. The teacher / students identify people in the community who do these jobs, and approach them to see if they would be willing to talk to the students about what they do. Alternatively, students could go and see this person in their place of work (e.g. police station / field / garage) where they can ask questions to find out more.

Follow-up

- Students talk / write about whether they would like to do each job - why / why not?
- If they can meet with several people, students decide which job they are most interested in and why.
- Students do further research about who they can gain the skills / knowledge necessary to do that particular job.

4. DIRECTIONS

Rationale

This activity helps students listen to each other more, to follow instructions and to trust each other. It can be done in either Nepali, English or another language.

Stages

1. The teacher takes the class outside, and divides the students into pairs - one is a ‘speaker’ and one is a ‘listener’. With larger classes they could be divided into groups, with one ‘speaker’ and the rest ‘listeners’.
2. The listeners are all blindfolded. The speaker must direct them to a particular place (e.g. a tree, a rock). The speaker should say ‘walk three paces forward’, ‘turn right’, ‘watch our for Sita’ etc.
3. Make it a competition to see who can get there first.

ACTIVITIES FOR MATHS

5. JEWEL HUNT

Rationale

Learning about numbers only from books, and in theory, can be challenging, ineffective and boring. This is especially true for young children. This is an example of an activity which can make it more interesting and fun.

Stages

1. The teacher hides a set of interesting objects (e.g. pretend jewels, of different shapes, sizes and colours) around the outdoor area, then take the children on a hunt to find them. After a set amount of time, meet back together to talk about the 'treasure'.
2. The teacher asks a series of questions about them which tests their mathematical ability:

- How many jewels have you found?
- What are the different ways the jewels could be divided?
- Which group has collected the most? The least? What is the difference between them?

6. SHAPE HUNT

Rationale

Different shapes are all around us in nature - this activity helps students to recognise this, and recognise the value of learning about different shapes in their local community.

Stages

1. The teacher takes the students outside.
2. Students are divided into groups, and asked to find as many circles / squares / rectangles as they can in your local area, and make a list. They can also write down things which they cannot bring back (e.g. the sun for a circle / a TV for a square).
3. Back in the class, compare the different objects found by the groups.

7. SYMMETRY

Rationale

Symmetry is an important mathematical concept.

Stages

1. The teacher takes the class outside. She lays down a skipping rope (or any long, thin object).
2. Two children stand opposite each other on either side of the rope (imagining they are looking in a mirror). One child makes a shape and the other child makes the reflection. Increase the difficulty by allowing movements.
3. Get other students to do this - even in groups. Once they understand the concept, they can do themselves - if materials are not available, they can simply draw a line in the dust.

8. I AM A NUMBER

Rationale

The purpose of this activity is to get students to understand the different properties of numbers better.

Stages

1. The teacher takes the class outside.
2. Every student is told they are a number.
3. The teacher then gives out a series of instructions. Before doing this, she might want to concept check the students' understanding of some of the key terms. After each one, she might want to randomly check some of the students to see they are doing it correctly. Suggested instructions are as follows:

- "Even numbers jump up, odd numbers sit down"
- "Numbers between 5 and 11 form a circle."
- "Numbers larger than 8 shout 'hello.'
- "Prime numbers run away."

Follow-up

- Students can give instructions to their colleagues.

ACTIVITIES FOR ENGLISH

9. WHAT DO YOU DO?

Rationale

Many people learn most effective when they can touch an object, or do an action, and say the associated word at the same time. This activity can help develop vocabulary - not only in recognising words, but understanding how to use them.

Stages

1. The teacher takes the class outside for a walk.
2. As they are walking, the teacher picks up an object and says the English for word - e.g. ‘stone’. She then passes this to one of the students, who does the same thing, who the passes it to another and another, all the way to the end.
3. This process is then repeated for other objects - twig; flower; bottle; hair etc. All of these items are put into a bag(s) which the student(s) at the end of the line carry.

Follow-up

- These items can be kept in the classroom and used for revision.

10. FIND AND COLLECT

Rationale

This activity tests students’ ability to process information, and to think critically.

