community solutions **east**

helping to strengthen resilience in local communities

the oil game

a creative workshop for exploring solutions to the challenges of fossil fuels, climate change and more....








Supported by

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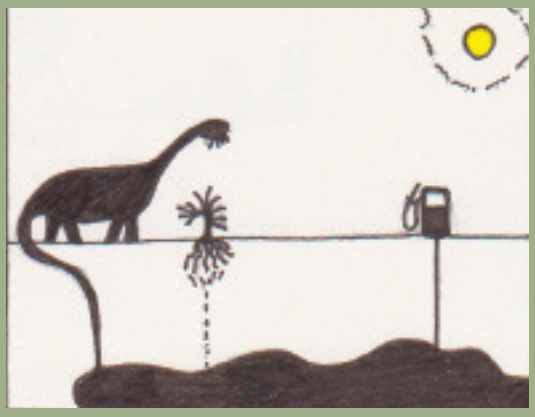
And thanks to the Transition Towns movement, especially colleagues in Transition Norwich. Thanks also to Rob Hopkins for the original idea of the Oil Game, which we discovered through Transition Tales and have developed further.

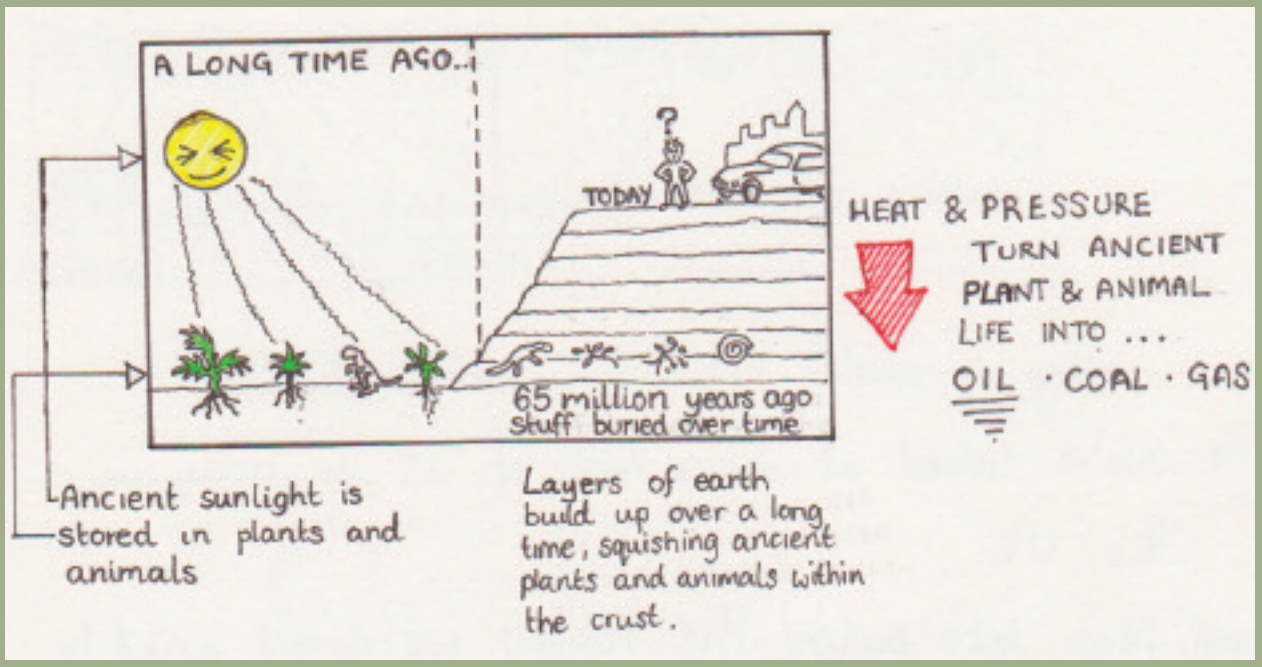
Contents

Dinosaur poo and the 65 million year compression factory

This is the story of oil – transforming dinosaur poo and 'ancient sunlight' to make billions of barrels of black stuff. Why is it important and what would our lives be without it? We're going on a journey to find out.



A brief history of oil



'Ancient sunlight' – hasn't it been productive!

Around 65 million years to make ...

