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Living with STEM Digital Library

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Living with STEM

Living with STEM Digital Library: Courses

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LIB 1: 01 Science Practice

Science and Society

- Starting Science
- Science and Scientists
- Science and the Weather
- Ideas about the Earth and Sun
- History of Earth Science
- The Nature of Science
- Discoveries in Optics

Using Equipment

- Reading Graduated Cylinders
- Measuring Volume

Scientific Method

- Doing Science
- Planning an Investigation
- Investigating Habitats
- Evaluating Scientific Data
- Conducting a Science Investigation
- Investigating Light
- Science Communication
- Evaluating Scientific Explanations
- Experimental Investigations
- Analyse and Interpret Information
- Communicate Valid Conclusions
- Analyse, Evaluate, and Critique Scientific Explanations

Data and its Uses

- Measuring and Collecting Data
- Exploring Scientific Data
- Collecting and Recording Data
- Analysing Data
- Collect and Record Data
- Organize Information Using Maps

Safety

- Staying Safe
- Safety and Safety Equipment
- Working Safely
- Safety Practice
- Laboratory Safety
- Field Safety

LIB 1: 02 Earth Science

Earth Resources

- Using Water, Soil, and Rocks
- Natural Water Sources
- Freshwater and Saltwater
- Natural Resources
- Natural Materials
- Earth Systems

Water

- Using Water
- Water Droplets
- Water in Motion
- Water Cycle

Soil

- Using Soil
- Origin of Soil
- Analysing Soil
- Soil and Water
- Soil and Plants

Rocks

- Looking at Rocks
- Using Rocks
- Investigating Rocks
- Patterns in the Rocks
- Rock Formation

Fossils

- Fossil Formation
- Fossil Fuels

Weathering

- Changing Landscapes
- Modelling Landscapes
- Landforms
- Erosion
- Deposition
- Natural Forces

Natural Hazards

- Volcanoes and Earthquakes
- Reducing the Impact of Natural Hazards

LIB 1: 03 Weather Systems

Weather and Climate

- Weather Watching
- Recording Weather
- Wind
- Measuring Weather
- Weather and the Water Cycle
- Effects of Sunlight
- Weather Data
- Weather Patterns
- Weather Maps
- Climate
- Reducing Weather Hazards

Seasons

- Patterns of the Seasons
- Weather and Seasons

Understanding the Earth

- Air All Around

LIB 1: 04 Space Science

Observing Space

- Looking at the Sky
- The Sun in the Sky
- The Moon
- The Sun and Stars
- Planets
- Patterns of Stars

Earth and Space

- Pattern of Day and Night
- Day and Night
- Modelling Day and Night
- The Moon and Tides
- How the Sun Affects the Earth
- Sun, Earth, and Moon

LIB 1: 05 Force, Motion, and Energy

Forces

- Making Things Move
- Forces and Motion
- Forces at a Distance
- Gravity
- Effects of Force
- Effect of Force on an Object

Movement and Position

- Describing Position
- Describing Movement
- Near or Far
- Recording Movement
- Tracking Movement
- Comparing Movement

Electricity and Magnetism

- Magnets and Objects
- Magnets
- Using Magnets
- Electric Circuits
- Electromagnets
- Conductors and Insulators
- Electricity in Circuits

Energy

- Sensing Energy
- Sound and Vibration
- Seeing Light
- Light and Objects
- Energy Everywhere
- Objects and Energy
- Exploring Forms of Energy
- Forms of Energy
- Speed, Energy, and Collisions
- Waves
- Heat Transfer
- Uses of Energy
- Light

LIB 1: 06 Matter

States of Matter

- Heating
- Cooling
- Heating and Cooling Water
- Solid or Liquid
- Heating and Cooling
- Solids, Liquids, and Gases
- Heating and Cooling Changes
- Changing Matter
- Volume and State
- Predicting Heating and Cooling Changes
- Classifying Matter
- Physical Properties of Water

