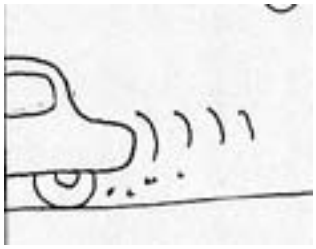
Energy Chains

Kinds of Energy Cards

skier at the top of a slope

a moving car

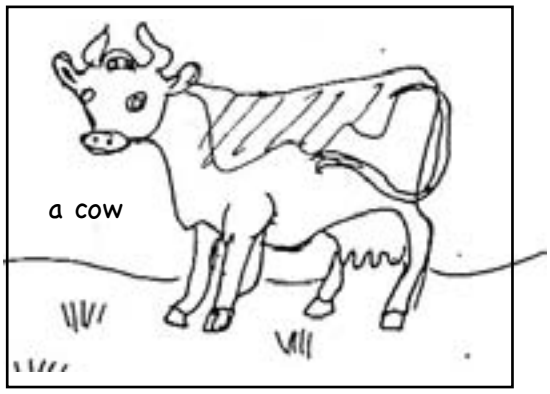


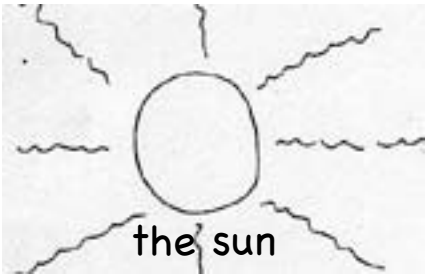
We'd love you to hand draw more cards for this activity!

a toaster with toast in it

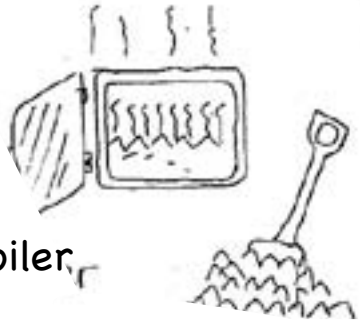
Energy Chain Cards

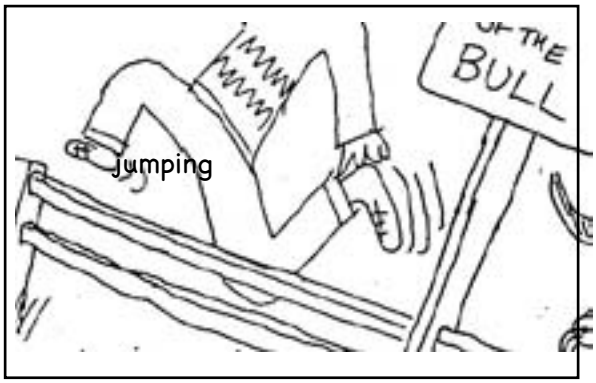
a cow





a boiler





For Sorting and Sequencing

Energy Chains

This activity was first produced by Chris Laine, Pauline Hoyle and Stuart Scott in Islington Green science department in 1983. It has been used as a template subsequently by many others, and even got borrowed without aknowledgement by a couple of textbook publishers.

The energy chains activity is self explanatory, and will hopefully lead to the production of a whole series of well illustrated chains that other children can use to extend their learning. We are sticking with the hand drawn version. Please send us new exciting drawings to extend the activity!

The "kinds of energy" pictures can be used in a variety of ways: sorted into 'types' e.g. potential, kinetic etc. of energy (you will need to produce a sorting sheet with the different types written on), or paired in a pelmanism game either matching picture with type cards or finding picture pairs. You will of course need more picture cards to make the game interesting and children can produce these. We could have updated this from images on the net but we have stuck with the drawings for nostalgia reasons. We have also always argued that any picture is better than no picture and that ambiguous (badly drawn?!) pictures stimulate more discussion.

The webaddress for this activity is:
http://www.collaborativelearning.org/energychains.pdf

This activity was last updated 22nd March 2016

Our activities are designed to:

...build on prior knowledge.
...move from concrete to abstract thinking.
...ensure everyone works with everyone else.
...extend social language into curriculum language.
...provide motivating ways to go over the same topic more than once.