... and around 65 million barrels of oil a day, every single day of the year

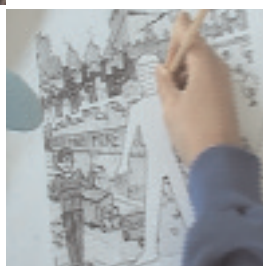
A LOT of barrels of oil

Introduction

The purpose of this workbook is to facilitate a workshop of approximately three hours that focuses on our current oil dependent society and explores how we might move beyond this dependency as individuals, local communities and nationally. This is achieved through a series of drama and art-based activities that aim to get participants to delve into unexamined assumptions about our oil-dependent lifestyles and explore how we could move towards a more sustainable less oil-dependent world.

Part 1 of the workbook describes **the oil game**, a fun activity that gets us thinking about what we use oil for and just how important it is in our everyday lives. Get ready to rethink!

Part 2 explores our relationship with oil in our everyday lives. We tell some **oil-user stories** and find out things that might surprise us - how did we get to be so dependent on oil?



Part 3 looks at **how we might change**. We get to meet people from the future and find exciting ways to do things differently. What choices will you want to make in your vision of the future?

The workbook can be used by teachers, other educational professionals and children from Year 6 upwards. The workbook will include notes on linking with the National Curriculum and expanding the workbook into other activities.

Ultimately the aim of the workbook is to engage the participants, inviting them to consider:

- the impact of oil dependency
- the concept of peak oil and scarce/unreliable supply
- any personal responses and/or actions they may be inspired to take as a result of what they discover

The workshop is intended to be used as a starting point for facilitators to deliver their own workshops tailored to the needs of different groups. The material in the workbook can be adapted to the needs of different age ranges in schools and for adults - such as community groups. People with limited knowledge about the subject matter may rely on the workbook with confidence; and for subject matter experts the creative approach to workshop delivery will provide fresh ideas for explaining the topics.

Part 1: The Oil Game

Resources needed for the Oil Game

1. A box or small plastic crate, big enough to hold assorted objects
2. A selection of everyday objects eg toothbrush, ballpoint pen
3. Clear glass or plastic beakers
4. Measuring jug and coloured water
5. Colouring pens or pencils and paper
6. Whiteboard or blackboard

(See Appendix A for details of resources.)

The Oil Game is played in five steps, outlined below. These notes are for guidance only - you should adapt the Oil Game to the specific needs and interests of your group. See Appendices B and C for more information on adapting and extending the Oil Game.

Step One: What's in the box?

We provide a box full of assorted everyday objects and invite the group to select objects one by one. When the box is empty we ask them to pick an object that they think has definitely not been made from oil. :

Q: Would you be surprised to find that these different objects have something in common?

A: They are all made from oil or by using oil

Very brief discussion of the pervasiveness of oil as a raw material used in everyday objects.

Step Two: Find things that are definitely not made from oil

We invite the group to identify objects in the room that are not made from oil:

Q: Are you sure that there's no oil involved?

A: They all depend on oil in some way - eg fertiliser, packaging

Discussion about how important oil has become in our everyday lives - not just as a raw material (Step 1) but as a means of producing things (energy source in manufacture, component of fertilisers, fuel for transporting goods etc) and touch on potential shortage of supply (explored in more depth later).

Identify key areas eg transport, housing. Organise the group into teams representing each of these key areas, distributing coloured cards to everyone to represent their teams. Suggestions:

- food (green cards)
- housing (yellow cards)
- transport (blue cards)
- hi-tech eg TVs, mobile phones, computers (silver cards)
- clothing and cosmetics (pink cards)
- anything else that's important? Ask the group to suggest ideas (optional - see Appendix B).

Step Three: First rations!

The facilitator gives each team a beaker labelled with their topic and pours out a ration of 'oil' to last them for five years. What could they do with this resource - eg build state-of-the-art houses, the latest designer fashions, supersonic jet planes?

Invite the teams to capture their ideas in drawings; remind them that there is no limit to what they can have - the only limit is their imagination. Allow (say) fifteen minutes of team drawings and discussion as appropriate for the group.

Time's up! Ask the teams to display their work/ideas and talk about their choices for using oil in their key areas. Ask each team to explain why their topic is important today - perhaps provide some suggestions eg speed, quality of lifestyle, keeping up to date with the latest developments? Get them to argue the case for why their topic is most important and agree a priority order if possible.