Measurement

- Temperature
- Measuring Temperature
- Measuring Size
- Measuring Mass

Material Properties

- Properties of Objects
- Sorting Objects
- Shapes in Nature
- Heavy or Light
- Hot or Cold
- Rough or Smooth
- Stiff or Flexible
- Changing Materials
- Mass
- Floating and Sinking
- Analysing Floating and Sinking
- Magnetic Forces
- Magnetism

Mixtures and Solutions

- Introducing Mixtures
- Mixtures
- Physical Properties of Mixtures and Solutions

LIB 1: 07 Organisms and Environment

Needs of Living Things

- It is Alive
- Living or Non-Living
- Living Together
- Parental Care
- Shelter
- Responding to Change
- Structure and Function of Living Things

Humans and Animals

- Parts of an Animal
- Animal Structures
- Young Animals
- Human Body Systems
- Senses
- Investigating Heart Rate

Plants

- Basic Needs of Plants
- Parts of a Plant
- Young Plants
- Life of a Plant
- Plant Structures
- Plant Reproduction
- Modelling Pollination

Classification

- Sorting Plants
- Sorting Animals
- Animals and Groups

Habitats and Ecosystems

- Severe Weather and Forecasts
- Diversity in Nature
- Exploring Environments
- Ecosystems
- Environmental Change
- Energy from the Sun
- Effect of Changes in Ecosystems

Cycles in Nature

- Animal Life Cycles
- Insect Life Cycles
- Life Cycles
- Comparing Insect Life Cycles
- Comparing Plant Life Cycles
- Life Cycles of Insects
- Carbon Dioxide – Oxygen Cycle

Feeding Relationships

- Food Chains
- Depending on Each Other
- Food Chains and Energy
- Producers, Consumers, and Decomposers
- Food Webs and Energy Flow

Evolution and Inheritance

- Variation in Living Things
- How Animals have Adapted
- How Plants have Adapted
- Adaptation
- Traits
- Adapted to Survive
- Inherited or Learned
- Evidence from Fossils
- Inheritance

LIB 1: 08 Technology and Engineering

Engineering and Design

- Introduction to Engineering
- Ideas from Nature in Design
- Building Blocks
- Bridge Building
- Alternative Energy

Materials and the Environment

- Using and Conserving Natural Resources
- Man-Made Resources
- Use of Natural Resources
- Conservation of Resources
- Renewable Resources
- Non-Renewable Resources
- Conservation
- Sustainability

Communication

- Communicating with Light and Sound
- Sending Information
- Checking Information about Products
- Maps and Patterns
- Labels and Advertisements
- Promotional Materials

LIB 1: 09 English Language

Language

- Learning to Use Uppercase and Lowercase Letters
- Using Common Nouns and Verbs
- Understanding and Using Plural Nouns
- Learning to Use Question Words
- Prepositions
- Learning How to Use Sentences
- Learning to Use Capital Letters
- Identifying End Punctuation
- Learning Phonemes
- Spelling Words
- Understanding the Meanings of Words
- Understanding Words Using Affixes
- Learning About Categories
- Understanding Opposites
- Words and Their Uses

Verbs and Their Meanings

- Writing Uppercase and Lowercase Letters
- Using Different Types of Nouns
- Using Singular and Plural Nouns
- Different Types of Pronouns
- Using Verbs to Show the Past, Present, and Future
- Using Adjectives and Adverbs
- Learning to Use Conjunctions
- Learning to Use Determiners
- Using Prepositions
- Writing Sentences
- Using End Punctuation
- Using Commas
- Using Apostrophes
- Spelling Patterns
- Understanding Spelling
- Finding the Meaning of a Word
- Understanding Affixes, Prefixes, and Suffixes
- Understanding Root Words
- Understanding Compound Words
- Using Glossaries and Dictionaries
- Sorting Words into Categories
- Categories and Words
- Connecting Words and Their Use
- Learning about Levels of Meaning
- Learning Language