COLLABORATIVE LEARNING PROJECT
Project Director: Stuart Scott
We support a network of teaching professionals to develop and disseminate accessible talk-for-learning activities in all subject areas and for all ages.
17, Barford Street, Islington, London N1 0QB UK Phone: 0044 (0)20 7226 8885
Website: http://www.collaborativelearning.org

BRIEF SUMMARY OF BASIC PRINCIPLES BEHIND OUR TEACHING ACTIVITIES:

The project is a teacher network, and a non-profit making educational trust. Our main aim is to develop and disseminate classroom tested examples of effective group strategies that promote talk across all phases and subjects. We hope they will inspire you to develop and use similar strategies in other topics and curriculum areas. We want to encourage you to change them and adapt them to your classroom and students. We run teacher workshops and conferences worldwide but mainly in the UK. The project posts online many activities in all subject areas. An online newsletter is also updated regularly.

*These activities are influenced by current thinking about the role of language in learning. They are designed to help children learn through talk and active learning in small groups. They work best in non selective classes where children in need of language or learning support are integrated. They are well suited for the development of speaking and listening. They provide teachers ideal opportunities for assessment of spoken language.

*They provide scaffolding for differentiation by placing a high value on what children can offer to each other on a particular topic, and also give children the chance to respect each other's views and formulate shared opinions which they can disseminate to peers. By helping them to take ideas and abstract concepts, discuss, paraphrase and move them about physically, they help to develop thinking skills. We strongly endorse the principles of the Learning Without Limits group to which we belong.

*They give children the opportunity to participate in their own words and language in their own time without pressure. Many activities can be tried out in pupils' first languages and afterwards in English. A growing number of activities are available in more than one language, not translated, but mixed, so that you may need more than one language to complete the activity.

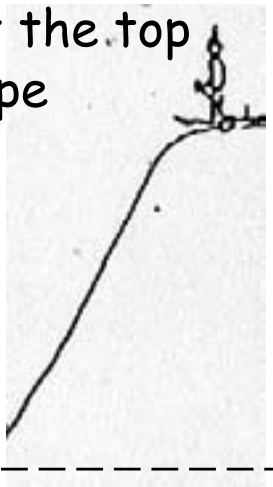
*They encourage study skills in context, and should therefore be used with a range of appropriate information books which are preferably within reach in the classroom.

*They are generally work effectively over a wide age range because children can bring their own knowledge to an activity and refer to books at an appropriate level. The activities work like catalysts.

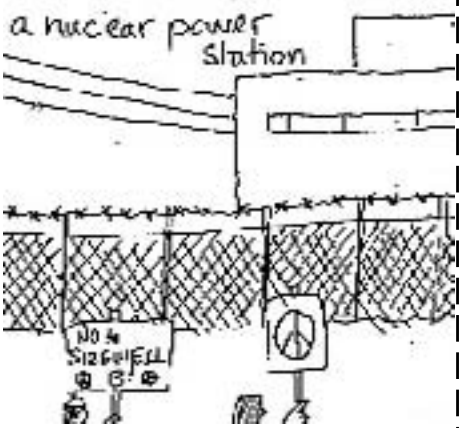
*All project activities were planned and developed by teachers working together, and the main reason they are disseminated is to encourage teachers to work with each other inside and outside the classroom. They have made it possible for mainstream and language and learning support teachers to share an equal role in curriculum delivery. They should be adapted to local conditions. In order to help us keep pace with curriculum changes, please send any new or revised activities back to the project, so that we can add them to our lists of materials.