Step Four: Rations for the next five years!

The facilitator hands out the same set of empty beakers (labelled with their teams' topics) and starts to pour out the new rations. Oh dear! There isn't enough to go round - what should we do?

Invite suggestions and discussion about how to allocate the oil sensibly. Should everyone have the same amounts, even if it's much less than before? Or do some areas need more oil than others because they are important? If so, why are they important? *(See Appendix B: Diamond ranking, which provides an approach to prioritisation.)*

Open discussion first about priorities, then group work. Ask the teams to work on their own topic and think about how to make the oil go further, then come together and share their initial thoughts. (We'll be exploring those suggestions in more detail later, because they will need a little time to reflect on the implications of limited oil supplies.)

Step Five: Recommendations for the future

Imagine that there really is going to be a shortage of oil in (say) five years' time. What are the things that could be done now, and the plans that could/should be in place? We're just looking at this as headlines here. In later activities we'll be looking at the actions we could take in more detail, as individuals, as communities and as nations.

Part 2: Exploration

Exploration...

Where are we now?

This section explores the way most of us live today, jumping in a car to pop to the supermarket, turning up the central heating at home when it gets a little bit colder, buying a huge range of things because they are offered in the shops.

There are three activities: general discussion, telling 'stories' and revisiting priorities. Then we take a look at how we got here (the history of oil) and why it's a problem.

Activity 1: How we live today: unpack the picture

Facilitator:

We're going to explore how we live today and uncover some unexamined assumptions about our lifestyle

(We provide a list of prompts for the facilitator, eg supermarket discounts, lights left on in some houses although it's daylight; planes, traffic)

Ask the group to make a list on the whiteboard/flipchart of all the things they can see that are clues about our oil dependent life. There are lots of obvious things, but there are some hidden stories too - eg those lights left on in the daytime.

Activity 2: Snapshot stories

Divide the group up into 6 teams of 5 people, the same groups as for the oil game. . Stick some numbers on the picture, one for each group [we'll suggest locations - eg in a traffic jam, on a plane, outside a shop]. Each group is going to create a story about the scene that is highlighted by their number. Each story will look at how we use oil in our everyday lives with fresh eyes, like outsiders, that will make us think about what we do every day without thinking about it.

In their teams, they have 5 minutes to create a story that's all about using oil. Their oil game beakers are marked A, B and C for three different types of storyteller:

The A teams are aliens, reporting on what they see us doing and trying to make sense of it

The B teams are broadcasters, telling a news story, so it has got to be sensational

The C teams are cunning spies, recording the facts

For the teams:

Each of you has been given a number showing a location in the picture. Tell us a story about what's happening. Your story has to include people doing things that involve the use of oil - eg travelling, shopping, working.

You have also been allocated a letter (on your oil game beaker) which tells you how to report your story - as aliens, as broadcasters or as cunning spies.

