



The Missing Detective

David Blanco Laserna

A READING GUIDE



FUNDACIÓN
BOTÍN

Reading Guide

This resource material is part of *Responsible Education*, the Botín Foundation's educational programme which encourages emotional, social and creative development, fosters communication and improves classroom harmony at schools by working together with teachers, school children and families.

Responsible Education resource materials allow the following range of variables to be worked on: emotional identification and expression, empathy and self-esteem (affective growth); self-control, decision-making and positive attitudes to health (cognitive growth); interactive skills, self-affirmation and assertive opposition (social growth) and creativity.

CREDITS

Produced by

Fundación Botín

Contents by

Araceli Calzado Roldán

Translation by

Tom Skipp

Design and layout by

Baixa Studio / Fernando Riancho

Published by

Fundación Botín September 2019
Pedrueca 1, 39003 Santander

© Fundación Botín, 2019
© of the texts: the authors
© of the illustrations: Puño

Index

| | |
|---|------------|
| 0 Foreword | 161 |
| 1 Introduction | 162 |
| 2 The author and his work | 165 |
| 3 The illustrator and his work | 165 |
| 4 Activities | 166 |
| Before reading | 166 |
| 1. First impressions | 166 |
| 2. On, in... | 167 |
| 3. Clues the pictures give us | 167 |
| 4. Getting our bearings | 168 |
| 5. Off to a good start? | 169 |
| 6. Nemo | 170 |
| 7. A touch of science | 171 |
| During reading | 171 |
| 1. My detective diary | 171 |
| 2. Important words | 172 |
| 3. A mysterious mansion | 173 |
| 4. Detailed description | 173 |
| 5. Key objects | 174 |
| 6. Death threat | 174 |
| 7. Find out who you are! | 175 |
| 8. Piecing together the story | 176 |
| 9. A touch of drama | 176 |
| 10. Thanks for everything | 177 |
| After reading | 178 |
| 1. What shall we do now? | 178 |
| 2. All together | 179 |
| 3. Good and bad decisions | 180 |
| 4. Let's make a comic | 181 |
| 5. Investigator investigated | 182 |
| 6. Debate | 183 |
| 7. Everyone has a story to tell | 183 |
| 8. Memory loss | 184 |
| 9. Fallen from the sky | 184 |
| 10. In good company | 185 |
| 11. From Archimedes to Newton | 185 |
| 12. The scientist who was ahead of her times | 186 |
| 5 Further reading and more information | 188 |



O | FOREWORD

This guide is a tool that aims to make educators' work on the reading process easier. In it there are a variety of activities to choose from that seek to bolster the act of reading and, in addition, to set objectives related to the school children's emotional, cognitive, social and creative areas.

We know that reading can evoke feelings, memories, emotions and new ideas that help the reader to progress in their personal development and, in this sense, the role of the educator, who puts into action a number of different strategies aimed at recognizing and analysing the content of the texts, proves indispensable. The activities proposed contribute elements that require exploring and evaluating aspects of the novel; the object being to encourage a dialogue between the reader and the text, a consideration of the various ideas and feelings the book conveys and to connect all of this with the reader's own emotional world. The role of the educator must be taken on with enthusiasm and with responsibility, as they have a vested interest in improving and enhancing the connections between the reader and the literary work.

The layout of this reading guide highlights three essential points in the work of the teacher. The first stimulates motivation prior to contact with the novel and also aims to boost personal and social skills (emotional identification and expression, empathy and self-esteem, responsible decision-making and social skills, among others), by means of some activities to do "Before reading". Subsequently, in the section "During reading", activities are to be carried out in parallel to reading chapters of the book. The activities in this stage are related to the texts and address the readers' emotional, cognitive, social and creative development as well as strengthening the habit of reading. In addition, the expression of opinions, interchange and participation in the activities should be encouraged and, if the teacher deems it convenient, some of these may be used depending on pupils' reactions and the interest they have garnered. Lastly, in "After reading" there are a number of proposals aimed at summing up the main aspects seen in the earlier activities, the overarching objective of which is none other than to strengthen emotional lessons and the personal and social skills that have been worked on in the previous stages, as a way of smoothly transferring them into the pupils' daily lives.

The reading guide is simply a tool to be used by the educator to bolster the reading habits of his or her pupils and to help them along their personal, social and creative development. This is the ultimate objective of the activities proposed herein.



1 | INTRODUCTION: Literature and science in Spanish and English

What might lead a wounded teenager suffering from amnesia to try to solve a complicated criminal case in a mansion with a group of people he has just met? For starters, some excellent deductive talents and observational skills that are key to his emotional and creative development. We are, in fact, talking about the legendary character of Sherlock Holmes.

The educational programme *Responsible Education* has selected the novel *The Missing Detective* as a vehicle to be used to stimulate the emotional, social and creative development of pupils in Compulsory Secondary Education for several reasons:

- The novel's main character, a very young Sherlock Holmes, is able to mentally reorganize the world he sees, to interpret and transform it with his creative mind. The book brings to life this character, created in 1887 by the Scottish writer Sir Arthur Conan Doyle.
- The rest of the story's teenage characters are young talents in science –mathematics, astronomy, physics– who are brought together for a few days to a mansion to take part in a competition organized by a millionaire showcasing young people's talents and creativity. To this encounter of literature and science should be added the fact that one of the characters is a teenager who has to fight the discrimination that women in science were made to endure in this period. This bright young woman is none other than the scientist Marie Curie.
- The book is published in Spanish and English, in the same manner as this reading guide. Consequently, the transversal nature of this project embraces not just the subjects of Mathematics, Physics and Chemistry, or Biology and Geology, but also that of First Foreign Language, in addition, of course, to Language and Literature.
- The appendix at the end of the book includes Marie Curie's biography, scientific explanations of some of the facts told in it and a number of experiments that invite readers to play an active part in science.

You have in your hands, in short, a tool that proposes a fun approach to help us stimulate the emotional, cognitive and social development of our pupils while at the same time activating their creativity. In a similar manner to how Sherlock Holmes' creative mind reorganizes the world he observes, and how it interprets and transforms reality too.

In these pages, teachers will find sets of activities that will serve to guide and support their work as mediators between the book –*The Missing Detective*, by David Blanco Laserna (published in Anaya's Código Ciencia collection and illustrated by Puño)– and its secondary school readers. Said activities will be useful to work on skills such as emotional identification and expression, self-esteem and empathy, to mention just a few.

The guide should be taken as an enjoyable and flexible programme, which is presented in five sections: in the second, following this introduction, are some details to familiarize readers with the author and his works, and in the third with the illustrator; the fourth and most lengthy section activities are described, organized into three groups: before, during, and after reading, and lastly, in the fifth a suggested bibliography and internet links, for further reading and information.