Reading

- Answering and Asking Questions About a Text
- Explaining a Text
- Thinking About Connections
- Learning About Unknown Words
- Understanding the Structure of a Book
- Thinking About Authors and Illustrators
- Connecting Pictures and Ideas
- Finding Points and Reasons in a Text
- Things That Are the Same and Different
- Questions About a Text
- Summing Up a Text
- Making Connections
- Understanding Words and Their Meanings
- Understanding Where to Find Information
- Understanding the Purpose of a Text
- Understanding Images in Texts
- Finding Reasons in a Text
- Comparing Texts
- Finding and Using Evidence From a Text
- Summarizing a Text
- Understanding How Things are Connected in a Text
- Understanding the Vocabulary of a Text
- Understanding the Structure of a Text
- Perspectives from Different Texts
- Interpreting and Using Information
- Using Evidence and Reasoning to Support Points
- Comparing and Using More Than One Text

Writing

- Forming an Opinion
- Forming and Expressing an Opinion
- Expressing an Opinion
- Making an Informative Text
- Informing a Reader About a Topic
- Writing Instructions
- Creating a Storyboard
- Writing a Postcard
- Writing About an Event
- Expressing an Opinion About an Event
- Having an Opinion When Comparing Topics
- Writing an Informative Factsheet
- Writing a Speech
- Writing a Recipe
- Storyboarding an Event
- Describing Your Day
- Writing a Description
- Creating a Perspective
- Thinking About Arguments
- Persuading an Audience
- Writing an Informative Text
- Writing an Instruction Manual
- Describing the Events of a Day
- Writing a Diary Entry
- Writing Poetry
- Storyboarding a Narrative

Speaking and Listening

- Discussing Points as a Group
- Presenting an Idea
- Controlling Speech
- Making Decisions as a Group
- Talking About an Opinion
- Group Discussion
- Working as a Group
- Presenting What You Know
- Thinking About Speaking
- Discussing Ideas as a Group
- Summarizing and Prioritizing Knowledge about a Topic
- Speaking to an Audience
- Working Together
- Persuading Your Audience as a Group
- Debating Ideas

LIB 1: 10 Mathematics

Number and Operations: Whole Numbers

- Taking Apart Big Numbers
- Place Value
- Number Lines
- Building Number Lines
- Comparing Whole Numbers

Number and Operations: Fractions

- Fractions on a Number Line
- Representing Fractions
- Unit Fractions
- Making Unit Fractions
- Taking Fractions Apart
- Parts of a Group
- Introducing Equivalent Fractions
- Making Equivalent Fractions
- Equivalent or Not?
- Comparing Fractions

Number and Operations: Calculation

- Odd and Even
- Rules of Addition
- Arrays and Repeated Addition
- Rules of Multiplication
- Multiplying 2 Digit Numbers
- Multiplication Facts
- Representing Multiplication Facts
- Finding the Missing Number
- Relationship Triangles
- Using Relationship Triangles
- Solving Multiplication and Division Problems
- Sharing into Equal Groups
- The Value of Money
- Rounding Money
- Rounding Numbers
- Rounding Measurements
- Estimating Using Rounding

Geometry and Measurement: Shapes

- Faces, Edges, and Vertices
- Quadrilaterals
- Length and Area
- Areas of Composite Shapes
- Parts of Equal Areas

Geometry and Measurement: Problem Solving

- Perimeter of a Polygon
- Liquid Volume
- Determining Liquid Volume
- Weighing Objects
- Volume or Weight?
- Time Calculations

Algebraic Reasoning

- Introducing Equations
- Representing Math Problems
- Multiplication Expressions
- Function Tables