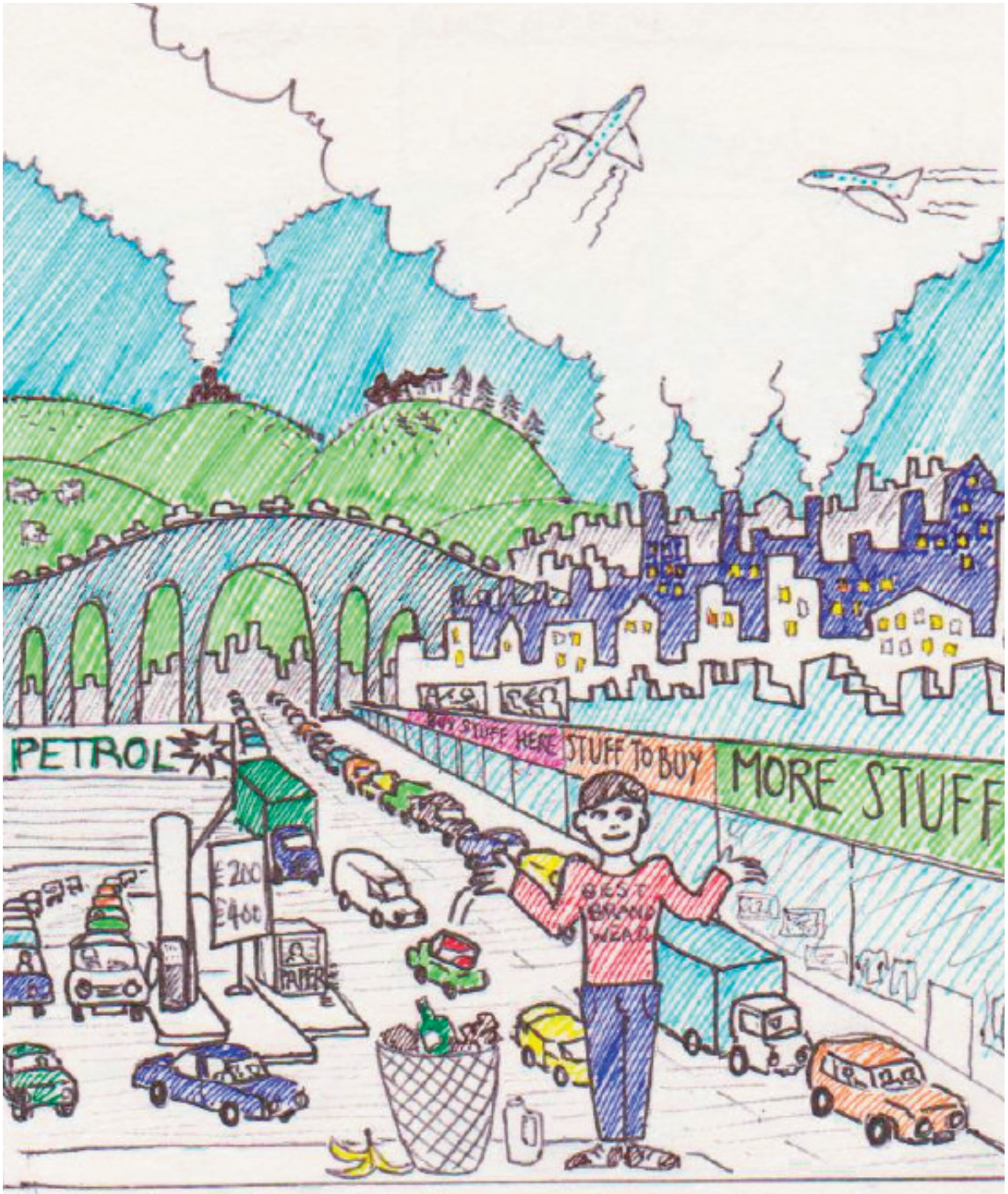
You've got 5 minutes to create a story in your team, then each team reports to the whole group. (if possible, we'll film these reports.)

Activity 3: Revisiting priorities

If oil became very expensive (really expensive, much more than today), are there things we could do to reduce our use of oil?

If we could talk to the characters in our stories, what would we suggest to them that they could do differently?

Looking back at the priorities we decided in the oil game, what do we see as the most important things to use our expensive oil for? And where could we cut back if we had to?



A snapshot of today

Well-being room

Organise the group into new teams, to work together on listing some of their favourite activities and interests in their lives that are not particularly dependent on oil. Then bring the group together to share their ideas and record individual or team choices on a flipchart.

The human drill factor – our discovery of the black stuff

How did we get here?

Some facts and figures

- 1859 (approximately) discovery of oil (at the same time as the human population reaches 1 billion).
- Information about population explosion due to relationship with oil – leading questions to open discussion
- Politics and plastic – why important?
- Industrialisation and acquisition. Approximately 65 million barrels of oil a day, every day. What is it used for?

Why do we depend on it?

- Used as a raw material
- Used to make a *humungeous* number of things (plastic)
- Used to provide power for the machines that make all these things
- And used to make fertiliser, pesticides, medicines, etc etc

Who's using it? (globally speaking)

(A few statistics on economically developed countries and third world/emerging economies – BRIC)

- Which countries produce it?
- Which countries use it most?

What's the problem? Why we might want - or need - to change

We've looked at how most of us live today in the UK. Now we'll explore the reasons why we might want to change (climate change etc) and why we might have to change (rising prices).