Teachers will observe that each of the proposed sets of activities focuses on working on one or more of the variables of the Botín Foundation's *Responsible Education* programme. An outline of activities and variables can be seen in the following table.



| | ACTIVITY | VARIABLES |
|---------------|-------------------------------|--|
| BEFORE | 1. First impressions | <ul style="list-style-type: none"> • Emotional identification and expression • Interactive skills • Assertive opposition skills |
| | 2. On, in... | <ul style="list-style-type: none"> • Interactive skills • Assertive opposition skills • Creativity |
| | 3. Clues the pictures give us | <ul style="list-style-type: none"> • Self-esteem • Self-affirmation skills • Creativity |
| | 4. Getting our bearings | <ul style="list-style-type: none"> • Self-control • Assertive opposition skills |
| | 5. Off to a good start? | <ul style="list-style-type: none"> • Empathy • Emotional identification and expression |
| | 6. Nemo | <ul style="list-style-type: none"> • Self-esteem • Emotional identification and expression • Interactive skills |
| | 7. A touch of science | <ul style="list-style-type: none"> • Self-esteem • Self-affirmation skills • Creativity |
| DURING | 1. My detective diary | <ul style="list-style-type: none"> • Empathy • Creativity • Interactive skills |
| | 2. Important words | <ul style="list-style-type: none"> • Creativity • Responsible decision-making |
| | 3. A mysterious mansion | <ul style="list-style-type: none"> • Empathy • Interactive skills • Creativity |
| | 4. Detailed description | <ul style="list-style-type: none"> • Empathy • Creativity |
| | 5. Key objects | <ul style="list-style-type: none"> • Creativity • Empathy |
| | 6. Death Threat | <ul style="list-style-type: none"> • Positive attitudes to health • Responsible decision-making |
| | 7. Find out who you are! | <ul style="list-style-type: none"> • Self-esteem • Positive attitudes to health • Empathy |
| | 8. Piecing together the story | <ul style="list-style-type: none"> • Creativity • Empathy • Emotional identification and expression • Interactive skills |
| | 9. A touch of drama | <ul style="list-style-type: none"> • Self-control • Creativity • Interactive skills |
| | 10. Thanks for everything | <ul style="list-style-type: none"> • Emotional identification and expression • Empathy |

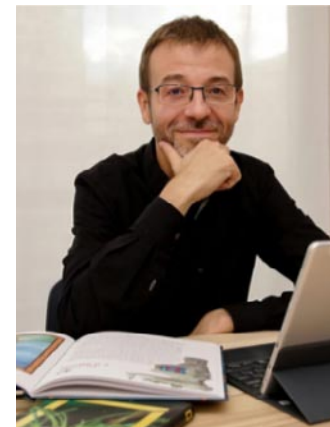


| AFTER | ACTIVITY | VARIABLES |
|-------|--|---|
| | 1. What shall we do now? | <ul style="list-style-type: none"> • Emotional identification and expression • Creativity • Responsible decision-making • Self-control • Assertive opposition skills |
| | 2. All together | <ul style="list-style-type: none"> • Empathy • Self-affirmation skills |
| | 3. Good and bad decisions | <ul style="list-style-type: none"> • Responsible decision-making • Empathy |
| | 4. Let's make a comic | <ul style="list-style-type: none"> • Positive attitudes to health • Creativity |
| | 5. Investigator investigated | <ul style="list-style-type: none"> • Interactive skills • Creativity |
| | 6. Debate | <ul style="list-style-type: none"> • Assertive opposition skills |
| | 7. Everyone has a story to tell | <ul style="list-style-type: none"> • Empathy • Emotional identification and expression • Creativity |
| | 8. Memory loss | <ul style="list-style-type: none"> • Self-esteem • Self-affirmation skills |
| | 9. Fallen from the sky | <ul style="list-style-type: none"> • Interactive skills • Self-control |
| | 10. In good company | <ul style="list-style-type: none"> • Responsible decision-making |
| | 11. From Archimedes to Newton | <ul style="list-style-type: none"> • Self-affirmation skills |
| | 12. The scientist who was ahead of her times | <ul style="list-style-type: none"> • Empathy • Assertive opposition skills |



2 | THE AUTHOR AND HIS WORK

David Blanco Laserna (<https://www.davidblancolaserna.com>) is a physicist and a writer. He has published over ten informational scientific books for adults, which deal with such subjects as black holes, the discovery of gravitational waves, the Higgs' Boson, Stephen Hawking's physics and the theory of evolution. He is also author of numerous books for children and young adults, both fictional and factual with scientific topics. His books have been translated into languages such as Basque, Galician, Catalan, English, French, Italian, Portuguese, Russian and Korean. Some of them have also been published in magazine form, under the *National Geographic* label, as well as in a specialist collection by *Le Monde*.



In his children's books he experiments by mixing science and fiction, looking for paths readers can follow to discover a strong emotional connection to physics, biology or mathematics.

He has given talks and lectures, has contributed to school textbooks and given workshops about experiments, reading encouragement and introducing science through games and handicrafts.

3 | THE ILLUSTRATOR AND HIS WORK

David Peña Toribio, known as Puño (<http://www.kokekoko.com>), has worked as a professional illustrator since 1994 and as an educator specializing in creativity, illustration and graphic storytelling, since 1997.



He has lived in Madrid, La Coruña, Paris and Amsterdam. Currently he is in Medellín, where he works and spends time on a variety of cultural projects such as a secret film club.

In addition to the books illustrated by him, he is the author of *Yo leo* (Ediciones Blur), *¡Ñam!* (SM), *L'homme* (Cream e-books), *ALFabeto* (Kalandraka), *El monstruo Malacresta* (SM), *Recién pintado* (SM), *The Acid Trip* (RLV-Papers), *Descubre el arte* (Fundación Telefónica) and *La niña invisible* (SM), as well as of various self-published books.

An experienced self-publisher, he founded and ran the Ultrarradio publishers from 2010 to 2013. He has also directed a one-year course in Illustration and Graphic Novel Projects at the Instituto Europeo di Design in Madrid, and he curated *La Ciudad en Viñetas* exhibition seasons for the Madrid City Council from 2012 to 2015.

He has been awarded the Nontze Film Prize 2006, the Cinemad Photography Prize 2008, the CreaComic Prize 2009, the SM Foundation's International Illustration Prize 2009 and the Barco de Vapor Children's Literature Prize 2018.

4 | ACTIVITIES

BEFORE READING

1. FIRST IMPRESSIONS

(Emotional identification and expression, interactive skills, assertive opposition skills)

Before beginning reading the book, pupils will look at it from the outside. They will observe that a lot of information about it may be found there, especially on the cover¹ and the inner sleeves: title, author's name, publisher's name, name of the collection, plot synopsis, short description of the collection and of other books published in it, a biography of the author, information about the scientific knowledge the book is going to deal with...²

Pupils in groups should be asked to share their impressions about the title, the cover picture and the rest of the information they have observed. The objective of the activity is to anticipate, as a team, aspects of the story they are going to read, while at the same time awakening their group interactive skills to arrive at shared conclusions.

Pupils will look up the meanings of the word *missing* in a dictionary and attempt to decide which of them might best match the title of *The Missing Detective*.



Questions like the following ones can be asked as a way of activating prior knowledge: *Do you think the main character is a detective? How can he be the main character if he is missing? What does the title mean? What feeling do you experience when you look at the picture of the mansion shrouded in darkness? Who is in front of the house, lying in the snow? What do you think might have happened? Why can we see a skeleton in one of the windows? How does the cover make you feel?*

The teacher will ask about the dedication on page 7. *What connection do you think there might be between the story and the terrace, the rocking chair and the mystery novels?*

This moment can be used to classify the book according to its literary genre (novel) and to comment on its characteristics.

The teams will use their ideas to build a joint theory about the theme of the novel. To achieve this they will have to negotiate and discuss until a consensus is reached. Once they have arrived at this, they will share their theory with the rest of the groups and subsequently make conclusions as a whole class.

¹ The teacher can explain that the cover is the outer sleeve that protects the book. The back cover is the part that covers the back of the book, and the inner sleeves are the folded pieces of the cover inside the book at both front and back.

² It is possible that some pupils may be using a digital version of the book. In these cases pupils can familiarize themselves with these external elements by working with a partner who is using a printed version.

2. ON, IN...

(Interactive skills, assertive opposition skills, creativity)

The contents page deserves special attention because of the chapter titles: *A blank mind. On guard. On tenterhooks. In suspense. In a trance. In danger. In check. In clear.* The pupils shall consider what these titles have in common, what they evoke, what each of them expresses, and what emotions they would attach to each chapter title. They may use the dictionary to look up the meaning of some of the expressions.

