



Thumbs Up
We were great at
the task
because...



Thumbs Sideways
We were good at
the task
because...



Thumbs Down
We were OK at the
task because...



we shared our opinions
with the team, e.g....

we explored other peoples'
opinions by thinking them
through, e.g....

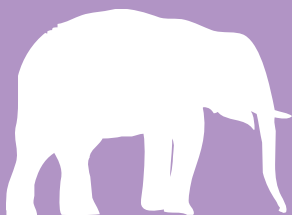
we negotiated and
compromised by ...

we used our science
knowledge to suggest
alternative ways to do the
jobs, e.g....

we...



Next time we will...





Safari Camp

Teamwork: to reach agreements with others

Scientific Communication: to look at how science affects the development of useful things



Generic task

Scrambled Stories



Learning Objective

Teamwork: to reach agreements with others

Introducing the task 5 minutes

Explain that successful teamwork means being able to discuss ideas and decisions and to reach agreement. Reaching agreements can involve listening to and respecting other people's opinions, letting everyone feel part of the discussion, being fair and taking turns. Sometimes we need to compromise to reach an agreement.

Introduce this task as a fun way of working as a team to unscramble stories. Explain that the children will need to work together, discuss, take turns and compromise if necessary to reach agreements.

Running the task 25 minutes

You need: a partner, scrambled story cards.

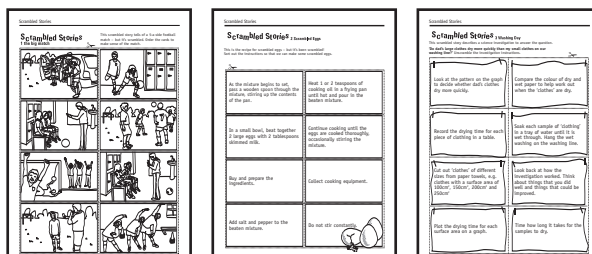
- 1 Organise the children into pairs and give each pair a set of Scrambled Stories cards.
- 2 Ask them to discuss and reach agreement about the order in which the pictures or sentences should be placed to tell a story.
- 3 When they have finished the sequence ask them to tell their story to another pair.

Would they have ordered the story differently or in the same way?

Helpful Hints

Cartoon strips from magazines are rich sources of stories, simple recipes can also be used for this purpose. To transfer this task into science context – provide shuffled sets of investigation instructions.

Resources





Science embedded task Safari Camp



Learning Objectives

National Curriculum Breadth of Study: 1b, 2a

Scientific Communication to look at the part science has played in the development of many useful things
to use appropriate scientific language to communicate ideas

Success Criteria

To be successful the children will:

- explore other people's opinions
- negotiate and compromise to reach an agreement or settlement
- use their science knowledge to suggest alternatives to using electricity as an energy source.

Introducing the task 10 minutes

Explain that in this activity the children are going to work as a team to reach agreements. This may involve listening to and exploring other people's opinions and then using discussion to reach a settlement or compromise (relate this back to the generic task).

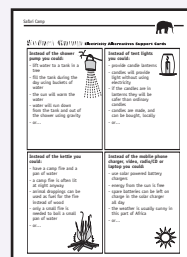
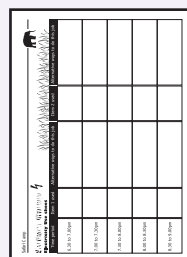
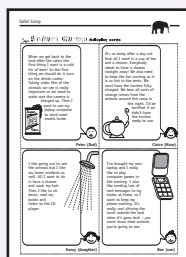
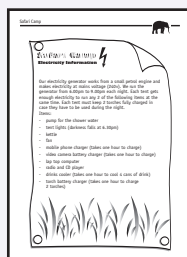
Running the task 40 minutes

- 1 Organise the children into teams of four.
- 2 Read aloud Safari Camp and the Electricity Information Sheet. Stress that the camp electricity supply comes from a small generator and the supply is limited. Only certain items will work at one time.
- 3 Give one Safari Camp Role Play Card to each member of each team. Allow time for individual children to read their role cards, think about the sorts of views their person might express and make brief notes about the ideas they want to put forward in the discussion. If appropriate, to support this process, cards could be given to pairs of children rather than individuals.
- 4 Ask the children to discuss, as a team, the issue of the electricity use on the safari camp. Emphasise that it is important to allow all team members to express their views, negotiate if necessary and to reach an agreement or suitable compromise.
- 5 Once agreement is reached the teams should fill in the columns labelled 'Item 1' and 'Item 2' in the table on Electricity Use Sheet (15 minutes is suggested for this activity).
- 6 Now ask the teams to use their science knowledge to brainstorm alternative ways to do the jobs needed on camp without using electricity from the generator. Use the Electricity Alternatives Support Cards if appropriate. Teams should record their ideas in the table on Electricity Use Sheet.

