

## BRIEFCASE

### Learning the uses of minerals through non-conventional teaching tools

#### D.3.2\_ BRIEFCASE USER'S GUIDE\_ V0

##### PROJECT DOCUMENTATION SHEET

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## DELIVERABLE DOCUMENTATION SHEET

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## 1. OVERVIEW OF THE DELIVERABLE

The current manual has the aim of be used as a basic operation guide for the Briefcase games, allowing the reader to acquire skills and knowledge required to enjoy the games as an advisory tool which can be checked by the users at any moment.

It intends to provide a detailed idea of the scope and benefits provided by the educative tool and it allows learning using a non-conventional tool to awake the interest of the players who will learn in a different way, more interactive. The target of this document is to provide a general guide for the users coming from the **general public**, in order to provide a tool that can be used in an autonomous way.

These guidelines are based on the general ideas of the previous deliverable D.3.1 *Briefcase toolkit* which gave us a general overview of the contents and idea of each of the briefcases. It will be translated to all partners' languages.

Any comment or suggestion will be welcome by the game developers. The contact address for this purpose is [direccion.tecnica@fgomezpardo.es](mailto:direccion.tecnica@fgomezpardo.es)

## 2. INTRODUCTION

The game is the most intense learning experience we have in our first years of life and it becomes the main educational strategy through which we begin to integrate concepts and social rules. On the other hand, we also know that the cognitive and personality development of children depends to a large extent on the richness of the stimuli they receive from the environment and how they relate to them. Thus, through the game we interact with these elements, with others and with ourselves, safely recreating situations of real life, present or future, which allow us to know our own capabilities. All this happens thanks to an essential ingredient, the mastery of meta-representations, or what is the same, the ability to imagine. Thus, through the (symbolic) game we create a mental space in which objects can be transformed into representations that carry only a tenuous connection with their original form.

The game can only be effective as a learning strategy when it is accompanied by a structure and contents that allow putting this educational practice into context. So things, it seems clear that before using it as an educational strategy should understand the dynamics of the game, analyse what we intend to achieve at the end of the training process (knowledge, attitudes, etc.), which elements of the game really have value to achieve these goals, and how to present to the student challenges that are truly motivating. Therefore, starting from a clear formative approach, the game can contribute to the cognitive scaffolding, creating a structured environment where the student will learn certain procedures for progress, having the opportunity to practice

through trial and experimentation, sometimes with the collaboration of others, and at other times individually. The Briefcase tools include real minerals and have been complemented with the gold panning workshops session, in order to apply the Chinese proverb: *what I hear, I forget; what I see, I remember; what I do, I learn it.*

### 3. BRIEFCASE BACKGROUND

BRIEFCASE is a mature and consolidated workshop, which has been applied for more than 10 years by the Geomining Museum<sup>1</sup>, in Madrid (Spain) focused on the diffusion of minerals knowledge among children during their visits to the Museum.

The workshop is aimed at identifying minerals and the ore elements that compose them and some everyday objects made with them. In this way, students guided by teachers, realize that many minerals are used in daily life. This workshop is a complementary activity to the curriculum of primary and secondary students. The problem that arises is that not all schools can include these workshops and that they are designated for a period of time. Therefore, one of the lines of work is that this type of teaching of the uses of the general subjects and objects that they compose are compulsory incorporated to the official and regulated subjects. The Geomining toolkit is the basis of the BRIEFCASE (physical and virtual) concept, but our Project covers much more fields and raise awareness about the mining sector, a concept that is new in this kind of workshops.

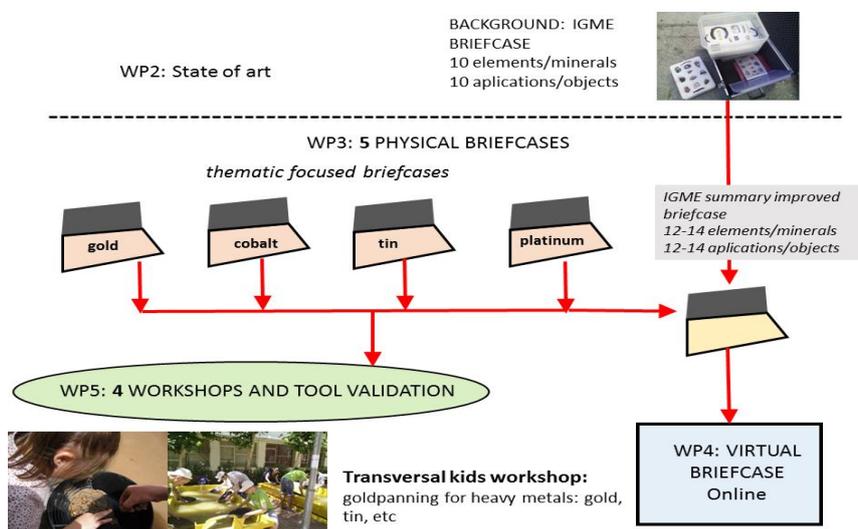


Figure 1: WP3 General scheme of the briefcase toolkit

<sup>1</sup> <http://www.igme.es/museo/didactica/maletasDid.htm>

#### 4. GENERAL OBJECTIVES

The BRIEFCASE tools provide the following educational goals:

- Rethinking about the mining activities perception
- Learn more about the global business of mining
- Encouraging to think about social cultural meanings historically assigned to some minerals, and their daily uses
- Making older pupils aware of the invisible supply chain of extraction, processing, commercialisation and sale of blood minerals
- Learn more about the consequences of mining operations in terms of social and environmental impacts, especially in developing countries.
- Reflecting on possible solutions addressing the social consequences produced by the conflict minerals exploitation (like purchase decisions).
- Raising awareness of the importance of recycling.
- Motivate children from small ages to be sensitive about environmental protection.
- Understanding that waste prevention is the first and most important step in the waste reduction hierarchy
- Encouraging a critical, questioning attitude about how we use our devices (at a personal, societal, and global level)
- Thinking about the consequences of our purchase decisions for the people living in countries with mining activities
- Highlighting the exciting career opportunities in mining.

#### 5. SPECIFICATIONS

The basic requirements to play the game are the following.

##### SPACE DESIGN:

The space must be safe, stable and quiet. The classroom must be structured in such a way that free and spontaneous answers can be given, as well as follow the game rules and educational purpose in small groups and the whole group. At least, a table with chairs around would be required to provide the appropriate place to write.

##### THE GAME MATERIALS:

The Briefcase tool includes all materials for the game. Copies of the punctuation sheets for score recording are recommended to avoid using the last copy.

Anyway, the templates for the punctuation sheets (if any) can be requested through the following contact: [direccion.tecnica@fgomezpardo.es](mailto:direccion.tecnica@fgomezpardo.es)

## COMMON MATERIALS IN THE BRIEFCASE TOOLS

All the Briefcase thematic tools include the following items:

- The physical briefcase
- The user's guide
- The pedagogic guide
- Plasticized sheets with the clues and the minerals characteristics
- Objects and minerals (different, depending on the thematic briefcase)
- Different games
- Complimentary materials

The solution and the game story of each workshop has been included in the pedagogic guides.

### GAME TIME ORGANIZATION:

The time must be organized in such a way that each type of game can be given: individual or in groups, structured (in the case of small children) or free, quick response or final solution. Each suitcase considers the type of competition proposed in the determination of the game times.

### THE TEACHER/GUIDE ATTITUDE:

The position of the teacher or the adult or student guiding the game must be discreet, observant and act as the driver of the game. To do this, it must create a relaxed and permissive climate where the child can express himself respecting the rules and the teacher must accept the mistakes that the children make as normal within the process of their development.

### THE GAME

Each Briefcase tool contains a different game to play with the pupils according to the thematic area considered in the thematic Briefcase. The majority means a circuit or a race about a specific mineral to run by answering the questions about this mineral through quiz, puzzles or drawings.

### THE PUPILS

It is recommended to play with pupils' group of homogeneous age in order to select the questions, vocabulary and further explanations according to the target audience in each case.

# BRIEFCASE TOOLS

VERSION 00

## RULES OF PLAY

### OBJECT

To move along the circuit/story and the spokes correctly answering questions, and to collect points for correctly answering questions along the game time.

To win, a player (or team) collects.

### MATERIALS

- Briefcase box
- Questions, answers and clue cards
- Game guides
- Complimentary material.

### PLAYERS

For 1 teacher or student and 2-30 players in two teams.

### SET UP

At least one teacher or one student will be selected to address the game. The rest of the participants will be split in two groups. The participants will sit around the table with their competition group, one team on each table side.

The teacher/student defines the target, the punctuation system, the competition rules and the time (see the Pedagogic guide suggestions).

### GAME PLAY

In case of briefcase questions game (recommended for younger students):

The teacher reads the game story to introduce the participants in the competition circuit. For the first turn, the teacher will show the question to be answered by the first team and gives them the clue. If the answer is wrong, the second team has the opportunity to answer and records the

points for a good answer. If the team answer is right, a point is recorded in the score table. A second question and clue are delivered to be answered by the first team. The teacher provides questions and clue to the participants until the end of the story.

In case of Briefcase final solution games (recommended for older students):

The teacher reads the game story to introduce the participants in the competition circuit. She/he gives the question and clue cards to the teams, half part to each one, and define the game time to find the solution. The teacher provides the solution of the workshop at the end of the time to record the participants scores.

### RECOMMENDATIONS ON PLAY

Players should remember that making a guess is always better than not answering at all. Pupils can be surprised with what they know.

### WINING THE GAME

At the end of the game time, the team with more points win the competition.

### REINFORCING THE LESSON

At the end of the game, the teacher presents the Briefcase didactic materials to summarize the lessons learnt during the workshop.