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KEY TO ICONS

- ♫ SING, PLAY MUSIC, LISTEN, CHANT, BEAT
- ☀️ THINK, WONDER, IMAGINE
- 👀 LOOK, WATCH, OBSERVE
- 🔄 COUNT, NUMBER
- 🗣️ TELL, SHARE, READ ALOUD
- 🔍 FIND, LOOK FOR, EXPLORE, EXAMINE
- 🤔 QUESTION
- 🎳 PLAY GAMES, ROLE PLAY, ACT, GO
- 💥 ACTIVITY, EXERCISE, MOVEMENT
- ✂️ DRAW, MAKE, CUT, POINT, CIRCLE, PASTE, WRITE, SCULPT
- 🏤 BUILD, CONSTRUCT
- 🔍 MAGNIFY, USE A MAGNIFYING GLASS
Science can be fun for everyone! Full Circle Science creates a learning environment where children can enjoy the scientific framework and cover all areas of science while finding and actualizing their own interests, skills, and talents. This book, *Science and Me*, introduces how science relates to individual children’s lives and provides an introduction to science and to other skills used by scientists such as reading, math, observation, data collection, analysis, synthesis, evaluation, reflection, and creativity.

Below are suggestions to help you make the most of this book:

- **Scientists observe the natural world and collaborate:** This book is intended to be examined, discussed, and read collaboratively with children two pages at a time. Collages, pictures, and graphics represent the natural world. In this book, I, Science Jen, am speaking to children directly—that is what you, the instructor, should do.

- **Scientists look for patterns, ask questions, experiment, and repeat experiments:** A glossary of words to learn explains unfamiliar terms, simply (pages 72-77). Certain ideas or words are repeated. This repetition is intended to inspire young people to look for and to recognize quickly key ideas on their own. Bold words are intended to help pre-readers to notice and find patterns of letters (or specific words).

- **Scientists have clearly defined boundaries and evidence-driven methods of data collection:** The blue edges on the top and bottom of a page are intended to remind you that there are boundaries to science. Pages with blue boxes denote special graphic content or places for children to record their own observations.

- **Scientists create and test new methods:** There are eight rainbow-colored top borders (red, orange, yellow, green, aqua, blue, purple, magenta) each of which represents one aspect of the scientific process listed in rainbow-colored text on page 5.

- **Scientists organize, analyze, synthesize, and reflect upon evidence; then they share their results:** In a group or classroom setting, in addition to the instructor reading a two-page spread with children in class, this book should go home with each child on every science day, so that caregivers can read the book with children at home. There is a checklist on pages 78-79 for the purpose of record-keeping.

This personally relevant, real-life approach to education has been effective in providing fun for children, parents, and teachers, during the last ten years, and I am excited to share it with you.

Have fun extending science into your daily activities!

Scientifically yours,

Science Jen
THINK: Science is a way to make sense of the natural world.
WHAT IS SCIENCE?

SCIENCE STARTS WITH NATURE

We all know what nature is because we, as humans, are part of nature!

QUESTION: What do you love most about the natural world? Which things or creatures in nature most excite you?

___________________________________________
___________________________________________

LOOK: Look closely at the collage on page 2. How many pictures of nature can you find?

TELL: Tell a parent, teacher, or friend what you see on page 2. Describe it in as much detail as you can. What do you like best in that picture? Can you explain why?
WHAT IS SCIENCE?

Science is about using your senses (see, hear, touch or feel, smell, and taste) and looking at the natural world closely.

LOOK: Look at the image above. What are all the things you see in the picture?

TELL: What do you see in the picture? TELL which direction is up. TELL which direction is down. Explain how you know.
WHAT IS SCIENCE?

SCIENCE IS . . .

Looking closely at the natural world.

Telling others about what you see, hear, touch, feel, smell, and taste.

Asking questions about the natural world, including about you and your body.

Answering your questions with concrete data from observations and experiments.

Testing whether you get the same data with repeated observations and experiments.

Telling others about what you learned and asking if their evidence and answers are similar.

Learning, then changing your actions if you find evidence that better explains observations.

Discovering how the things in the natural world are connected to one another.

Using what you learn in your own life today and thinking up new questions.

CAN YOU BE A SCIENTIST?
YES, YOU CAN!

Hello! I hope you’re enjoying this book! I am Science Jen, the author, Jen Seron. When I have something to explain, I’ll use a white bubble filled with words, like this. As you turn the pages of this book, look for special Science Is . . . pages with the above sentences and colors (red, orange, gold, green, aqua, blue, purple, magenta).
2 - WHO AM I?
WHO AM I?

WE HUMANS ARE PART OF NATURE AND SCIENCE

To learn about science we need to learn about ourselves!

WHO AM I?

I AM a unique person.
Nobody else is like me.
The group of animals
I belong to
is my species.
My species
is Homo sapiens
or “Wise Human.”

I AM ME!

DRAW:
Draw a picture
of all of you in
the space to
the right.
WHO AM I?

WE ARE BEAUTIFUL!

LOOK: Look at your *face* in the mirror.

DRAW: Make a drawing of your *face* and head in the box on the following page. Your drawing provides more data about you today!