Reviewing the task 10 minutes

Discuss with the children some of the uses of electricity they have decided on and the agreements they reached. Consider those in which they negotiated and compromised, drawing out the features of these strategies. What alternative ideas did they have in order not to use electricity? Involve the children in making an overall judgement about how well they helped reach agreements using the assessment for learning Smart Grid (see back cover).

Resources

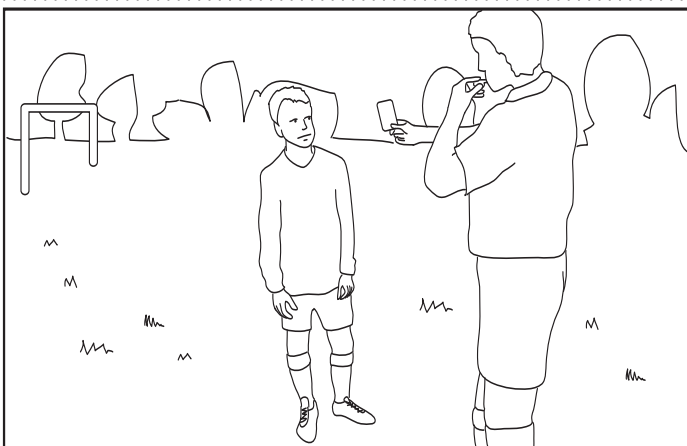
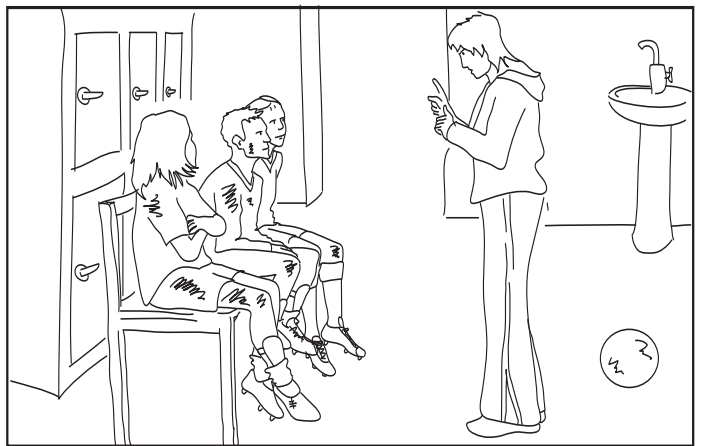
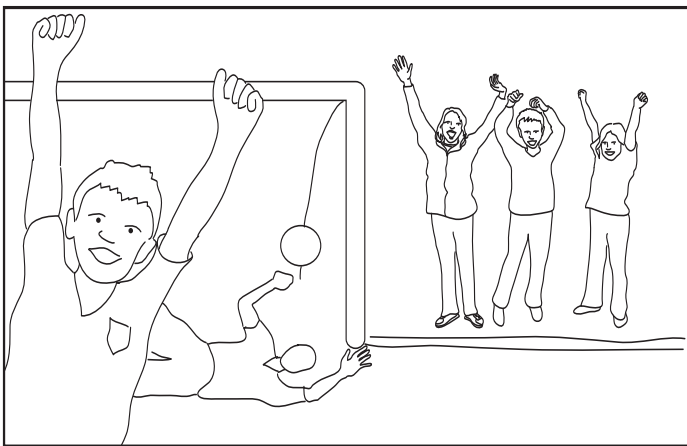
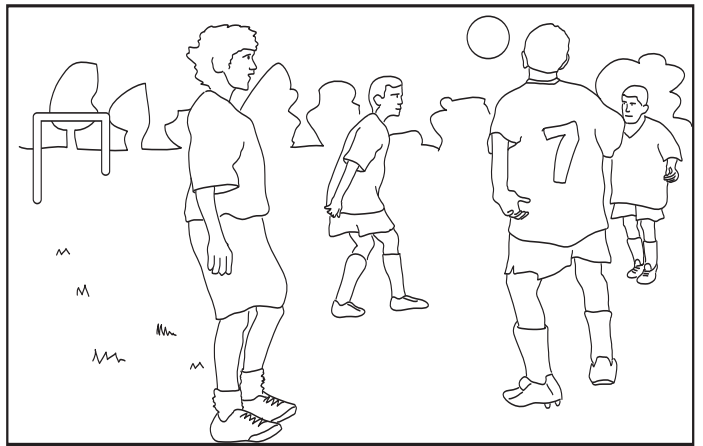
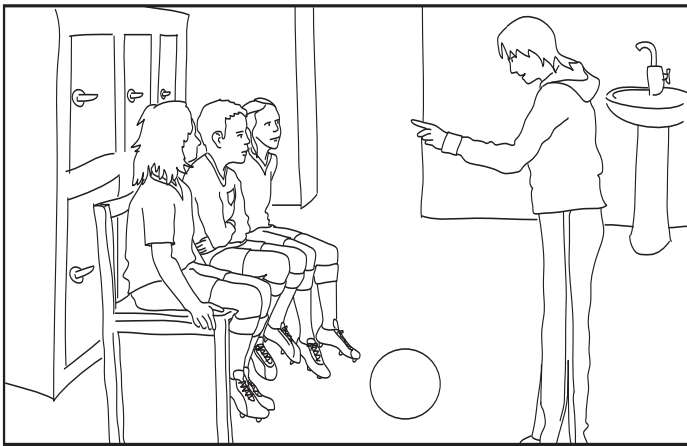
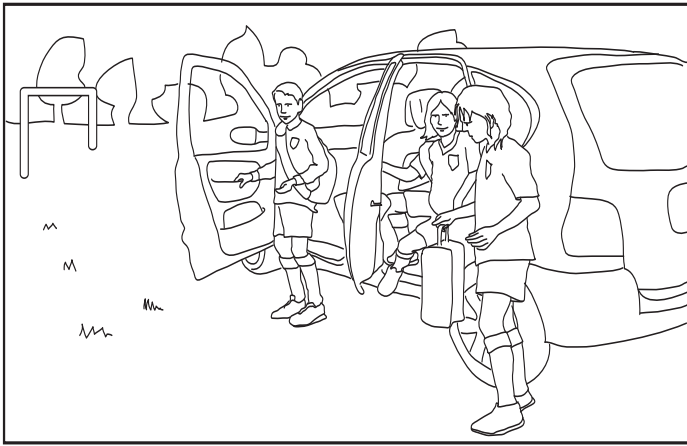


