

Energy Connect Four



Spring

| | | | | | | | |
|----------------|----------|------------|----------|------------|-----------|------------|-----------|
| Dynamo | Chemical | Potential | Kinetic | Electrical | Sound | Heat | Wind |
| Aeroplane | Sound | Heat | Light | Chemical | Potential | Kinetic | |
| | Nuclear | Electrical | Sound | Kinetic | Heat | Light | Swing |
| Electric Motor | Light | Kinetic | Heat | Potential | Nuclear | Chemical | |
| | Sun | Electrical | Chemical | Heat | Sound | Electrical | Potential |
| Moon | Battery | | | | | | |

Energy Connect Four

Developed by Steve Cooke.

The webaddress for this activity is:

<http://www.collaborativelearning.org/energyc4.pdf>

Last updated 21st March 2016

Teachers' notes

You will need to enlarge the game board, and print the cards in two colours. Please send us any improvements you may develop.

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 throughout the European Union to promote inclusive education. We 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, swapshops and conferences throughout the European Union. 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 opportunities for assessment of speaking and listening.

*They support 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.

*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 adaptable 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 more effectively 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.

<http://www.collaborativelearning.org/energyc4.pdf>

HOW TO PLAY ENERGY CONNECT FOUR

You need 4 people, one gameboard and two sets of cards with different colours. Work with your partners to make two teams of two. Each pair takes a set of cards. Teams shuffle their cards and place them in a pile facing down.

Teams take it in turn to turn over their top card and decide where to put it on the board. If there is any doubt check with books or on line! The winning team gets four in row diagonally, vertically or horizontally.

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Energy Connect Four Game Board

| | | | | | |
|------------|------------|---------|------------|------------|-----------|
| Chemical | Potential | Kinetic | Electrical | Sound | Heat |
| Sound | Heat | Light | Chemical | Potential | Kinetic |
| Nuclear | Electrical | Sound | Kinetic | Heat | Light |
| Light | Kinetic | Heat | Potential | Nuclear | Chemical |
| Electrical | Chemical | Heat | Sound | Electrical | Potential |

Energy Connect Four Cards

Dynamo

Natural
Gas

Train

Animal

Uranium

Loudspeaker

Aeroplane

Wind

Match

Television

Microphone

Petrol

Spring

Moon

Sun

Rain

Grass

Hydrogen
Bomb

Telephone

Swing

Bullet

Lightning

Parachutist

Stereo

Electric
Motor

Battery

Radio-

Torch

Fire

Wood

Sea

Food

Car

Candle

Football

Lightbulb

Energy Tick Chart

| | Chemical | Potential | Kinetic | Electrical | Sound | Heat | Light | Nuclear |
|----------------|----------|-----------|---------|------------|-------|------|-------|---------|
| Aeroplane | | | | | | | | |
| Battery | | | | | | | | |
| Bullet | | | | | | | | |
| Car | | | | | | | | |
| Dynamo | | | | | | | | |
| Electric motor | | | | | | | | |
| Fire | | | | | | | | |
| Food | | | | | | | | |
| Football | | | | | | | | |
| Grass | | | | | | | | |
| Hydrogen Bomb | | | | | | | | |
| Light Bulb | | | | | | | | |
| Loudspeaker | | | | | | | | |
| Match | | | | | | | | |
| Microphone | | | | | | | | |

Energy Tick Chart

| | Chemical | Potential | Kinetic | Electrical | Sound | Heat | Light | Nuclear |
|-------------|----------|-----------|---------|------------|-------|------|-------|---------|
| Moon | | | | | | | | |
| Natural Gas | | | | | | | | |
| Parachutist | | | | | | | | |
| Petrol | | | | | | | | |
| Radioactive | | | | | | | | |
| Sea | | | | | | | | |
| Spring | | | | | | | | |
| Stereo | | | | | | | | |
| Swing | | | | | | | | |
| Sun | | | | | | | | |
| Telephone | | | | | | | | |
| Train | | | | | | | | |
| Uranium | | | | | | | | |
| Wind | | | | | | | | |
| Wing | | | | | | | | |