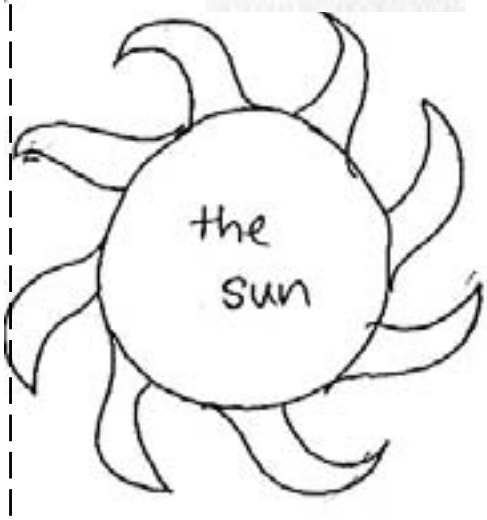
Kinds of energy cards

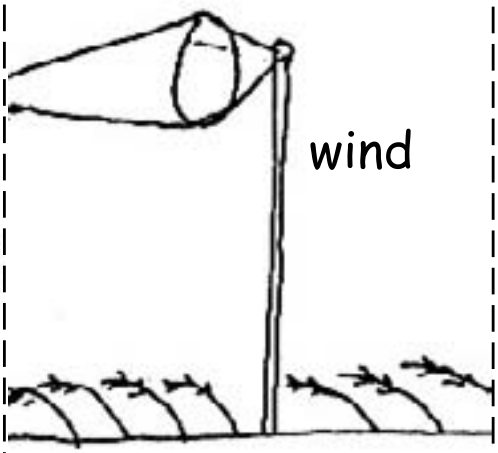
skier at the top of a slope



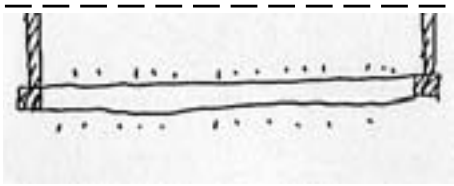
waves



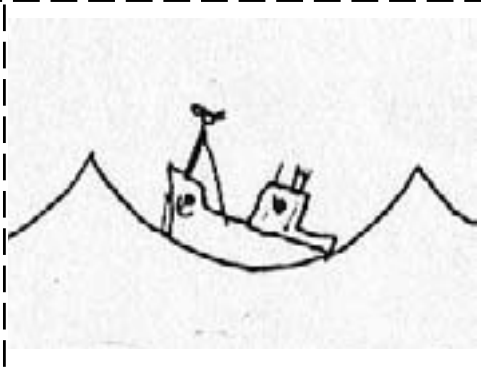




wind

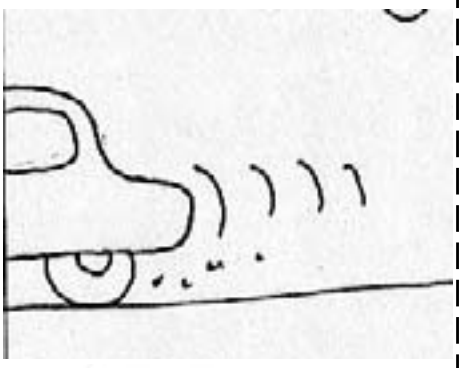


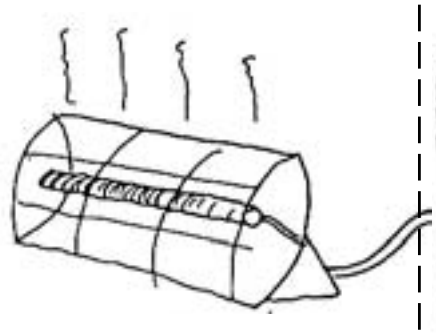
a fluorescent light



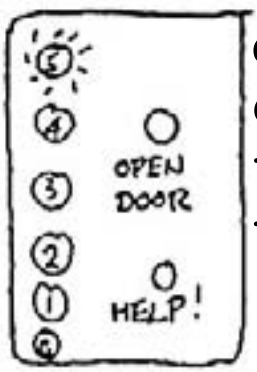
a boat on waves

a moving car

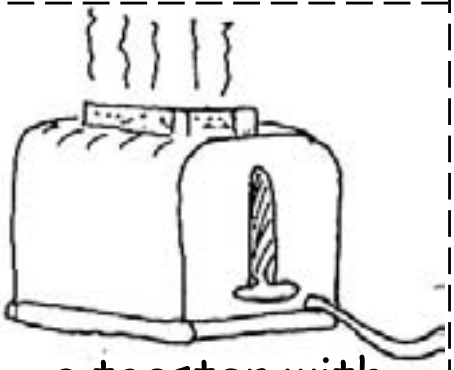




an electric heater



a lift on the fifth floor