Scrambled Stories

1 the big match



This scrambled story tells of a 5-a-side football match – but it's scrambled. Order the cards to make sense of the match.



Scrambled Stories

2 Scrambled Eggs

This is the recipe for scrambled eggs – but it's been scrambled!
Sort out the instructions so that we can make some scrambled eggs.



As the mixture begins to set, pass a wooden spoon through the mixture, stirring up the contents of the pan.

Heat 1 or 2 teaspoons of cooking oil in a frying pan until hot and pour in the beaten mixture.

In a small bowl, beat together 2 large eggs with 2 tablespoons skimmed milk.

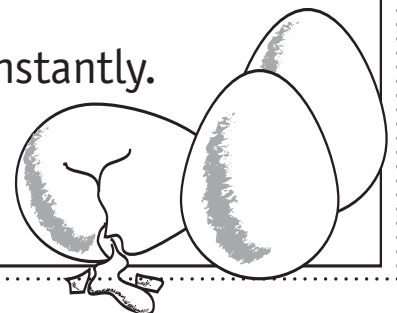
Continue cooking until the eggs are cooked thoroughly, occasionally stirring the mixture.

Buy and prepare the ingredients.

Collect cooking equipment.

Add salt and pepper to the beaten mixture.

Do not stir constantly.



Scrambled Stories 3 Washing Day

This scrambled story describes a science investigation to answer the question.

'Do dad's large clothes dry more quickly than my small clothes on our washing line?' Unscramble the investigation instructions.



Look at the pattern on the graph to decide whether dad's clothes dry more quickly.

Compare the colour of dry and wet paper to help work out when the 'clothes' are dry.

Record the drying time for each piece of clothing in a table.

Soak each sample of 'clothing' in a tray of water until it is wet through. Hang the wet washing on the washing line.

Cut out 'clothes' of different sizes from paper towels, e.g. clothes with a surface area of 100cm^2 , 150cm^2 , 200cm^2 and 250cm^2

Look back at how the investigation worked. Think about things that you did well and things that could be improved.

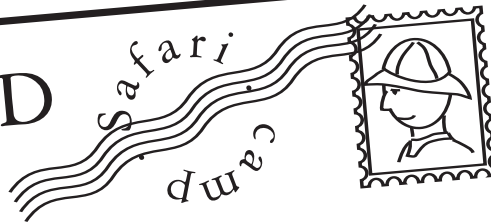
Plot the drying time for each surface area on a graph.

Time how long it takes for the samples to dry.



Safari Camp

POSTCARD



Dear Anna,

We are having a great time here at the safari camp. During the day it is really hot, sunny and dusty. We go out in the four-wheel drive vehicles and we have seen Elephants, Rhinos and Lions already.

The evenings are a bit of a problem though. It gets dark very early. It is not safe to wander away from the camp so we stay in the tents.

The tents are really well equipped but the electricity comes from a small generator that can only

make a couple of things work at the same time. Last night we had a really big argument about what we were going to use. Tonight we are going to sit down together and work out the best way to use the electricity.

