

CRITICAL THINKING WORKBOOK



Name: _____

Date: _____

An Introduction to Critical Thinking

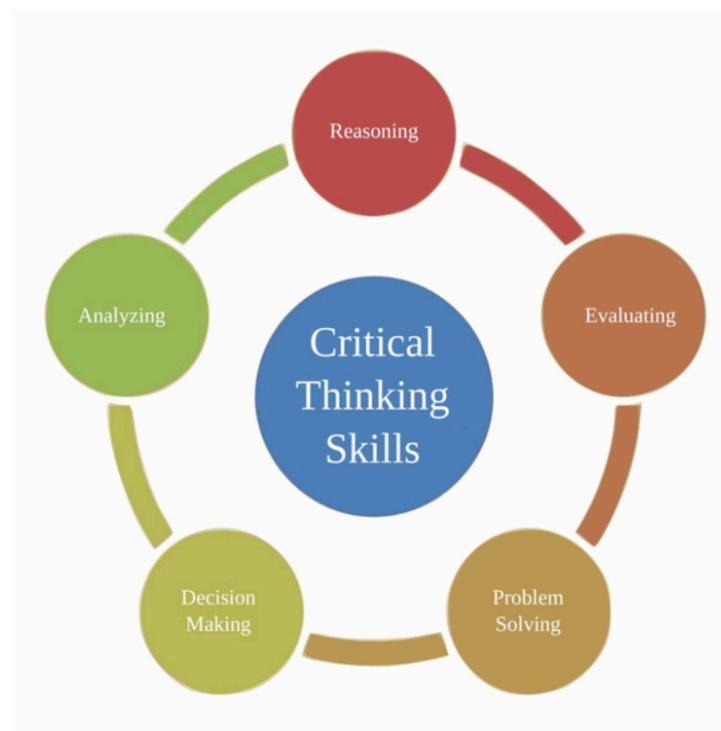
Learning Objective: Students will identify and analyze components of critical thinking by completing an introduction to critical thinking concepts.

What is Critical Thinking?

Critical thinking is the process of carefully and systematically analyzing information to form a judgment. It's about being an active learner rather than a passive recipient of information.

Why Does it Matter?

This skill helps you make better decisions, solve complex problems, and understand the world on a deeper level. Your brain does this by questioning assumptions, evaluating evidence, and considering different perspectives.



This diagram shows key skills for critical thinking.

Self-Assessment: Rate Your Skills (1 = Developing, 5 = Mastered)

Logical Reasoning

Identifying Assumptions

Evaluating Evidence

Metacognitive Reflection: When do you use critical thinking in your daily life? Provide a specific example.

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Becoming a Problem-Solving Pro!

Your Adventure in Problem-Solving!

Ever feel like you're stuck in a puzzle? Life is full of little puzzles, like forgetting your homework or not knowing what game to play. Learning to solve these problems is a superpower called a **life skill**. It helps you become more independent and confident every day!

Friends collaborate to figure out a fun challenge.

The 5-Step Problem-Solving Process

1. Identify

What is the problem?

2. Brainstorm

Think of many solutions.

3. Choose

Pick the best option.

4. Act

Try your solution!

5. Reflect

How did it go?
What did you learn?

Warm-Up: Your Turn to Shine!

Share a simple problem you solved recently (like a tricky math question or finding a lost toy). What was the problem, and how did you feel after solving it?

Practice Makes Perfect: Home Safety Scenarios

Guided Practice: Let's Solve Together

Scenario: You are walking through the kitchen and notice a small puddle of water on the floor near the sink. It's a slip hazard!

1. Identify the Problem: There is water on the floor, which can cause someone to slip and get hurt.

2. Think of Solutions: a) Ignore it, b) Tell an adult, c) Clean it up myself.

3. Evaluate Options: a) Ignoring it is dangerous. b) Telling an adult is a safe choice. c) Cleaning it myself is fast and responsible if I can do it safely.

4. Choose the Best Solution: Clean it up carefully with a paper towel or dish towel.

5. Act & Reflect: I will get a towel, wipe the floor until it's completely dry, and then put the wet towel away. This solved the problem quickly and made the kitchen safe.

Independent Practice: Your Turn!

Scenario 1: What would you do if you smelled gas (like rotten eggs) in your home?

1. Identify the Problem:

2. Think of Solutions:

3. Evaluate Options:

4. Choose the Best Solution:

5. Act & Reflect:

Scenario 2: While making a snack, you accidentally start a small fire in the toaster.

1. Identify the Problem:

2. Think of Solutions:

3. Evaluate Options:

4. Choose the Best Solution:

5. Act & Reflect:

Self-Assessment: Confidence Check

How confident do you feel in your ability to handle a safety situation at home?