The whole class will engage in a brainstorming session to think of more expressions in English starting with the prepositions *on* or *in*: *on purpose, on track, on board, on screen, in doubt, in fashion, in demand, in isolation...*

Judging by the titles in the contents, which chapters do you think will be most exciting? Do you think things will be solved at the end? Why? What would happen to the story if we changed the order of the chapter titles? Could you make up another story?

After this introduction, pupils working in groups have to find clues in the contents page about the book they are going to read and to make up a story following the thread of the chapter titles. The pupils' interactivity in each team (discussion, argumentation, listening skills...) should lead them towards a joint proposal which they will present to the rest of the class. The teacher will guide them so that they may disagree without any ensuing conflict, and should these arise they will be resolved in a positive manner.

This pooling of ideas will help to anticipate what the book will be about (going further than the brief plot outline in activity 1. *First impressions*) and to increase pupils' expectations regarding the story they are going to read.³

3. CLUES THE PICTURES GIVE US

(Self-esteem, self-affirmation skills, creativity)

Pupils will now skim through the inside of the book to get their first impressions about the smell and feel of the paper, the type font used...

The teacher will suggest they take a longer look at the novel's illustrations on pages 21, 40, 57, 73 and 91. The digital version of the book also contains these pictures. *Who do you think is the main character of the story? Why? What do you see in the illustrations to make you think that?*

When it comes to working with the illustrations we will use visual thinking techniques, by means of which the teacher poses questions that invite the class to explore the illustration, on the one hand connecting it to pupils' emotional, cognitive and social experience and, on the other, allowing teachers to work with other subjects –literature, sciences, history or art– if they consider it apt. Employing a similar approach to the techniques found in the **ReflejArte** resource.



³ It is recommended that these stories be revisited after pupils have finished the book, with the aim of checking if the book fulfilled their expectations, and if they were right about any of their predictions, etc.

Subsequently, in groups, the drawing on page 91 will be looked at in-depth. To encourage greater development of pupils' powers of observation,⁴ the following questions will be used to analyse the picture with the whole class:

- *What place is shown in the picture? What part of a house is shown? Do you think it is related to the cover? Does it depict our times? What period do you think it is? Why? What do you see in the picture to lead you to that conclusion?*
- *What kind of objects can be seen in the room? What do they tell us about the owner or owners (age, social status, education and culture, hobbies...)?*
- *What do you think the two people are doing? Do you think they live in the house? What kind of clothes are they wearing? Which things stand out in the picture?*
- *Judging from the picture, what do you think has happened? What can you see in the illustration?*

Even though it is a black and white picture, the teacher will encourage pupils to imagine colours. *What colours would these objects be? Why?*

The pupils have not met the character of Nemo yet, and so they do not know that he spots details nobody else would notice: clock mechanisms, ashtray stains... The teacher will ask the pupils to do this: to try to notice all the details, to look at the scene differently, from alternative perspectives –they might imagine that they are 5 year-olds, or ants– to imagine various possibilities about what might have happened, and they need to be given enough time to fully explore this.

For example: *judging from the objects in the room, the owner is probably a collector, in which case there might have been a burglary...; judging from the furniture and objects the owners are probably elderly, in which case they might have been found dead...*

Finally, in a large group, the pupils will support their theories with reasoned arguments and try to convince others, or simply contribute with points of view that could interest others, for which they need to rely on their skills and potential. There are no right or wrong answers, all contributions are valid as they are rooted in their experience and observation.

4. GETTING OUR BEARINGS

(Self-control, assertive opposition skills)

The story is set in London in 1873. Pupils will search the internet for pictures of London today and in the 19th century and they will compare the two.



Trafalgar Square in 1845 <http://dawlischronicles.blogspot.com/2015/11/the-original-nelsons-column-portsdown.html>



Trafalgar Square nowadays <https://www.london.gov.uk/about-us/our-building-and-squares/trafalgar-square>

⁴ Observation is key to developing emotional intelligence and creativity both of which are imperative for producing ideas.



They can look up some of the places that appear in the novel and analyse what they looked like before and after:

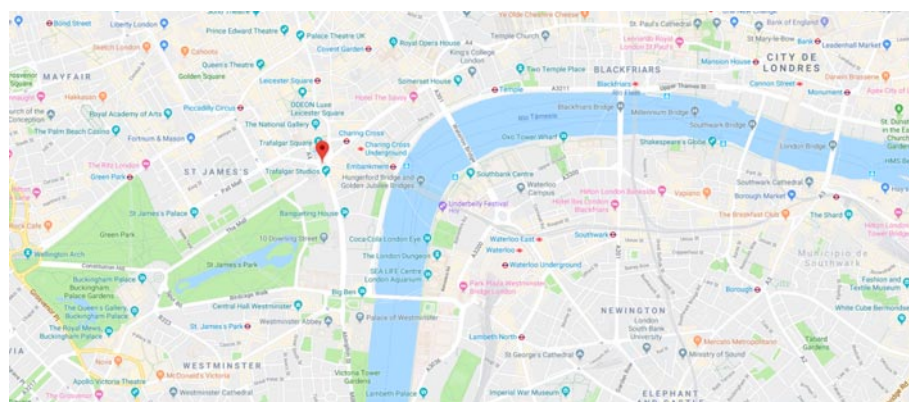
Dorset Street

Deptford Parish

Saint Paul's Cathedral

Victoria Station

Scotland Yard



Google Maps

These places mentioned in the novel should be located by pupils on a map of London. The teacher will also ask them to research the climate in London and to connect that information with the cover picture.

Pupils will fill in a table like the one below about London in the 19th century so that all the information they consider important will be gathered together:

Political situation

Structure of society

Means of transport

Clothes

Shops

After this they will talk in class about what they imagine life was like in London in that period, and about its advantages and drawbacks compared to modern life. They can do this activity as an interdisciplinary exercise, focusing on the subjects of **Geography** and **History**.

The teacher will take care to ensure that standards of classroom discussion are upheld so the activity can take place in an orderly and respectful fashion: arguments forwarded should be coherent and persuasive and thus defensible; the urge to abruptly interrupt a companion by speaking over them or answering back should be controlled, the ideas of others should be respected and pupils must use self-restraint to avoid expressing themselves too vehemently, etc.

5. OFF TO A GOOD START?

(Empathy, emotional identification and expression)

The beginning of a book can generate expectations about what is going to happen in the story. The teacher will read the first paragraph of the book aloud, conferring an air of mystery to the reading. This task can also be assigned to one of the pupils.

It was like waking up from a profound dream, but... it wasn't. He immediately knew there was something wrong. He wasn't wearing his pajamas or lying in bed. His only pillow was a strong feeling of cold that was so intense that it had left his cheek numb. When he opened his eyes, he found himself lying face down on the snow. He looked around. The wind was shaking a lamp that was hanging from a hook, over his head. The flashes of light were lighting the wooden sign of a wine warehouse, some wine barrels, the trap door to a coal bunker. The bricks on the walls formed the drawing in perspective of a dark alley. From the end of it he could hear the sounds of the city, muffled by the distance... (page 9)

The aim here is that pupils understand they are going to read a mystery novel and feel excited about starting it. This reading can be accompanied by some typical suspense film music.

Pupils, as a group, will agree to some hypotheses about the text they have heard read: if it is day or night, if the main character is a man or a woman, the season of the year ...

The teacher will ask pupils to put themselves in the character's shoes, as he wakes up in the snow, and try to imagine what he feels, thinks, the things he is frightened of...

The activity ends with a written expression exercise in which pupils will choose a moment in their lives when they underwent some difficulty (it can also be a dream they have had) and they will try to write about it in a literary fashion, expressing not just what happened but also their emotions and feelings.