Discussion points

- CO2 in the atmosphere contributing to climate change
- Environmental disasters (eg Gulf of Mexico oil spill)
- Political and economic unrest (eg the Middle East) could mean shortages and/or high prices

Some headlines

Oil price hits two and a half year high

Libyan unrest and Opec chair Iran's refusal to sanction production increases pushes US crude to $108.74

Why an oil spill in Arctic waters would be devastating

As oil companies move further north, many say it's only a matter of time before a big spill. The consequences would be catastrophic

Part 3: Making changes

In this section we're going to investigate what our future lifestyle might look like.

Our picture shows an imaginary scene that's maybe a hundred years in the future. We're going to use it as the starting point for the **Future beings game**.

Start by looking at the picture as a group and lead discussion on the things that we can see that suggest a more sustainable society than we have today - eg vegetables patches, community orchards, wind farms.

Now we're going to have a conversation with time travellers - people from 2111, just one hundred years from now. We're going to ask them what their lives are like - how they travel, where they go for their holidays etc. What is their school like?

And they want to find out about our lives, because they have only heard about them in history books and it all seems very strange to them. For example, did people really carry around plastic bottles of drinking water?

Organise the group into pairs - each pair will have one person from the present day and one from a hundred years in the future.

Take turns to ask each other questions about their lives and whether they need to use oil.

Today people: ask the Future people to tell you about a typical day

- what they eat; how they get to school; some of the things they learn at school; how they spend time after school

- and special occasions - like holidays, weekends. Where do they go and what do they do? Is it fun?

- and their local community where do people work? What do they do?

Future people: use your imagination and the picture to think about your answers. Then ask the Now people about their lives and ask if it's really true that people used to buy everything in the supermarket, instead of local shops; strawberries in the winter; plastic-wrapped cucumbers wrapped again in clingfilm...

Then come together as a group to share ideas.

Finally, you are going to **write a letter to yourself from the future**.

You are around 80 years old and the year is 2080. You are looking back on the great transition you went through in your lifetime, from an oil dependent and ecologically unsustainable world to a way of life that is less oil dependent and much more sustainable.

Write a letter of thanks to your 10 or 11 year old self, saying "Thank you" for some of the small changes you made in 2011 that helped achieve this great transformation.

You can write just a couple of sentences - like a postcard - or a few paragraphs explaining why those small actions were so important. Here are some examples:

- Thank you for switching off the lights when you didn't need to use them. You have saved so much electricity!

- Thank you for choosing to drink tap water instead of bottled water. We don't need so many plastic bottles now.

- Thank you for walking to school/work most days instead of going by car every day. We're saving the petrol for more important things like fire engines.

A snapshot of the future

Making changes now/ Leaving the 'ancient sunlight' in the ground

Examples of behaviour change

- Don't buy so much packaged food
- Cut down on travelling by car
- Choose environmentally friendly products
- Pick paper mache milk cartons rather than plastic packages

Result- Low carbon choices- further examples and ramifications to the individual, the society, the planet. Discussion about what things do we want to take forward into the future? and what do we want to leave behind?

Looking at the two big pictures again, does it seem a long way to the future world of 2111? What sorts of things might we want to start doing now?

How do we bridge the gap between 2011 and 2111?

Let's think about some of the things that we want to start doing now (share some some pictures of eg outdoor food markets, eco-houses)

What sorts of things can we do as individuals?

In our communities?

Nationally?

Space is provided here to write your own group ideas of today and in 2111.

What can you do? Look at the split picture with the cut-out figure. Remember some of the wasteful oil-dependent activities we talked about from the first picture; then consider some of the ideas for the future in the second picture. Think about what you might want to change in your own lifestyle now, to get you started on the journey from now to the future. You are invited to fill the blank cut-out figure with some of your ideas about **changes you can make today**. Feel free to discuss ideas as a group to share with each other.

Your ideas for today....

Some examples

	Already doing it	Can change	Don't want to change
Tap water instead of soft drink			
Cycle/walk to school instead of car			
More veggies, less meat			

..... and 2111


NOW - 2011
FUTURE - 2111
STUFF TO BUY
MORE

Appendix A: Resources needed for the Oil Game

1. A box or small plastic crate, big enough to hold assorted objects
Your box or crate can be as small as a 25 cm cube or as large as a suitcase. Ideally it should have a lid, but this is not essential.