Tables and Charts

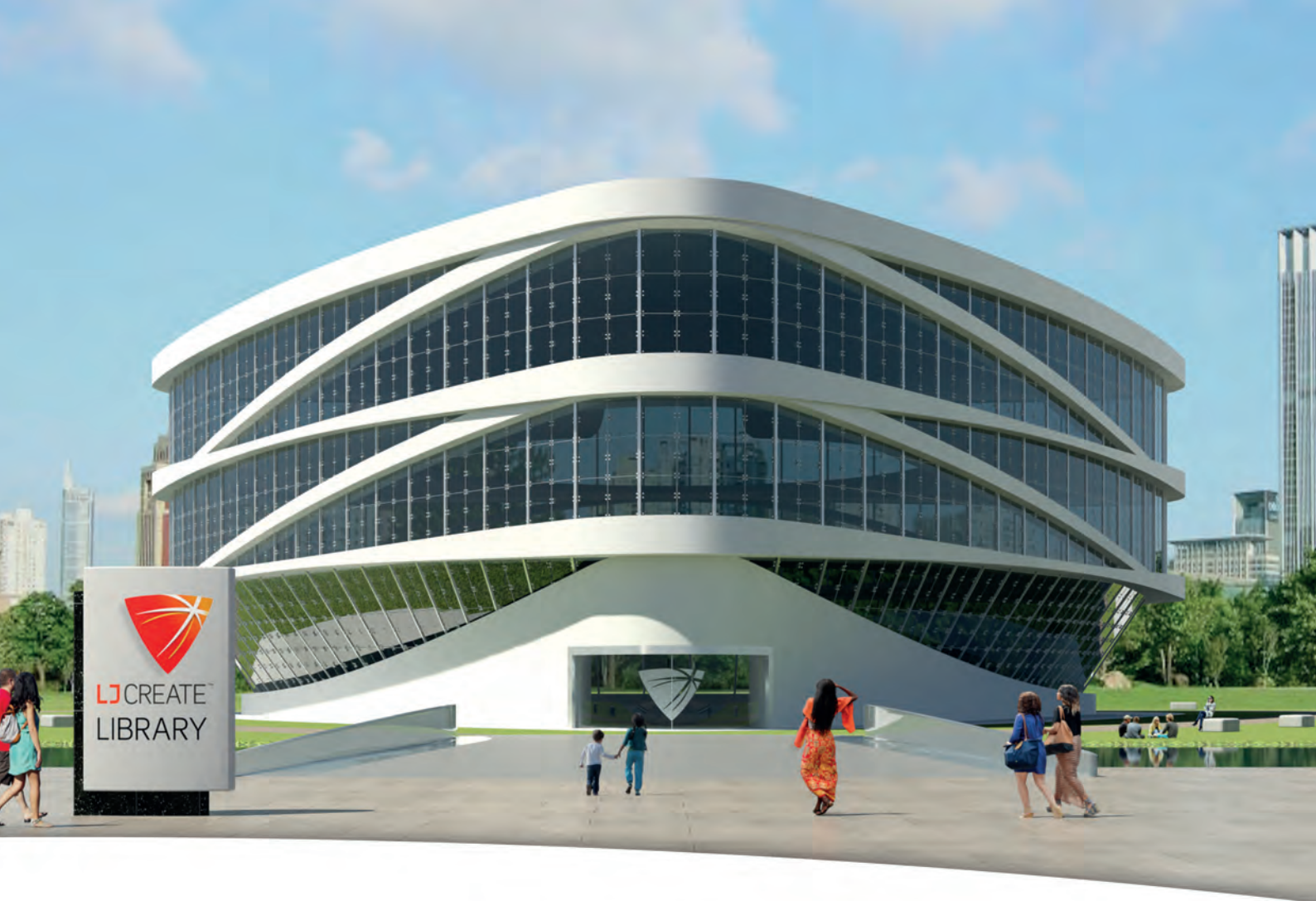
- Reading Tables
- Making Tables
- Reading Bar Graphs
- Making Bar Graphs
- Reading Line Graphs
- Graphic Organizers

Data Analysis

- Measuring, Units, and Rounding
- Summarizing Data
- Bar Graphs and Pictographs

Personal Financial Literacy

- Budgets
- Planned and Unplanned Spending
- Supply and Demand
- Working to a Budget
- Labour and Income
- Savings Plan
- Getting Credit



For more information on our range of learning resources, please contact:

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