Stages

1. The teacher takes the class outside.
2. The teacher provides a series of clues, and the students then have to go and physically get the appropriate object. For example:

- “I can be many different colours, and I smell very nice” (flowers)
- “I am used to carry things.” (bag)
- “Without me, everything would die.” (water)

Follow-up

- Students make up their own clues, and get their classmates to get the appropriate object.

11. WHAT AM I?

Rationale

This is a fun activity for practising asking / answering questions which involves real-life objects.

Stages

1. Each student should write the name of an object or person on a small piece of paper. A small piece of sellotape should be put on each.
2. The teacher collects all these pieces of paper and distributes them randomly. Students should NOT look at the piece of paper, but should stick it on their forehead (if there is no sellotape, they should hold it there).
3. Students must then ask questions to find out what / who is their object / person. Other students are only allowed to answer yes or no.

Follow-up

Students write a brief description of their object, using some of the information / questions used (e.g. an apple is a fruit which is small, round and usually green or red).

12. PREPOSITION PANIC

Rationale

Prepositions (words like *in, on, at, under, over*) are a difficult word class in English. Students often use them incorrectly. This activity focuses on getting students to learn and practise these words kinaesthetically (using physical actions and movement) to better help them understand.

Stages

1. Teacher takes students outside the classroom.
2. The teachers says a sentence with a preposition in it. Students must then act this out, but importantly they must say the sentence at the same time. The emphasis should be on doing this as fast as possible. Example sentences include:

- I am jumping **on** the ground
- I am laughing **in** the classroom
- I am looking **at** my friend

3. Once students understand the activity, they can be put in charge of their own small groups of 3-4 students, where they give the sentences. The teacher should circulate to check that each sentence is correct and contains a preposition.

PHYSICAL EXERCISE

13. IMAGINARY OBSTACLE COURSE

Rationale

A real 'obstacle course' contains lots of difficult objects to climb over, across, through or under, as in the picture opposite. In Nepalese schools, obstacle courses do not exist. However, this should not restrict the imagination, as it is possible to create a virtual obstacle course (which exists only in the mind).

Stages

1. Teacher takes students outside. She explains that they are going on a walk in the jungle, and that they will face a number of obstacles on the way.
2. The students begin walking. Randomly, the teacher shouts out various words. A suggested list appears below:

- Tunnel (go down on their arms and knees)
- Fence (have to jump high)
- River (have to jump across)
- Stepping stones (going tentatively across a river)
- Crocodile (run in a zig zag fashion)

Follow-up

- Students can be the jungle leader as well, giving instructions to their fellow students.
- Students can play by themselves in their breaktime or free time.

14. KEEP MOVING

Rationale

The aim of this activity is to get the students to do a number of fitness activities in quick rotation - just 30 seconds for each one. The different 'stations' should be set up around the playground / outside area. The children will remain motivated because of the quick changes between each activity.

Stages

1. The teacher takes the class outside, where she explains the different exercises / activities. Where equipment is needed, this should be set up. A list of suggested activities which require minimal equipment is below - but there will be many more to add:

- Lifting up bottles of water
- Hopping as far as possible
- Weightlifting, using a student
- Doing as many catches as possible (with a ball or other object)
- Doing press-ups
- Doing sit-ups
- Skipping

2. Divide the students into group - there should be the same number of groups as activities. They each start on their station doing the activity. After 30 seconds, the teacher shouts 'change' - they have 10 seconds rest, and then start again.
3. The circuit can be repeated as many times as you like.

MUSIC

15. NATURAL ORCHESTRA

Rationale

Music is important, but often there are no musical instruments which people can use. This activity enables students to create their own music with what is around them.

Stages

1. The teacher asks the students to name some musical instruments which they know (e.g. guitar, violin and, importantly, the human voice). The teacher asks if any of these are available in the schools or local area (probably not).
2. The teacher then asks a follow-up question about what students could use as an alternative in order to make music. In addition to the human voice, suggestions might include:

- Hitting old bits of metal / cans;
- Rusting plastic bags / biscuit packets etc;
- Shaking water in a bottle;
- Hitting a big stick against a tree stump;
- Slapping someone's leg or arms (but be careful!).

3. In groups, students create and rehearse their own musical pieces, which they then perform to the rest of the class.

16. SOUND CHALLENGE

Rationale

Students should engage with their local environment through sounds - which often people do not do - this can help to develop the imagination.