2. A selection of everyday objects eg toothbrush, ballpoint pen
Some suggestions for items made from/including plastic:

- toothbrush
- DVD/CD
- cosmetics
- ballpoint pen
- bottled water

Some suggestions for items using oil in their production:

- wooden spoon (oil is used in its manufacture)
- citrus fruit (oil is used in fertilisers and in transport)

Include some items that can be used as 'props' in Part 2: Exploration, when they start creating some snapshot stories. Suggestions:

- mobile phone
- plastic toy
- notebook
- sunglasses
- headscarf
- disposable camera

3. Clear glass or plastic beakers
Choose beakers that can be marked with a marker pen. You will need enough for each team or each category (food, transport etc) depending on how you play the Oil Game - our recommendation is five beakers.

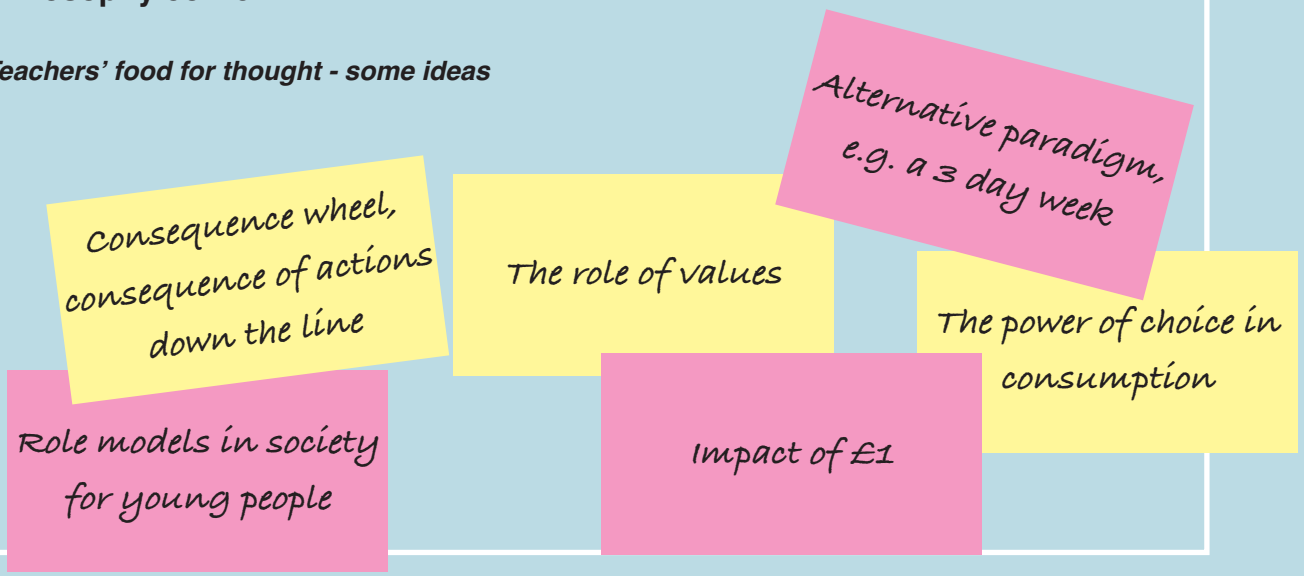
4. Measuring jug and coloured water
Choose a measuring jug of 1 or 2 litre capacity. Colour the water with an edible dye such as fruit cordial or teabag.

5. Colouring pens or pencils and paper
Have a selection of equipment suitable for creating coloured drawings - enough for everyone in the group to share easily. Post-it notes are useful to have too.

6. Whiteboard or blackboard
Standard classroom equipment - or even just a flipchart - is all that you will need.

Philosophy corner

Teachers' food for thought - some ideas



Appendix B: Diamond ranking

An approach to prioritisation

This technique is useful for Step 4 of the Oil Game, when the students are deciding on priority ranking of their topics (food, transport etc).

Using the topics of food, transport, housing and so on, invite the group to further explore and personalise their ideas of what should be prioritised by using the 'Diamond Ranking' activity.

