How to be Brilliant at

RECORDING IN SCIENCE

Brilliant Publications

Contents

How to be Brilliant at Recording in Science

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Introduction

How to be Brilliant at Recording in Science contains 38 photocopiable ideas for use with 7-11 year olds (plus two for teachers to use). The book contains structured worksheets aimed at developing a systematic approach to investigating in science. The format for recording suggested here is based upon the premise that the work should be practical and related to children's own ideas and understanding. *How to be Brilliant at Recording in Science* is designed to be highly compatible with National Curricula throughout the United Kingdom.

Each worksheet is designed to have a particular skills focus and we recommend that you read through the teacher's section before using the sheets to ensure that you choose the one most closely matching the learning objectives you have set. Also, suggestions are made for adapting particular sheets to meet the particular, differentiated needs of your pupils.

These sheets are *not* designed to be used in isolation, but to supplement any science scheme that is being used. The teacher should provide the context for the activity. The use of one or more of these sheets will encourage pupils to adopt a more structured and systematic approach to their work in science.

The worksheets in this book are subdivided into six sections:

Teacher sheets
The two sheets in this section are designed to assist the teacher in planning for pupil led investigations and to record assessments of how well individual children are meeting the learning objectives being set for them.

Thinking and planning
These sheets are designed to encourage children to think about the activity before they attempt it; to discuss and record their ideas, predictions and hypotheses; and to concentrate on the planning of particular aspects of the science activity.

Recording results
These sheets provide structured formats that are sufficiently flexible to be used in a very wide range of situations, in conjunction with sheets from the previous section.

Observation
These sheets provide formats for the recording, ordering and sorting of observations.

Presenting findings
These sheets provide a wide range of formats suitable for presenting most forms of data that can be collected from investigations.

Content specific
This section contains sheets for the recording of ideas, observations and measurements about particular scientific content areas.

Using the worksheets

Below, for each of the sheets, we identify some of the potential learning objectives that children could be steered towards.

Teacher sheets

Investigation planning sheet **page 9**

To be used at the topic planning stage for the teacher to:

- identify the expected prior learning of the children;
- predict the actual activities that might be required;
- identify parts of the NC requirements.

Group assessment **page 10**

To be used during discussion or observation of practical work to:

- provide a format for recording the degree to which individual children have attained particular planned learning objectives.

Thinking and planning

Brainstorm! **page 11**

Children should be able to:

- demonstrate an understanding of the factors that might potentially effect the outcome of an investigation;
- share and discuss their understanding.

My ideas **page 12**

Children should be able to:

- predict the outcome of an activity;
- provide adequate reasons (hypothesize) why this should happen;
- give a brief account of what actually happened.

Our ideas **page 13**

Children should demonstrate the ability to:

- share and consider each other's ideas;
- arrive at a compromise, or otherwise agreed, position.

Questions! **page 14**

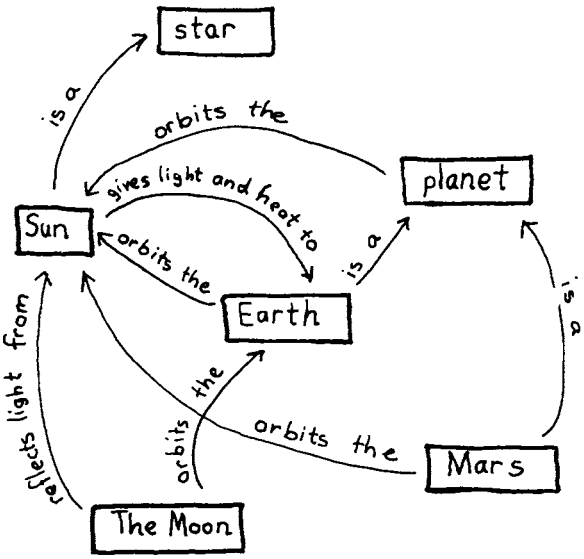
Children should demonstrate the ability to:

- identify areas relevant to the line of enquiry;
- to phrase questions in a format that could lead to investigation.

Concept mapping **page 15**

Children should demonstrate the ability to:

- identify words relevant to the area of study;
- link these words in a meaningful way to show understanding of underlying scientific concepts ('force' and 'move' could be linked together, as in: 'force' needs to be applied to make an object start to 'move').



Fair test **page 16**

Children should demonstrate the ability to:

- identify the factors that will be controlled to make the investigation fair;
- explain how these factors will be controlled to make the investigation fair;
- explain how the investigation will be carried out to ensure that the results are valid (indicate that the test will be repeated or carried out over a suitable period of time).

My plans **page 17**

Children should produce:

- a sequenced plan for the investigation;
- a comprehensive list of equipment.

Keeping a record **page 18**

Children should demonstrate the ability to:

- measure changes;
- record these measurements;
- present the data.