Stages

1. In pairs / small groups, students go out into the local area for a period of time (e.g. 20 minutes). They should note down all the different sounds that they hear, and where they heard them.
2. The students come back to the class, and share their discoveries.

Follow-up

Having heard from all the groups, ask the class to answer (and vote on) questions such as:

- What was the most common sound?
- What was the most interesting sound?
- What was the most unusual sound?
- What sound is easiest to make with your own voice?

GEOGRAPHY

17. FIELD TRIP

Rationale

There are many interesting places in people's local environment, which often they do not visit and may forget about. These can be valuable opportunities for learning.

Stages

1. The teacher identifies places of local interest which can be visited - e.g. a bridge, dam, museum, factory, carpentry shop etc.
2. The class goes to this place, and the students ask the experts there (or the teacher) about it. If the teacher has time, they could prepare a questionnaire for students to complete (e.g. what is the name of the place; what does it do; why is it important etc.)

Follow-up

- Students write a short report about their trip - either individually or together.

18. MAKE YOUR OWN MAP

Rationale

Maps are a great way of getting people to understand their local area. They can also reveal the different ways in which different people see their environment.

Stages

1. The teacher explains that, in groups, students are going to create a map of their local area.
2. In groups, students go out into their community and conduct research. They then make the map together, deciding what they consider to be the key information to record.
3. When the maps have been created, students should compare their maps with each other. They should note the differences - e.g. why people have focused on different information.

Follow-up

- Students could make an advert (either in writing or as a play advert) appealing to tourists to come to their local area - why they would have an interesting time.

SCIENCE

19. SOLAR SYSTEM

Rationale

The solar systems (the way the planets orbit around the sun) can be a difficult idea for students to understand. Talking about it in a more 'real' way can help students with this process.

Stages

1. The teacher takes the class outside.
2. She holds up an object which has a 3cm diameter to represent the earth (e.g. a stone). She says: 'Imagine if the earth were the size of this stone. How big do you think the other planets would be? She then elicits the name of the planets and their relative size / diameter. After each planet, one student should be told that that it is 'their' planet.
3. When all eight planets (Mercury-Neptune) have been discussed, those students should run off and go and find an object which represents that planet.
4. Meanwhile, the remaining students should go into the middle of the playground, going hands and form the sun.
5. When the other 8 students return, they should stand in order, with Mercury closest to the sun, and Neptune at the edge of the playground. The 'planets' should then say their name.
6. Ask the students how long it takes the earth to orbit the sun (=1 year). This students should then start walking round the sun at a normal speed. Then say that Mars takes two years, so they should start orbiting at half the speed of the earth. And then carry on with the rest of the planets (e.g. Venus should go twice as fast, and Mercury five times as fast as Earth).

Data

Object	Diameter of object	Suggested item	Orbit length
Sun	327 cm	Group of students holding hands	N/A
Mercury	1.2 cm	Marble / stone	0.2 years
Venus	2.8 cm	Marble / stone	0.6 years
Earth	3 cm	Marble / stone	1 year
Mars	1.6 cm	Marble / stone	2 years
Jupiter	33 cm	Large fruit / ball / pot	12 years
Saturn	27 cm	Large fruit / ball / pot	30 years
Uranus	12 cm	Bottle / Ball	84 years
Neptune	12 cm	Bottle / Ball	165 years

Follow-up

- Students can draw an image of the solar system in their books.
- Students can create a model of the solar system using rubbish and locally available materials (see Activity 24 below).

20. WHY WEIGHT?

Rationale

Weight / difficult scientific principle to explain without equipment. This will help to do it more effectively.

Stages

Some very basic equipment is needed for this one. A pair of identical containers (e.g. glass; jar; bucket); large bowls; water

1. Show the class two objects (or two sets of objects) which you want to compare. Ask them which they think is heavier and why.