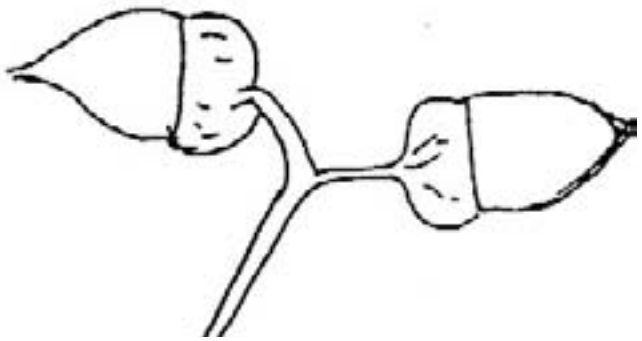
a toaster with toast in it

Energy Chains

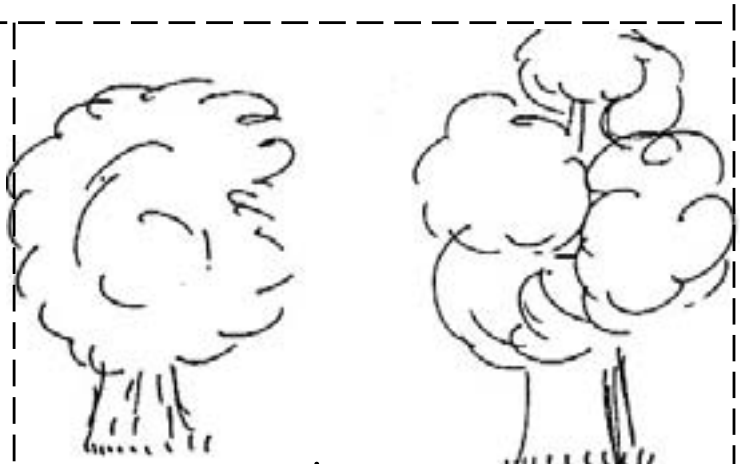
Work in groups of two or three.

1. Link up the chains! Put the cards together to make four chains, that show how energy is transfered. There are five links in each chain.

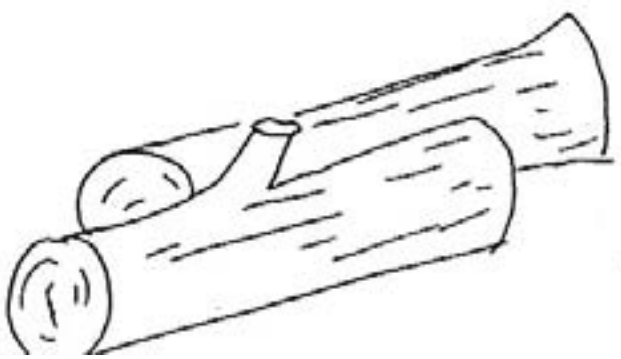
2. Take ten blank cards, and make your own chains. Try to produce some high quality illustrations! Swap cards with the other groups, and try to link their chains.