6. NEMO

(Self- esteem, emotional identification and expression, inter-active skills)

The story's main character is called Nemo. What does this name evoke to you? What do you think it has to do with the book? Do you know of any films in which the main character is called Nemo? Think about Julio Verne's novel in which one of the characters is called Nemo. What is the connection between them?

In fact, the main character of this book is not called Nemo, though someone has given him this nickname until he discovers his real name:

Jules Verne is my favourite author. Nemo means "Nobody". He was an Indian prince and that bandage that our friend Thorndyke has put around your head makes you look like a true maharaja. It's perfect. (page 23)



The pupils will read the quotation above and look at this illustration from the novel.

- Which of the two is Nemo? How do you know?
- Think about the meaning of Nemo. Why do you think they chose this name for him? What happened to him?
- Relate these observations to the beginning of the book, when he wakes up and does not know where he is.



The teacher will ask pupils what name they would like to be called if they had to choose a name to be the character in a story, or to take part in a game... Each of them will explain orally to their classmates their reasons for choosing a name and how it relates to their personality.

The emphasis here is on the importance of names, of knowing the names of other people, of calling people by their names and not in other ways...

7. A TOUCH A SCIENCE

(Self-esteem, self-affirmation skills, creativity)

The teacher will draw attention to the following information on the back cover, which pupils read earlier in activity 1. *First impressions*:

In this book you will find:

- A short biography of Marie Curie
- The hidden forces of atoms
- A demonstration of how senses can deceive us
- Oxidation processes
- The influence of living beings on the composition of the earth
- Radioactivity
- Chemical Reactions

Then the class will do some brainstorming⁵ about all or some aspects that will be dealt with later in the book (both in the story and the *Appendix*). The pupils should give free rein to their creativity and participate with any ideas they come up with, without worrying about whether they seem far-fetched. Any idea is worth mentioning. No one should feel that his or her contributions are less valuable or are unworthy of being considered.

This activity can be combined with **Physics and Chemistry** classes.

If the teacher gives pupils sticky notes on which to jot down their ideas, then afterwards he or she will be able to see what the pupils know about these subjects and what other things they would like to know.

DURING READING⁶

1. MY DETECTIVE DIARY

(Empathy, creativity, interactive skills)

As reading progresses, pupils will attempt to get closer to solving the mystery and they will note down their clues in a notebook or detective diary.⁷

⁶ It is worth pointing out that critical thought, self-censorship and interrupting others are not part of the brainstorming technique.

⁶ Activities 1, 2 and 3 of the “During Reading” section are designed to be done during the entire reading process. Both the *Detective’s Diary* (act. 1), *the Glossary* (act. 2) and *the Map of the Mansion* (act. 3) will serve as tools to investigate the mystery as reading progresses and to actively take part in it, and additionally, as a helpful reminder for some of the subsequent activities to be carried out in “After Reading”, for example activity 11. *From Archimedes to Newton*.

⁷ *The notebook or detective diary could also be designed in digital form as a blog.*



As they advance in their reading, pupils will have to put themselves in Nemo's position: *I woke up wounded in the middle of the snow. I have lost my memory. It looks like I was attacked. I follow the tracks to the mansion. I meet people there. Then a strange robbery takes place ...*

The teacher asks pupils to note down any incidences, clues, suspicions, important events, theories and important paragraphs in the novel... as well as their thoughts about them.

Here are a few ideas for writing that may help pupils:

- On the cover of the notebook write: Detective (your secret name), case name, place and date.
- Like in a diary, put the place and the date at the start of each new entry.
- Ask yourself questions and write them down. Then write some possible answers. Start with the ones you are sure about, then write the ones you suspect, and finally note down who you need to question, what places and objects should be closely observed...
- Accompany the text with some extra materials such as: drawings, maps, cut-outs, messages, key words, physical evidence...
- Use clues to reach conclusions and theories.

The teacher will ask pupils, as they progress with their reading, to observe the facts in different ways, imagining new possibilities and alternative ways of doing things and of problem-solving.

When the diary is finished several sessions can be set aside for reading them aloud and sharing the parts that each pupil judges most interesting. Another option would be to organize an public exhibition of the detective diaries when reading has concluded, in the manner of **Somos Creativos**.

2. IMPORTANT WORDS

(Creativity, responsible decision-making)

As pupils progress in reading, they will make a glossary of the scientific terms that appear in the book, relating their reading with the knowledge they are acquiring in the subjects of **Physics, Chemistry, Biology, Geology and Mathematics**.

In addition to words related to science, they should also make a note of others that are important for the investigation, e.g. the names of places, objects and characters.

The glossary should be written on cards arranged in alphabetical order kept in a folder or on a computer. Pupils will need to depict some words using drawings and to make an artistic cover and general design for the glossary, in a similar fashion to the previous activity.

The teacher will explain the importance of having criteria for choosing the words to be in the glossary. The objective is not to note down all the words related to science that crop up, but rather to make decisions, in each case, about whether these words are relevant to the investigation or not and they can even look for some synonyms to increase the range of their vocabulary.

This activity may be viewed as complementary to activity 1. *My detective diary*, because both the diary and the glossary act as tools pupils can use to try to solve the case as they progress from one chapter to the next.



3. A MYSTERIOUS MANSION

(Empathy, interactive skills, creativity)

While they read, pupils should make a note of the various rooms in the mansion that are mentioned and of the page number where they appear, in particular the first time they are described:

- Library (pages 32 and 67))
- Laboratory (page 27)
- Bluebeard's room (pages 37 and 52)
- Music room (page 38)
- Billiards room (page 28)
- Sitting room (pages 38, 39 and 92)
- Dining room (page 48)
- Conservatory (page 72)



Pupils will draw maps of the mansion's various floors to help them visualize what happens in each room. Thanks to the map and to activities 1. *My detective diary* and 2. *Important words*, pupils can put themselves in Nemo's position and actively participate in the investigation by proposing their own theories.

Whereas the diary and the glossary are individual activities (unless the teacher should decide otherwise), the map of the mansion should be worked on in groups. The activity will encourage collaboration work and reciprocal support among group members, who should be working together respecting their companions' proposals in pursuit of a common goal.

This activity could be taken further by working in groups to create a Cluedo-style board game using the mansion's floor plans and preparing a set of clues to be solved; *Sherlock Holmes, assistant detective*; *Escape the Room...*

4. DETAILED DESCRIPTION

(Empathy, creativity)

During the reading of **chapter 1. A blank mind** (read from page 9 to 20), the pupils will see this drawing of Nemo with Mr Crispin and read the description of the latter:

Mr Gideon Keith Crispin was so bony and small that he looked like a ventriloquist puppet that someone had taken out from a drawer. His prominent eye sockets and cheeks gave him a chimpanzee-like air, which was further accentuated by his stooping back, his long little arms and his short height. He protected his bald head with red velvet cap, from which there were some white long and thin hairs coming out which flew





about him whenever he moved. He was wearing a pair of red checked trousers and an extravagant mustard coloured waistcoat, and was holding a walking stick. (page 20)

The teacher will ask them to describe in writing the other character in the drawing: Nemo. To do this they will need to demonstrate their powers of observation to catch all the details, not solely appearance, but also personalities and the way the characters act.

The teacher might suggest that –in a manner similar to this extract about Mr Crispin– pupils could also employ comparatives, metaphors and a rich, wide-ranging vocabulary to thus strengthen the cognitive aspect of creative writing. Despite the fact that it is a black and white drawing, they can imagine it with colours.