I'm sure Ben and I can use some of the science ideas we have learnt about to come up with a few alternatives to using electricity.

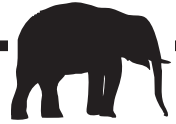
Love Nancy

Can you help Nancy and her family reach an agreement about using the electricity?

Instructions

- 1 Each person in your team should play the part of one family member. Use the role cards to help you understand how the person you are playing might want to use the electricity.
- 2 Take turns to present your views to the team then work together to reach agreement and fill in an electricity use sheet for the family.





Safari Camp

Electricity Information



Our electricity generator works from a small petrol engine and makes electricity at mains voltage (240v). We run the generator from 6.00pm to 9.00pm each night. Each tent gets enough electricity to run any 2 of the following items at the same time. Each tent must keep 2 torches fully charged in case they have to be used during the night.

Items:

- pump for the shower water
- tent lights (darkness falls at 6.30pm)
- kettle
- fan
- mobile phone charger (takes one hour to charge)
- video camera battery charger (takes one hour to charge)
- lap top computer
- radio and CD player
- drinks cooler (takes one hour to cool 4 cans of drink)
- torch battery charger (takes one hour to charge 2 torches)





Safari Camp Roleplay cards

When we get back to the tent after the safari the first thing I want is a cold tin of beer! So the first thing we should do is turn on the drinks cooler.

Taking video film of the animals we see is really important so we need to make sure the camera is charged up. Then I

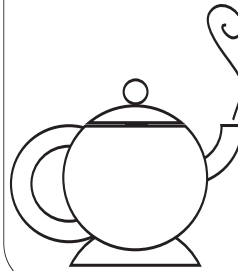
want to use my laptop computer to send some emails home.



Peter (Dad)

It's so dusty after a day out that all I want is a cup of tea and a shower. Everybody needs to have a shower straight away! We also need to keep the fan running as it is so hot in the tents. We must have the torches fully charged. We hear all sorts of strange noises from the animals around the camp in

the night. I'd be terrified if we didn't have the torches ready to use.



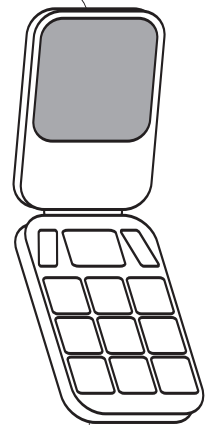
Claire (Mum)

I like going out to see the animals but I like my home comforts as well. All I want to do is have a shower and wash my hair. Then I like to sit down, read my books and listen to the CD player.



Nancy (daughter)

I've brought my own laptop and I really like to play computer games in the evening. I also like sending lots of text messages to my mates at home, so I want to keep my phone working. It's really cool shining the torch outside the tent when it's gone dark – you never know what animals you're going to see.



Ben (son)



Safari Camp

Electricity Use sheet



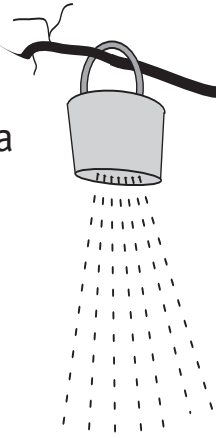
Time period	Item 1 used	Alternative ways to do this job	Item 2 used	Alternative ways to do this job
6.30 to 7.00pm				
7.00 to 7.30pm				
7.30 to 8.00pm				
8.00 to 8.30pm				
8.30 to 9.00pm				



Safari Camp Electricity Alternatives Support Cards

Instead of the shower pump you could:

- lift water to a tank in a tree
- fill the tank during the day using buckets of water
- the sun will warm the water
- water will run down from the tank and out of the shower using gravity
- or...



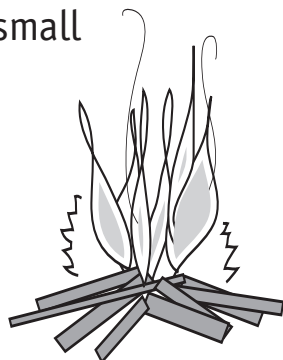
Instead of tent lights you could:

- provide candle lanterns
- candles will provide light without using electricity
- if the candles are in lanterns they will be safer than ordinary candles
- candles are made, and can be bought, locally
- or...



Instead of the kettle you could:

- have a camp fire and a pan of water
- a camp fire is often lit at night anyway
- animal droppings can be used as fuel for the fire instead of wood
- only a small fire is needed to boil a small pan of water
- or...



Instead of the mobile phone charger, video, radio/CD or laptop you could:

- use solar powered battery chargers
- energy from the sun is free
- spare batteries can be left on charge in the solar charger all day
- the weather is usually sunny in this part of Africa
- or...