With post-it notes/ bits of paper, each individual writes their preference out of the five topics discussed (food, housing, transport etc) as well as including new topics they feel are important e.g. 'emergency services'. The choices are collated and arranged in the shape of a diamond allocated on a clear wall. The most important idea goes at the top of the diamond, then the next two most important, then the next three, and so on down to the single least important idea. This 'bunches' ideas in a way that can be more meaningful.

Ideally nine topics could be discussed and arranged as a diamond (if only six come up, make it a pyramid shape).

This approach encourages students to think critically and carefully about their choices as well as encouraging good teamwork.

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Appendix C: Expanding on the Oil Game - links to the National Curriculum

The topics in the Oil Game can be used as context for many of the key subjects in the National Curriculum. Some examples are outlined below.

Citizenship
Create a debate. As the group investigates oil dependend lifestyles, get them to debate why their category is important. They might consider what is most important in an emergency situation such as the aftermath of a hurricane or the impact of war, in comparison with 'business as usual'.

Applied maths - data analysis
Students can manipulate data about oil use, using spreadsheet software. The European Environment Agency provides information about oil price and supply/demand fluctuations over the last 20 years: www.eea.europa.eu

History
Research and discussion - how did we do things before the age of oil? Topics to investigate include horse-drawn transport and farm animals as a workforce before tractors (and still essential in some situations); the canal network and transport of goods by water (think of Venice!); hand skills (eg weaving, cabinet-making); medicines; food production.

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Appendix D: Frequently asked questions (FAQs)

Q: *Where does oil come from?*

A: Oil is found deep in the earth's crust, where it is drilled out.

Q: *What is 'society'?*

A: 'Society' is a large group of people sharing the same territory who live under certain laws and rules that allow its members to achieve things that could not be achieved individually.

Q: *What does 'finite' mean*?

A: 'Finite' means there is only a limited amount of something - such as oil. It will not last for ever; it does not renew itself.

Q: *What is renewable energy?*

A: Renewable energy is energy that comes from natural resources that renew themselves such as sunlight, wind and tides.

See *Appendix E: More information* (next page) for sources of further questions - and answers!

Your questions and answers....

Appendix E: More information

Websites of interest:

Your Planet Needs You
Website celebrating ordinary people leading new and extraordinary lives that are sustainable, just and peaceful

www.yourplanetneedsyou.org

Choose Climate
Interactive model linking climate science and policy

www.chooseclimate.org

World Without Oil
The serious alternate reality game that started it all: "If you want to change the future, play with it first."

www.worldwithoutoil.org

WWF - the World Wildlife Fund
The world's leading conservation body: safeguarding the natural world, tackling climate change and helping people to change the way they live.

www.wwf.org

Breathingearth
CO2, birth and death rates by country, simulated in real time.

www.breathingearth.net

Poodwaddle
Free Flash gadgets and apps, especially the World Clock - data about population, energy use etc.

www.poodwaddle.com

Norfolk County Council Environmental and Outdoor Learning Team
Providing and enabling high quality outdoor llearning and education for sustainable development across Norfolk

www.norfolk.gov.uk/outdoorlearning

Norfolk Wildlife Trust
Working for the protection and enhancement of Norfolk's wildlife and wild places

www.norfolkwildlifetrust.org.uk

Transition Culture
The Transition Towns movement's culture page "an evolving exploration into the head, heart and hands of energy descent".

www.transitionculture.org

Zero Carbon Britain
A new energy strategy - Zero Carbon Britain 2030 - is a positive realistic policy framework to eliminate emissions from fossil fuels within 20 years

www.zerocarbonbritain.org

Campaign for Better Transport
Campaigning in the UK for green transport that's good for people and the planet

www.bettertransport.org.uk

Endpiece

Find out more...
We hope you have enjoyed playing the Oil Game. For further information, clarification or questions - do get in touch with us.

Email: tomharper@ekit.com

Coming soon...

The water workbook
This workshop takes you on a 4.7 billion year journey; traversing time and space, ending up as a droplet from the tap in your kitchen.

The Stuff and Relationships game
“I can’t believe my phone came out of the Earth in 72 different places!”
A workshop exploring the way we value ‘stuff’ and how much that ‘stuff’ in turn values the natural capital of the planet.

Community Solutions East

A not-for-profit company, linked to Transition Norwich, that aims to deliver creative and fun approaches to education and learning on environment and sustainability issues

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