5. KEY OBJECTS

(Creativity, empathy)

In **chapter 2. On guard** (read pages 25 and 26), the teacher will ask pupils to note down in their detective diaries the objects Nemo finds in his pockets:

- A pocket watch with the initials S.H. engraved on it
- A parcel of paper wrapped around two stacks of banknotes: a total of 100 pounds.
- A parcel of paper containing three bronze-coloured stones that look like they came from another planet.
- A ball of putty the size of an olive. Drawn on one of its sides are three vertices of a polyhedron.

Pupils will have to research questions such as: *What were pocket watches like in that period? How much was 100 pounds worth at the time? What would you have done with this money? What does the colour bronze look like? What is a polyhedron? Where did you find the answers to these questions?...*

They can try to guess what these objects found in the pockets of the boy who has lost his memory might mean.⁸

Lastly, and voluntarily, some of the pupils will empty their pockets in the classroom and the rest of the class has to deduce things about their daily lives and their personality by analysing the objects they have on them at that precise moment.

6. DEATH THREAT

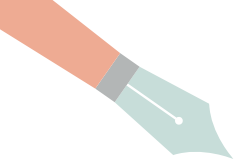
(Positive attitudes to health, responsible decision-making)

In **chapter 3. On tenterhooks** (read pages 48-50) pupils discover that Mr Crispin has received the following message:

If you don't give us the idol before tomorrow at midday, Nachtali, the wandering warrior, will fall from the stars to recover his heart. And as payment, he will take part of yours. (page 50)

The teacher will advise pupils to copy the message into their detective diaries, making a note of the chapter and page it appears on, and to think about it, as this message could be a major clue for their investigation. They can also add some new words to their glossaries, such as *idol* or *Nachtali*.

⁸When pupils finish the book they can come back to their theories about these objects to see if any of their predictions were right.



When they are clear about what the idol is, who the wandering warrior is, and why this figure will fall from the stars, and just what the author of this message means when referring to recovering the heart and taking it to Mr Crispin, the class will share their ideas and debate about some of the traditions of indigenous peoples they have heard about, or which can explained by the teacher.

The activity can be connected to the study of **Biology and Geology** (meteorites) and of **Geography and History** (the world's many different cultures).

Before continuing reading the chapter, pupils will decide what the inhabitants of the house could do to keep Mr Crispin safe. They may work individually or in groups, but the ultimate objective must be to design a plan or a strategy to ensure the safety of the people in the house. They should decide whether or not protecting the people comes before protecting the works of art and other valuable objects (in this case the meteorite) and propose reasoned arguments. They will note down their plan in their detective diaries.

The sharing of ideas could be done using role-playing techniques, according to which some of the pupils would act out the situation as though it were happening in real life.

7. FIND OUT WHO YOU ARE!

(Self-esteem, positive attitudes to health, empathy))

Since Nemo has lost his memory, in **chapter 4. In suspense** (read pages 56-59), he has to use his observation skills and his extraordinary deductive powers to find out things about himself.

Accordingly, Nemo knows that he arrived from France in a ship and that he caught a train to London from the port. He also discovers that he knows how to fence and box. Amazing, right?

Now it is the readers' turn. The teacher will ask them to look at themselves in a mirror and to say what aspects of their lives can be deduced by their appearance. They should notice their clothes (if they are clean, worn or have stains on them, the style...), their shoes, their hair and their skin, their accessories (watch, glasses, earrings...), etc. They may also analyse their gestures, their accent when speaking and their way to express themselves.

They should demonstrate they are able to perceive themselves and skilful at conveying their personality to others. It is important, during this consideration, that pupils express a positive evaluation of themselves.



When it comes to sharing the results of the activity, the teacher will encourage positive feelings during contributions by pupils who wish to receive comments, and help them to be aware of the importance in life of having a positive image of oneself and confidence in one's potential.



The teacher will ask them to make an effort to describe themselves. As well as looking in the mirror like Nemo, they should look inside an inner mirror to see their powers and their limitations. Additionally, caring for health may be seen as a positive way to behave towards oneself. Habits that can help us to feel good and to lead more healthy lives will be considered at this point: a rich and varied diet, physical exercise and outdoor activity, the importance of rest and of a responsible use of technology.

Lastly, and with the aim of working on empathy, the teacher will ask pupils to describe how they view one of their schoolmates. Then the descriptions could be read out, without mentioning any names, so that the rest of the class have to guess who it is. Respect for others should be stressed and descriptions that might make another person feel bad should not be expressed.

8. PIECING TOGETHER THE STORY

(Creativity, empathy, emotional identification and expression, interactive skills)

In **chapter 4. In suspense** the teacher will ask pupils to stop reading when they get to the end of page 71, as Nemo decides to go to the mysterious appointment inside the glasshouse.

Pupils must piece together what will happen next in the story basing their ideas on the picture of Nemo in the glasshouse (on page 73). *What makes you think he will go? What will he realize when he gets there? Where did you find this information? Are they attempting to lead him away from something? Who will he meet in the glasshouse? What is going to happen?*

They need to look closely at the picture. *What feelings does Nemo's face reflect in the glasshouse? Would you feel the same in his situation? Why?*

After doing this they will write a couple of paragraphs imitating the author's style, as though they had been told to continue the chapter.

Lastly, these short texts will be read in a single group and the class as a whole will choose which of them are most original, or, alternatively, pupils will write a single ending altogether after agreeing the ideas among the whole class.



9. A TOUCH OF DRAMA

(Self-control, creativity, interactive skills)

After reading **chapter 5. In a trance**, the teacher will propose staging, in groups of 9, the conversations, on pages 76-78, by the library door between most of the characters: Clifford, Dickson, Johan, Marie, James, Bernhard Trent, Mr Crispin and Nemo. Each group will have a director and 8 actors. The roles will be divided up among the group, independently of whether they are male or female. Each pupil has to play the part they are given. This will confer the dramas a touch more originality and will mean that



each of the sketches will be different to the others. If one team has too few actors, some of the pupils can play two roles.

The first thing pupils need to do is to transform the novel's dialogues into a dramatic narrative by creating a script. To accomplish this they have to write the names of the characters followed by a colon before they speak, and to add stage directions about the location of the scene and about any of the actor's gestures or movements that are deemed necessary.

When each actor has memorized his or her part of the script, rehearsals for the performance will begin. This activity serves to work on pupils' self-control, since acting in a dramatic performance requires being able to control oneself, to manage one's emotions in the rehearsals and the final performance, as well as to follow a set of rules and to adapt to particular circumstances.

As far as staging goes, pupils may use dressing-up clothes, props (that they have brought from home) and any elements of scenery that they have already finished in class.

The actors should speak loudly and clearly, understanding the importance of the non-verbal language of gestures, of intonation, of rhythm, of movement on stage... Both verbal and non-verbal language will be evaluated.

The audience should listen to other groups attentively and respectfully and applaud at the end. The teacher will use the situation to remind pupils about the behaviour they should show when they attend public performances such as concerts of different kinds of music, theatre, cinema and art exhibitions...

This activity can help us to prepare **Somos Creativos** of this resource.

10. THANKS FOR EVERYTHING

(Emotional identification and expression, empathy)

Several passages found in the book can serve to work on gratitude, a highly important attitude in life which produces many benefits.⁹

Once the **Epilogue. In clear** has been read, but before pupils begin reading the **Appendix**, the teacher can bring to mind those parts already read in which the theme of gratitude is foremost:

The young man got a lump in his throat. After all the anguish and abandonment he had felt in the last few hours, that old man's kindness disarmed him completely. He felt a strong desire to embrace him, but in the 19th century, men simply didn't embrace each other. To express their affection, they patted each other on the back. But this was something that the young man didn't feel strong enough to do, and that Mr Crispin probably wouldn't resist.

'Thank you,' he said with a trembling voice.