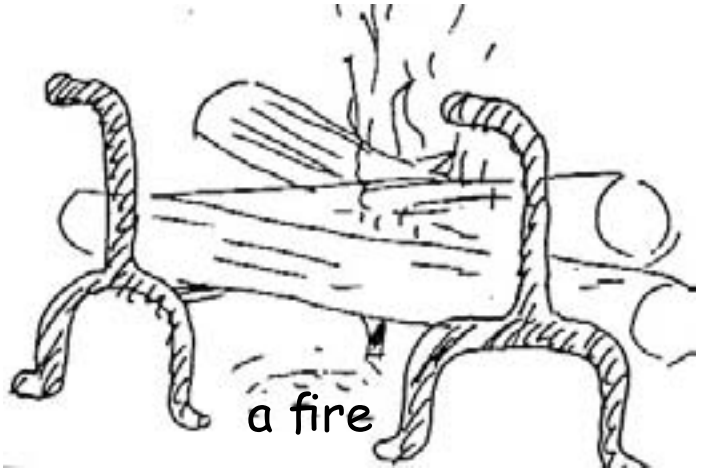
acorns



oak trees

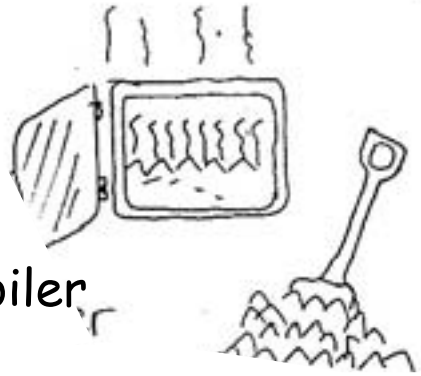


logs



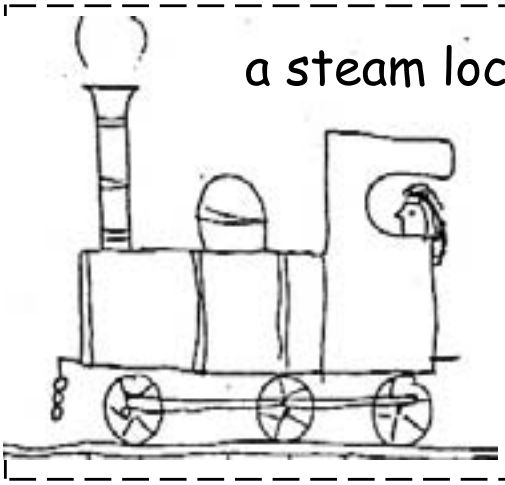
a fire

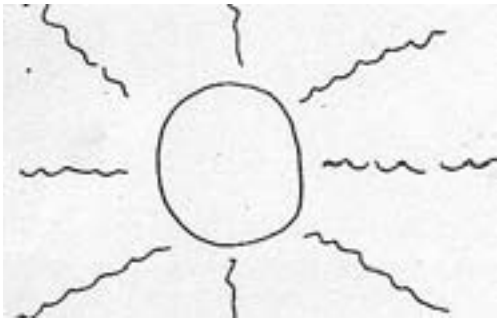
Energy Chains



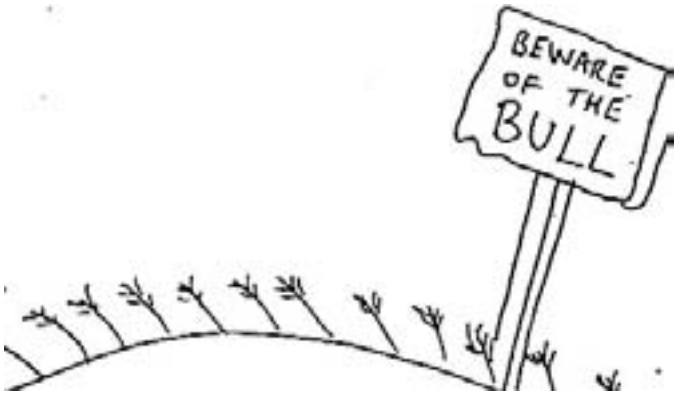
a boiler

a steam locomotive