CIRCLE: Put a circle around each of your *properties* below.

**EYE COLOR:**

- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]

**HAIR COLOR:**

- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]

**HAIR TEXTURE:**

- [ ]
- [ ]
- [ ]
- [ ]
- [ ]

**HAIR LENGTH:**

- [ ]
- [ ]
- [ ]
- [ ]
- [ ]

**OTHER:**

**QUESTION:** What other *properties* do you love about yourself?
WHO AM I?
WHO AM I?

ALTHOUGH WE ARE ALL PEOPLE . . .
WHO AM I?

EACH OF US HAS A UNIQUE BODY

I am part of the world, and **my** body is part of **me**! Each of **us** is unique: unlike any other. Both deep inside and on the surface, **we** are unique.

Most of **us** have the same **body** parts: **head**, **neck**, **chest**, **stomach**, **arms**, **legs**.

**READ ALOUD:**
Reading is fun! Let’s **read** together!
Scientists **read** every day!

**INSTRUCTOR READS:**

Do **YOU** have a **body**?
Do **YOU** have a **head**?
Do **YOU** have a **neck**?
Do **YOU** have **arms**?
Do **YOU** have **hands**?
Do **YOU** have **legs**?
Do **YOU** have **feet**?

**YOU READ:**

YES, I **DO** HAVE A **BODY**!
YES, I **DO** HAVE A **HEAD**!
YES, I **DO** HAVE A **NECK**!
YES, I **DO** HAVE **ARMS**!
YES, I **DO** HAVE **HANDS**!
YES, I **DO** HAVE **LEGS**!
YES, I **DO** HAVE **FEET**!

**SING** and **MOVE:**

“Head, Shoulders, Knees, and Toes” song.
WHO AM I?

I EXPLORE, IDENTIFY, AND FIND THAT . . .

LOOK: Look at the people on these two facing pages.

FIND: Point to one of the people on the opposite page.

POINT TO BODY PARTS:

- 5 heads 🎏 Manufactured 🎏
- 6 eyes 🟡 🟠 🟡 🟠 🟡 🟠
- 2 smiles 😊 😊
- 4 arms
- 2 legs

FIND and POINT: Can you find and point to:

- A person wearing a green dress?
- A person with pink hair?
- A person in a wheelchair?
- A person with black eyes? ● ●

TELL: What different eye colors do you see when you look around at the people in the room? What about in your neighborhood?
CONCLUSION OF SCIENCE AND ME

As you have read in this book, Science and Me, science helps us learn about the natural world and about ourselves at all scales of time and space, everyplace. We, like scientists, can look closely at the world, ask questions, collect data, test our ideas, and share our results! Science is a lot of fun!

In order to study things in the natural world, scientists need to know about the environments, places, backgrounds, and contexts of the things they want to study, as well as about themselves.

In this book we learned about ourselves, our families, and the places or environments where we live. Every day you can have fun asking questions, and looking closely at or observing yourself, your family, your neighborhood, and the natural world around you.

Now that you've finished this book, take a walk in your Community!
CONCLUSION

TRANSITION TO *MY SENSES*

To get ready for the next Full Circle Science book, *My Senses* (Level 1 Book II), you can start observing, exploring, and asking questions about your senses!

We know the world through our senses of sight, hearing, touch, smell and taste. Our bodies and minds make sense of the data, so that we are able to think about what is happening around us, and about what we are doing. In the next book *My Senses*, we will focus on our senses of sight, hearing, touch, smell, and taste, and how they help us to know the natural world.

To prepare to learn more about your senses, you can start collecting objects with different colors, sounds, textures, smells, and tastes!

Think about which sense you use the most, and which sense you like to use the most!
animal – any living thing that eats other living things, is larger than one cell, and can move around by itself. Examples of animals include: insect, crab, clam, fish, amphibian, reptile, bird, mammal (including human).

alive – any thing which respires, takes in nutrients, excretes waste products, has its own mechanism for reproduction or division, and dies. Another word that means alive is biotic. For example, a plant is alive although it has a different way of life from a human. The word abiotic means nonliving.

atom – the smallest unit of matter that cannot be divided into more of itself.

background – everything behind some other thing. For example, the background of this black writing is the white paper.

conference – meeting at which people with common interests share their work. For example, at a scientific conference, specialists in a field are able to communicate their work verbally to their peers and the general public.

connectedness – that one or more things depend upon one or more other things in order to exist. As dependence on an other for survival decreases, so does connectedness. For example, the connectedness exhibited by some orchids and their pollinators is so great that if that orchid’s pollinator were to go extinct, so would the orchid; conversely, there is only minimal connectedness between a daisy and any specific pollinator because the daisy has so many possible insect pollinators.

data – replicable, measurable information obtained through use of the scientific framework. Data can be actual physical objects or measurements, taken in a standardized way, of physical objects. Data from many studies provide evidence either to prove or to disprove a specific claim.

datum – a singular piece of data is a datum. For example, a datum I have is a single rock that documents via fossils the fact that rugose corals lived at the same time and place as tabulate corals because fossils of both kinds of now-extinct organisms are present in the same layer of fossilized rock.