'There's no need to say that,' Mr Crispin nodded with satisfaction. (chapter 1. A blank mind, pages 20-22)

⁹ The psychologist Sonja Lyubomirsky (<http://sonjalyubomirsky.com>) maintains that people who are grateful tend generally to be happier and have more energy. Gratitude also makes them feel more optimistic and satisfied with life, and they feel positive emotions more frequently.



'Does he usually have dinner with you?' Nemo asked.

'He never misses a meal,' James nodded. 'Something really horrible must have happened to stop him from coming here and giving us one of his monologues.'

'He is a chatterbox,' Clifford confirmed. 'I think that this competition is nothing but an excuse for him to be surrounded by defenceless youngsters to torture with his speeches.'

'Shhhh, don't be ungrateful,' Marie reprimanded them, with a smile.

'I'm extremely grateful to him,' James excused himself, 'but that doesn't mean he isn't a little boring. (chapter 3. On tenterhooks, page 48)

He helped the woman, Mrs Phyllis James, to cover the shop window with planks. She later took care of locking the shop and gave him a piece of paper where she had written the address of his older brother, Mycroft Holmes. Sherlock thanked her for everything and sealed her forehead with a loud kiss. Then he ran to Mr Crispin's mansion to inform him about his real name. And to excuse himself, because that night they weren't going to share Mrs Sayer's exquisite pudding. That night he preferred to sleep at home. (Epilogue. In clear, page 129)

The pupils should try to identify with the characters that intervene in each of these extracts and determine whether or not their signs of gratitude are sincere, explaining their ideas in a reasoned manner.

Subsequently, in a single large group, the pupils will talk about gratitude: if they find it difficult to say thank you, if they do it usually, if they are grateful to others for something, if they feel upset when others do not thank them, etc. Pupils should be encouraged to speak out and express what they really think and to respect the opinions of others; there are no wrong answers here.

AFTER READING

1. WHAT SHALL WE DO NOW?

(Emotional identification and expression, creativity, responsible decision-making, self-control, assertive opposition skills)

The objective of this activity is to observe how Nemo reacts to problems and to suggest, as a group, other possible ways of acting when confronting these circumstances.

The teacher will separate the class into four groups and divide up the following situations that Nemo confronts in the novel between them:

- When he wakes up in the snow wounded and suffering from amnesia.
- When he wakes up in bed with his head hurting and bandaged.
- When he realizes the police are going to blame him.
- When he has solved the case, but still does not know who he is.



Group work will progress through the following stages:

- 1 Look at the scene from a different angle and imagine some new alternatives for the story.¹⁰
- 2 Working as a group, think up a new solution to the problem that Nemo has to confront.
- 3 Share with each other, in a single large group, the work done.
- 4 Emotional self-appraisal: ask pupils to express how they felt working in a group, what was the hardest part, the things they liked most or least, what they would change, what other topics would they like to work together on, etc.

2. ALL TOGETHER

(Empathy, self-affirmation skills)

Pupils will fill out the following character sheet individually:

After this, now back in groups, pupils should consider the relationships between the four contestants. They can use this extract as their starting point:

| | Clifford | James | Marie | Johan |
|----------------------------|----------|-------|-------|-------|
| Brief description | | | | |
| Scientific connections | | | | |
| Their part in the robbery | | | | |
| Other actions in the novel | | | | |

After this, now back in groups, pupils should consider the relationships between the four contestants. They can use this extract as their starting point:

Clifford came running into the living room and joined them, looking back over his shoulder, as if he were being chased by a tribe of cannibals. He nearly knocked down a glass cabinet with a collection of insects in amber. After making sure that nobody was following him, he faced the disapproving expression of Johan, Marie and Nemo.

'Hey, if looks could kill, I would be instantly struck dead.'

'We won't be that lucky. Don't you realize that nobody likes you?' Marie told him bluntly. 'You're the only thing I don't like about this journey and the only reason why I will be happy when it's over.'
(page 41)

¹⁰ The teacher will encourage the class to have an open attitude in order to consider alternatives.



Following his investigative instincts, Nemo tells inspector Appleby the name of the person, or rather the names of the people –the four youngsters– guilty of the attack and the robbery, though the person really to blame is James. Pupils should discuss as a group if James’s behaviour during the book is more understandable now that they know he is to blame. For example:

- When Nemo met James in the mansion, the latter looked at him with an expression of terror on his face.
- It was James who really insisted that Mr Crispin should shut himself up in the library with the meteorite.
- James thought through the plan to protect Mr Crispin and deduced that it was flawless.
- He suggested closing the curtains so that the room would be in darkness.
- He claimed to have seen an old Eskimo on the esplanade.
- He suggested giving Mr Crispin some brandy and he passed the bottle on to the police.
- He always defended Nemo (so that when he recovered his memory he would not betray him).

Furthermore, at the end James is revealed to have done some other things too:

- He put a hallucinatory drug into Mr Crispin’s drink and he placed a bag of invisible ink on him that turned red when heated.
- He wrote a note to Nemo and arranged to meet him in the glasshouse.

Lastly, pupils should think about the teenagers’ teamwork in the novel: *What would have happened if one of them had failed to play their part? Do you think one person could have done everything singlehandedly? Who planned the robbery and manipulated everyone else? Who knew everything but thought that it was a joke? Who are completely innocent?* They must justify their answers.

As a single large group, pupils will share their conclusions. The teacher will ask them to see the activity in relation to their own teamwork (in general, during the whole course). *What things could not be done alone? Is there anything you would prefer to do alone? What happens when a member of the group does not do their part of the work?* Subsequently, they will see their class teamwork in relation to their own lives and think about the importance of collaborating with others to achieve things.

Active listening is encouraged for this part when pupils are sharing their conclusions, relating them to their own lives and doing this in detail by explaining the importance in their daily lives.

3. GOOD AND BAD DECISIONS

(Responsible decision-making, empathy)

Firstly, pupils will read parts of the book in which Nemo decides to do something at a specific point in the story. Some of the pupils can read them out loud to the rest:

It was starting to snow again, not very heavily yet, but in an hour’s time another thick layer of snow would cover the footprints. He didn’t have the time to follow both trails. Which one should he follow? His own footprints might lead him home. His attacker’s might expose him to dangers that he wasn’t even able to imagine. He only hesitated for an instant. The rage and indignation he was feeling led him to trying to catch the mysterious... (page 11)



While he examined the façade, the young man took air and wondered what the hell he was doing there. An inner voice warned him that he was putting his head in the lion's mouth. What if his attacker was precisely the owner of that residence? He was still in time to escape from danger. To tell the truth he wasn't in the right conditions to fight even a tiny beetle. He could hardly stand on his feet. The sensation of fear made him feel even colder and he wanted to turn back. (page 13)

The decisions Nemo makes will affect the entire story. *What would you have done in his position? Why? In the second part, do you remember if the house bell is eventually rung?*

Sometimes Nemo regrets the decisions he made:

Without his memory, he was defenceless in front of Marie, Johan, James, Clifford, Dickson, Mr Crispin... Any of them could have betrayed him. He had to admit that his plan to follow the footsteps had been a complete failure. (page 60)

Deep inside him, he knew he was about to make a fatal mistake. (page 62)

Sooner or later they would search his room. Would they find the money and the stones inside the urn? If they did, his situation was going to look really bad. He should have got rid of them. Why had he been so careless? He should have left early that morning, while he was still in time! (page 93)

Do you feel the same? Have you ever regretted a decision you made? When did that happen?

After doing this, pupils will focus on Mr Crispin and the decisions he made in the story:

- When Nemo turns up wounded at his house, he decides not to inform the authorities and to offer him shelter and care.
- When it has been proven that James planned the attack, he decides not to report him to the police.
- When the competition finishes, he decides that there will be no prizewinner.