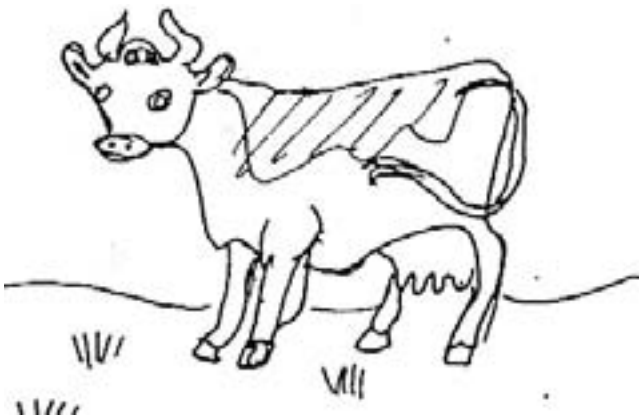




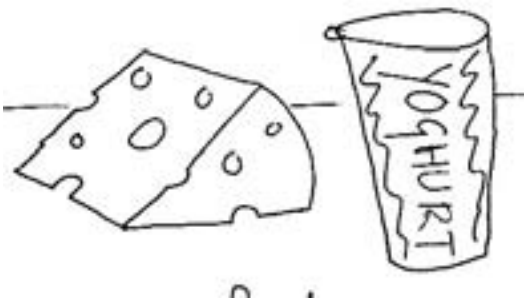
the sun



grass

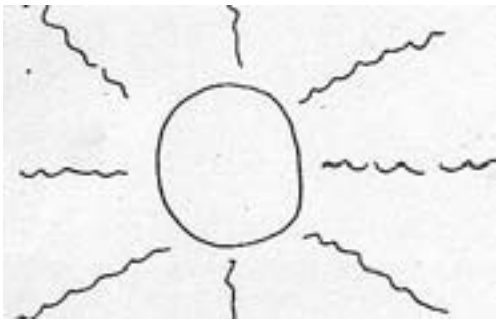


a cow



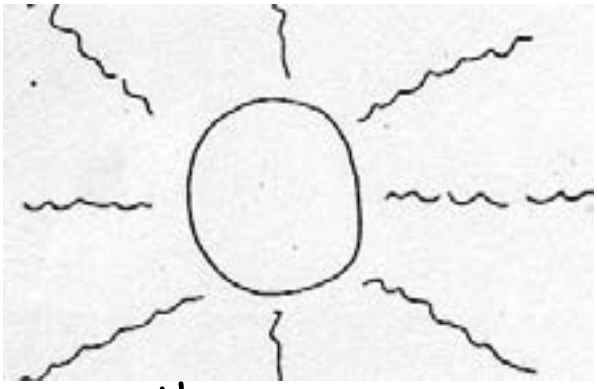
food

jumping



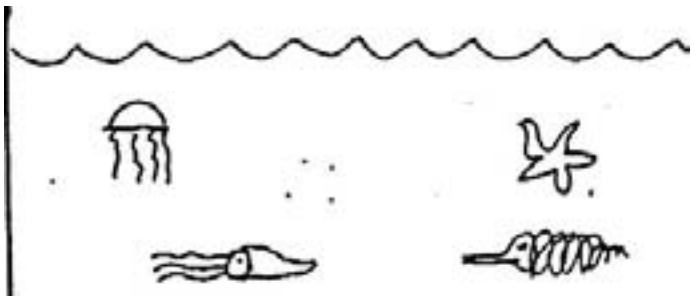
the sun

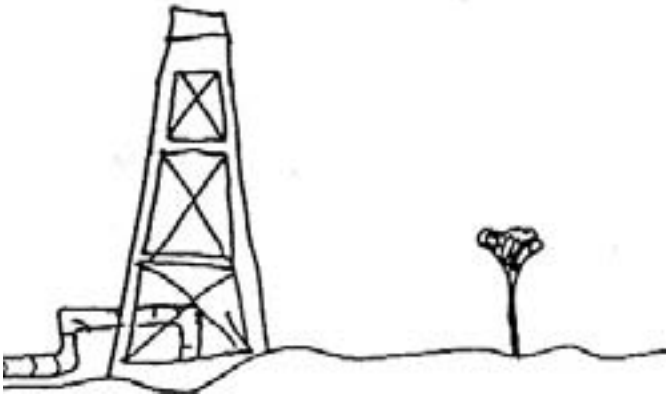
Energy Chains



