### Changing Dominoes

Produced by Rose Elgar from the Cambridgeshire Multicultural Education Service. A series of bingo and dominoes activities for consolidating the spelling and meanings of scientific vocabulary at KS3 and 4.

We welcome more contributions in this area since it supports the KS3 literacy strategy

The webaddress for these activities is <a href="http://www.collaborativelearning.org/changingdominoes.pdf">http://www.collaborativelearning.org/changingdominoes.pdf</a>>

#### COLLABORATIVE LEARNING PROJECT

Project Director: Stuart Scott

Supporting a cooperative network of teaching professionals throughout the European Union to develop and disseminate accessible teaching materials in all subject areas and for all ages.

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### 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 across all phases and subjects. We hope they will inspire you to use similar strategies in other topics and curriculum areas. We run teacher workshops, swapshops and conferences throughout the European Union. The project publishes a catalogue of activities plus lists in selected subject areas, and a newsletter available by post or internet: "PAPERCLIP".

\*These activities were 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 mixed 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 and other formative assessment.

\*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 mother tongue 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 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.

# Changing States Dominoes

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×	matter	The solids, liquids and gases all ma- terials are made from.	solid
This has a fixed shape and volume.	liquid	This has a fixed volume. It is runny and can be poured.	gas
This has no fixed volume,or shape and can be squashed easily.	particle	The smallest thing that all matter is made from.	density
How heavy something is or how many particles there are in a given volume.	melting	When a solid be- comes a liquid.	freezing
When a liquid becomes a solid.	evaporation	When a liquid becomes a gas.	condensa- tion
When a gas be- comes a liquid.	changes of state	Changes from a solid to a liquid to a gas or vice versa.	solute
Substance being dissolved. eg sugar in tea	solvent	The liquid doing the dissolving eg water in a cup of tea.	solution

## Changing States Dominoes

The mixture of solute dissolved in the solvent. eg sugar solution	distilla- tion	This is used to separate a pure liquid from a solution eg water from a salt solution.	chroma- tography
Used to separate a mixture of dyes.	×		