Judging by Mr Crispin's behaviour, what opinion do you have of him? How could you describe his personality? Would you have done the same as him in some cases? What would you have done differently? Why?

Lastly, as a single group, the teacher will explain to the pupils that in order to make a responsible decision you need to take various options into account, choose a specific one and accept the consequences afterwards. Pupils will be encouraged by the teacher to recount their own experiences, if they find it hard to make decisions, if they think being indecisive could be a problem, if they are concerned by what others think when it comes to making decisions, if they regret decisions they have made ...

4. LET'S MAKE A COMIC

(Positive attitudes to health, creativity)

For this activity pupils will choose a subject from the book that they consider is related to positive attitudes to health and express their ideas in the shape of a comic. To do this, firstly they will need to search for an agreed definition of the term.



After doing this the teacher will ask them to choose one of the following topics:

- Food in Mr Crispin's house: the atmosphere in the dining room and its timetable, the cook (Mrs Sayers) and her way of cooking...
- The medical treatment that Nemo was given when he first arrived at the house, and the treatment Mr Crispin received after he was attacked.
- Mr Crispin's investments in projects related to the population's welfare.

Each pupil will think about the story they would like to tell in the comic genre, in relation to the topic chosen; it could be an extract from the book or something made up by the pupil. An alternative could be to express advice in the shape of cartoon strips, to make a comic strip...They could either use characters and settings from the novel or invent their own.

Before they begin the teacher will go over some features of comics:

- The text is divided up into drawings.
- The drawings in a comic are as important as the words. The book's illustrations can serve as inspiration.
- The spoken text is shown inside balloons or bubbles that can represent the narrator speaking, a dialogue, or someone's thought bubbles.
- In comics one can use a wealth of devices such as interrupted sentences, questions and exclamations, onomatopoeias (bang!) and replacing words with signs.

Lastly, an exhibition could be held to show the comics drawn by the pupils, or a loan system could be devised so that everyone can read the work of others, or a reading group could be started in order to exchange pupils' creations.

5. INVESTIGATOR INVESTIGATED

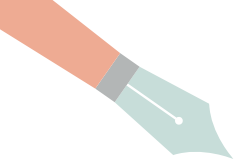
(Interactive skills, creativity)

Working in groups, pupils will create a presentation (either on cardboard, on the wall, or on a computer) about the literary character Sherlock Holmes.

Pupils will need to follow these guidelines in order to obtain and organize the information:

- Search for information about the writer Sir Arthur Conan Doyle.
- Write a short synopsis about the time and place in which he lived and add some pictures.
- Create a timeline of his life and the publication of his books.
- Find out some facts about the character of Sherlock Holmes and sum up his main traits. Speak about the inseparable Dr Watson too.
- Mention Sherlock Holmes' subsequent appearances in literature and film.¹¹
- Find some appropriate background music for the presentation (if it is being made on a computer).

¹¹ Pupils may possibly have seen the British television series called *Sherlock*, which began in 2010, starring actors Benedict Cumberbatch and Martin Freeman. If the teacher considers it appropriate, a scene from the series could be watched in the classroom. The official youtube channel of the series may be found here: https://www.youtube.com/channel/UCkp_CAX1elc5k5SavzbhN5w.



As they prepare the presentations, pupils will be using their interactive skills to work together as a group while also keeping their personal independence. The teacher will observe each group's communication skills and their respectful and collaborative behaviour.

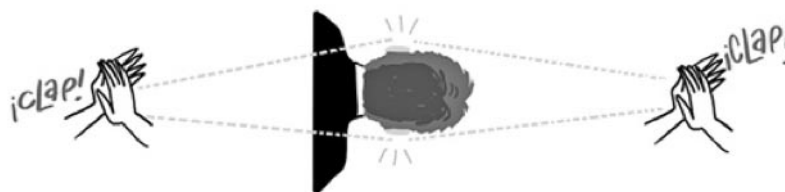
Printed presentations may be exhibited for a while on the classroom wall.

6. DEBATE

(Assertive opposition skills)

When the police officers and the youngsters enter the library to find Mr Crispin with blood on his clothes, it seems supernatural, because nobody went in or came out of the room. In the end, however, everything has a rational scientific explanation.

Page 151 of the *Appendix*, for example, contains an explanation about why Dickson thought the doorbell had rung, when actually it was a bell on the Christmas tree he had heard, and shows how our senses can deceive us sometimes.



In contrast to Nemo's way of thinking, in which everything has a rational explanation, there are other characters in the book, in particular Johan, who looks for solutions based on superstition despite being a science student.

The teacher will organize a class debate in which each group will defend one of these ideas:

- Everything that happens has a rational explanation.
- There are aspects of life that elude reason and which can be regarded as supernatural.

One of the pupils could act as moderator and the teacher will encourage positive skills to solve any conflicts that might arise and to ensure an orderly debate.

The teacher can decide which of the two teams has debated most consistently both as a group and in individual contributions by team members (intonation, non-verbal language, power of persuasion...).

7. EVERYONE HAS A STORY TO TELL

(Empathy, emotional identification and expression, creativity)

Pupils will choose one of the following secondary characters from the novel:

Mrs Sayers (cook)
Dickson Carr (butler)

Mrs Marsh (maid)
Cyril Appleby (inspector)



They will have to put themselves in the character's shoes and tell the story from their point of view, in the first person.

When they have finished writing and have checked their texts, they will read them aloud and comment on the emotions they think their character felt. It would be very interesting to compare different approaches to the same scene from several points of view.

The activity can be taken further by looking for similarities or differences with the pupils' themselves. As a drama therapy exercise, pupils could enact the scene as a tool for improved self-knowledge: to get to know themselves better by playing someone else and seeing how that person really feels.

8. MEMORY LOSS

(Self-esteem, self-affirmation skills)

The doctor tells Nemo he is suffering from post-traumatic retrograde amnesia. *Post-traumatic* refers to the cause of the amnesia and *retrograde* to the chronology of events that are forgotten. The teacher will ask pupils to research the nature of amnesia and its various types.

This work may be carried out in relation to the subjects of **Biology and Geology**.

Subsequently, in pairs, pupils will write down the advantages and drawbacks, for Nemo, of losing his memory. This could be done as a table. They should bear in mind some parts of the text, for example, when Marie says to Nemo: "You've lost your roots, but you've also got rid of your burdens." Or when Nemo says goodbye to Marie, at which point he "had the feeling that his only friend was leaving. A huge loss in his extremely brief history."

Conclusions will be shared together as a single group. Subsequently, the teacher will start a conversation in class about things one might prefer to forget or to remember... It is important for the pupils to see that we all have memories and experiences because we all matter. They should not feel that their memories, their recollections, are worth less than other people's. All of them are valid and should be regarded positively.

The session ends with a creative writing activity in which pupils recount memories from their childhood. They should write them in the first person. They will choose stories important to them and tell only the most relevant parts, those which made a lasting mark on them. They must also write about how they felt in those moments and how they feel now while they are remembering and writing about it.

9. FALLEN FROM THE SKY

(Interactive skills, self-control)

Pupils will go back to pages 52 and 53 and read what it says there about the Purple Rock. Then they will do an exercise about filtering and checking information: they must verify which parts of the story are real and which are fictitious (the minerals that come from outer space, the Arctic oldennui, the Purple Rock as a representation of the heart of a god, the Eskimos, Nachtali...). The teacher will check to see that pupils consult in the right places (official or reliable websites).

Subsequently, pupils will present their conclusions in small groups and finally in a single large group.



This activity may be complemented transversally with the subjects of **Biology and Geology**. In this regard, the teacher can ask pupils to research and prepare an oral presentation about meteorites in groups.