2. Ask the class how we can prove which is heavier - even holding hands might be subjective. You could use scales if they were available - teacher explains there is another way of doing this.
3. The teacher places container 1 in bowl 1, and contained 2 in bowl 2. She then fills the containers to the top with water, ensuring that none spills into the bowls. She then places object 1 in container 1, causing water to spill into bowl 1. She then does the same with object 2 in container 2.
4. Elicit / Explain the science behind this idea (i.e. that an object displaces an amount of water which is the same as its weight - therefore the more water, the heavier the object).
5. Ask the students how we can provide which is heavier. Elicit / Explain that you can pour the water from bowl 1 into container 2. If it is short of the top, then object 2 is heavier; if the water spills over, then object 1 is heavier.

Follow-up

Students can do this themselves in the classroom or at home.

21. FOOD CHAINS

Rationale

Food chain is a fundamental biological and environmental concept to understand. It can be very effective to use a kinaesthetic approach to help deliver the key idea.

Stages

1. The teacher takes the class outside into an open area.
2. The teacher divides the class into 5 groups, which equal numbers of students in each group (or as close as possible).
3. Secretly, the teacher whispers to each group which animal / plant they are. In each group there will be 5 items, which exist as part of a food chain (e.g. Eagle-Snake-Frog-Caterpillar-Flower).
4. The teacher gives the instructions - the students should arrange themselves into new groups of 5, which contain 5 different members. When they have done this, they should arrange themselves in ‘food chain order’, from top to bottom.
5. The students then do an impression of their item (e.g. hissing for a snake; standing still and ‘growing’ is a flower). The students organise themselves into their groups.
6. General checking, feedback and discussion.

Follow-up

This activity can be done multiple times with different food chains, for example:

- Mongoose-Snake-Rat-Small bird-Worm

22. PREDICTION

Rationale

The ability to predict ('hypothesise') - and then test whether your prediction is correct or not - is a key scientific skill.

Stages

1. The teacher asks a question to the class. A few examples are given below:

- How many children can fit on one rug?
- How many pencils can you hold in one hand?
- How many paces it from your classroom to that tree?
- If you roll two things down a small hill, which one will arrive first?

2. For each question, the teacher should be asking 'why' and getting the students to defend their opinion. They should give evidence where possible. The teacher should encourage disagreement and discussion.

23. PROPERTY SEARCH

Rationale

This purpose of this activity is to get students to better understand the different properties of objects and materials.

Stages

1. The teacher asks the students to quickly go and collect **one** natural object each (e.g. a stone, leaf, stick, seed etc.)
2. When they return, in an outside space get them to place themselves in a line according to their hardness - the student with the hardest object stands at one end, and the student with the softest object stands at the other. The students should negotiate with each other about where they stand.
3. Repeat this activity for the following criteria (you may also think of others):

- Their volume
- Their surface area
- Their length
- Their weight
- Their density

ART

24. RUBBISH ART

Rationale

Two problems often found in Nepalese communities are 1. The prevalence of rubbish and 2. The absence of art materials. This activity focuses on combining the two in a project activity which is both useful for the community (in tidying it up) and interesting and fun for children. Some examples are below:

Stages

1. The teacher sets the class the task to gather as much rubbish as possible from there local area. Provide bags / containers if possible. Warn them to stay away from anything dangerous / sharp.
2. They should bring the rubbish to the school playground and put it in a big pile. Ideally, you will be able to provide Together, the class decides what they would like to make with it. Popular choices may include local animals, a house, a mountain etc.
3. Discuss with students the best way of doing this. For example, it might be easier ti have teams of students making different parts (e.g. legs / arm / head of an animal) with certain restrictions on size. Then together it is completed.

Follow-up

- This could be done on a repeated, regular basis - in time, the school could have its own collection of rubbish sculptures.
- Students could also do this on an individual basis in their own time, as a hobby. You could have an art exhibition at the school for the local community to come and see.

25. LINE IN THE SAND

Rationale

Creating pictures and art can be fun, and also have very positive therapeutic and health benefits. However, often materials may not be available, and a classroom may not be the best place to create art.

Stages

1. The teacher takes the class outside.
2. All the students should a stick. They then find their own space, which should be dusty, and draw pictures in the dirt.
3. The teacher invites all the students to go and look at their classmates' work.

“Must we always teach our children with books?
Let them look at the mountains and the stars up above.
Let them look at the beauty of the waters
and the trees and flowers on earth.

They will then begin to think, and to think is the
beginning of a real education.”

David Polis