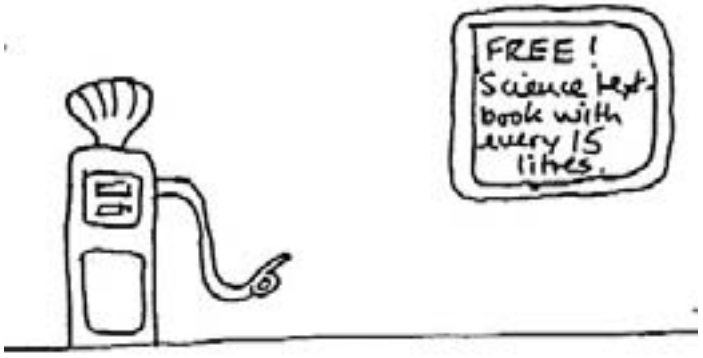
the sun

tiny sea plants and animals

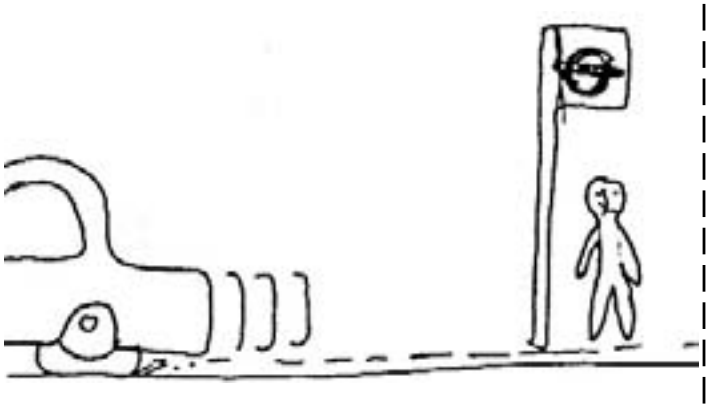




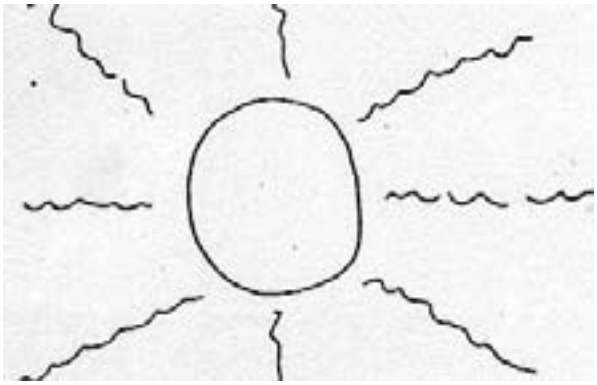
oil



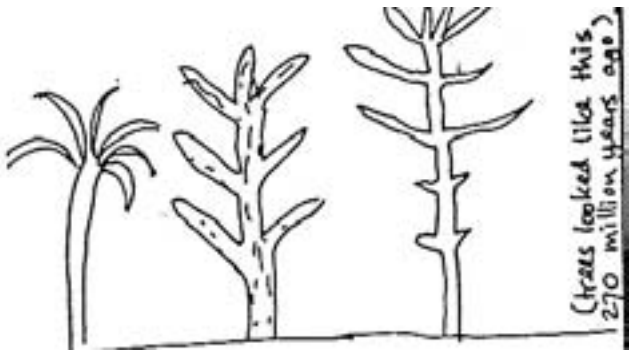
petrol



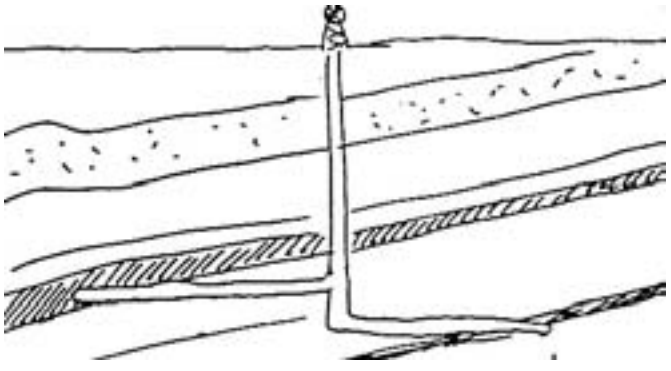
a car



the sun



trees



coal