When it comes to the delivery, each group member will have to prepare a part of the presentation and be responsible for his or her contribution. Gradually the pupils will get used controlling their fear of speaking in public and the teacher will speak to them beforehand to underline the importance of this skill.



Meteor <https://lifeandstyle.mx/mundo/2019/03/20/nasa-detecta-meteorito-10-veces-energia-bomba-atmica>

The activity can finalize with an assessment or a co-assessment (in pairs) where the pupils rate the work done by the other groups.

10. IN GOOD COMPANY

(Responsible decision-making)

The novel's author mixes fact and fiction, literature and science. Sometimes he introduces real people from the period as characters. For, example, while the four youngsters are staying at Mr Crispin's mansion they meet Charles Darwin and James Clerk Maxwell. Who were these people?

The teacher will take pupils to the school's library or to the local library and he or she will allow them half an hour to fill out the following table:

| | Charles Darwin | James Clerk Maxwell |
|-------------------------|----------------|---------------------|
| Place and date of birth | | |
| Field of research | | |

It would be interesting if the pupils instead of just looking up information on the internet could be encouraged to look for it in books about science, specialized dictionaries, encyclopaedias, etc. They can also look up scientific terms in their own detective diaries and glossaries. In any case, it is essential they decide which sources they use are reliable, and why. This would be a good occasion to mention the importance of critical thought today, to help distinguish between true and false information both in news articles, social networks and on the internet...

The activity may be carried out in a joint fashion with the subjects of **Physics and Chemistry**.

When it comes to sharing the data with others, the teacher will evaluate how each pupil has fared during the research work, how well they have used the library and the internet, and what they could improve when undertaking similar future tasks.

11. FROM ARCHIMEDES TO NEWTON

(Self-affirmation skills)

After observing the Roman ship in the display cabinet, Nemo deduces everything that has happened in Mr Crispin's mansion. How is that possible?



In the final explanation about what happened, two stories separated by more than twenty centuries become interwoven:

- According to the legend, in the 3rd century B.C., Archimedes burned the roman ships setting siege to Syracuse by concentrating the heat from the sun onto the ships' sails using mirrors. (https://elpais.com/elpais/2018/09/04/ciencia/1536060341_786926.html).
- Isaac Newton decomposed light for the first time into a rainbow in the 17th century. (<https://www.astromia.com/astromia/newtonluz.htm>).

Now it is the pupils who are the detectives, and the clues can only be found inside the book. What is the historical connection between Archimedes' ships and Newton's prism?

The pupils should work in groups of four. They are allowed only to consult the book and their own detective diaries. Each group will try to convince others about their idea while at the same time attempting to understand the ideas of others and judging which is best. They will have to work quickly, because the first group to find the answer, and to present it in a well-argued fashion, will be the winner.

While looking into police investigation methods, and transversally at the subjects of **Physics and Chemistry**, one might compare Mr Appleby's police approach (analysis of handwriting, chemical residue, fingerprints, drugs...) with modern day methods (DNA tests...). *What would have changed if the investigation had been carried out today?*

12. THE SCIENTIST WHO WAS AHEAD OF HER TIMES

(Empathy, assertive opposition skills)

Pupils will find a handy biography about Marie Curie in the *Appendix*.

The teacher will ask them to read it carefully and to make a timeline featuring the most important events of her life.

They may do this by hand, or using one of the word processor tools mentioned in this article:

<https://www.educaciontrespuntocero.com/recursos/herramientas-crear-lineas-tiempo/36276.html>

The teacher will ask the pupils some questions about the biography: *Which radioactive minerals was she able to isolate? Why did she call one of the "polonium"?*

Who are the zombies that the author speaks about? Do you think this kind of zombie still exists today?

Subsequently, the pupils will converse in the class about the difficulties Marie Curie faced in her times to become a scientist in a man's world.

The excerpt from the novel below, in which Marie recounts the difficulties she encountered in Mr Crispin's mansion because she was a woman, may also be read out to the class:





'I can imagine what you are thinking: Is Marie also taking part in the competition? Why has a woman managed to join the group?' he shrugged his shoulders, with a comical gesture of resignation. 'Mr Crispin is outstanding both for his virtues and his defects. He's not only mad about spiritism, he is also a suffragist. In fact, it is almost the same thing. Have you heard about Lydia Becker?'

'I know who the suffragettes are. They advocate women's right to vote.'

'Exactly. Mr Crispin not only reads their pamphlets and goes to their meetings, he also finances them!' James simulated a shiver. 'So he invited the young women from around the world to take part in the competition. Marie was not only shameless enough to accept the challenge, but it seems that she has handed in one of the best pieces of work. Clifford isn't very happy about it.'
(page 34)

The teacher can either explain to pupils that Lydia Becker was one of the leaders of the British suffragette movement and an amateur scientist, or ask them to look up information about the movement and its leaders for themselves on the internet. The teacher can also move the situation to Spain by talking about Clara Campoamor.

When pupils consider the matter in a large group the ball might start rolling with questions such as: *What would Marie's life have been like in Mr Crispin's mansion if she had been a boy? What would Marie Curie's biography have been like if she had been a man? What do you think would have happened if one of the other researchers in the mansion had been a girl? Why? What differences can you spot compared with today's society? Which aspects have changed? Do you think women have the same access to science as men in all parts of the world?*

To finish, the teacher will copy what Nemo says to Marie when he says goodbye to her onto the blackboard: *"Don't waste your talent. Show the Cliffords and Jameses of the world how good you are." Who do you think the "Cliffords and Jameses of the world" are in the society we live in today?*



5 | FURTHER READING AND MORE INFORMATION

Anaya's *Código Ciencia* collection:

https://www.anayainfantilyjuvenil.com/titulos_coleccion.php?obras_papel=S&obras_digital=S&id_coleccion=13605

Díaz Reguera, Raquel: *Clara Campoamor. El primer voto de la mujer* [Clara Campoamor. Women's First Vote], Colección Egalité, NubeOcho Ediciones, 2019.

Examples of how to make a glossary:

<https://comosehacetodo.com/como-se-hace-un-glosario-para-que-sirve-y-como-empezar/>

<https://es.wikihow.com/hacer-un-glosario>

Experiments for pupils:

<https://espaciociencia.com/experimentos-cientificos-para-secundaria>

<https://www.educaciontrespuntocero.com/recursos/experimentos-de-fisica-y-quimica-para-secundaria-y-bachillerato/16268.html>

<https://es.scribd.com/doc/6941561/100-experimentos-sencillos-de-fisica-y-quimica>

The Sherlock Holmes Museum, in London. A virtual visit of the Museum is available on the website:

<http://www.sherlock-holmes.co.uk>

Website of David Blanco Laserna, the author of *The Missing Detective*:

<https://www.davidblancolaserna.com>

Website of David Peña Toribio (Puño), the illustrator of *The Missing Detective*:

<http://www.kokekoko.com>

Puertas Maroto, Francisca: *El papel de las mujeres en la ciencia y la tecnología* [The Role of Women in Science and Technology], Santillana, 2019.

Sonja Lyubomirsky webpage:

<http://sonjalyubomirsky.com>

Life, work and images of Marie Curie:

<https://canalhistoria.es/perfiles/marie-curie>

<https://elpais.com/especiales/2018/mujeres-de-la-ciencia/marie-curie.html>

<https://hipertextual.com/2018/02/marie-curie-nobel-paul-langevin>

<https://hipertextual.com/2018/04/marie-curie-petites-curie-guerra-mundial>

Video about the origin of Sherlock Holmes:

<https://www.muyhistoria.es/contemporanea/video/el-origen-de-sherlock-holmes>