School Scenarios: Problem-Solving Practice

Read each scenario. Identify the problem, then brainstorm solutions.

Scenario 1: The Group Project

You are in a group of four for a science project. One of your group members, Sam, isn't doing any work. The project is due in two days and your group's grade depends on everyone's contribution.

The Problem Is...

Brainstorm Solutions:



Thinking about solutions happens in a classroom just like this!

Scenario 2: Forgotten Homework

You get to school and realize your math homework, which is a big part of your grade, is sitting on your kitchen table. Your teacher collects homework at the beginning of class.

The Problem Is...

Partner Power-Up!

Exchange papers with a partner. Read their solutions and add one new idea to one of their lists.

Rank Your Solutions

Review your list of solutions for one of the scenarios. Which one is the best? Think about which is most effective, easiest to do, and has the best possible outcome.

My best solution for **Scenario ___** is:

Navigating Social Situations

Scenarios & Feelings

Scenario 1: Your friend is playing a game with a new student and doesn't ask you to join.

How might this make you feel? Circle emotions from the word bank, then write them below.

Scenario 2: You and a classmate disagree on the rules of a game during recess.

How might this make you feel? Circle emotions from the word bank, then write them below.

Emotion Word Bank

Happy

Sad

Confused

Frustrated

Included

Angry

Curious

Frustrated

Draw a line to match the action (Cause) with its likely result (Effect)

Solution Mapping

CAUSE (Action)

- Ask if you can join the game.
- Ignore your friend and play alone.
- Calmly explain your side and listen to theirs.

EFFECT (Outcome)

You might find and keep playing together.

You get to play and might make a new friend.

You might feel lonely and your friend might be confused.

Get Ready to Role-Play

Choose one of the scenarios from the top of the page to act out with a partner. Think about what you would say and do, using one of the 'Cause' actions as inspiration.

Which scenario will you choose? (1 or 2)



Friendships involve communication and understanding.

Time Management Missions

Mission 1: Morning Mayhem

Alex always feels rushed in the morning. He often forgets his lunch and has to run to catch the bus. Create a simple schedule to help Alex have a smoother morning.

| Time | Activity |
|------|----------|
| | |
| | |
| | |

Mission 2: Chore Chaos

Mia has a big soccer game on Saturday, but she also has to clean her room, do her homework, and walk the dog. Help her plan her Friday afternoon so she can get everything done.

| Time | Activity |
|------|----------|
| | |
| | |
| | |

Break It Down!

A big task can feel overwhelming. Let's practice breaking one down into smaller, manageable steps.

Your Task: Clean Your Bedroom

1.

2.

3.

4.

My Time Goal

What is one area of time management you struggle with? Set one small, achievable goal to work on for the next week.

My Money Plan

Wants vs. Needs

Imagine you have some money for a shopping trip. Look at the items below and sort them into the 'Wants' and 'Needs' columns: *a new video game, a warm winter coat, a big bag of candy, and new shoes for school.*

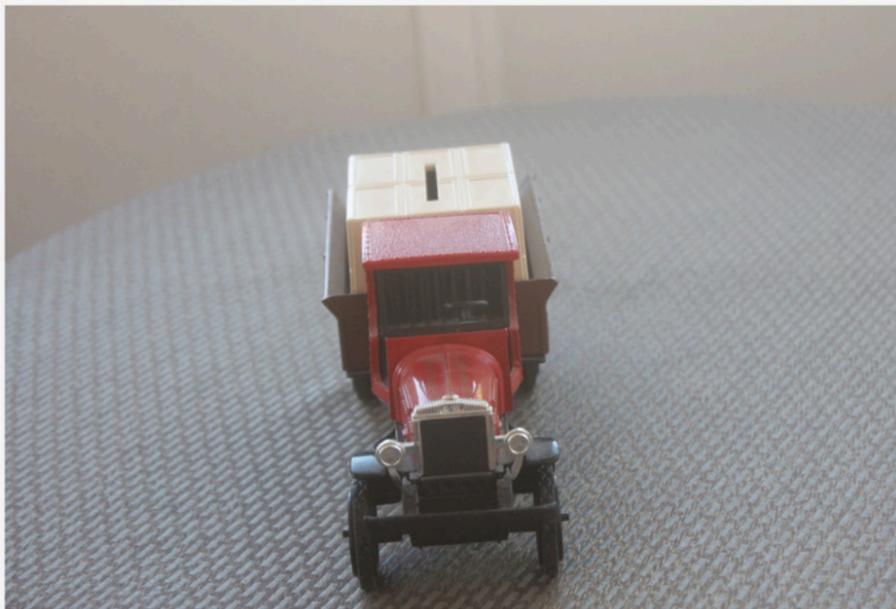
Wants

Needs

Smart Spending Decisions

You have \$15. At the book fair, a new hardcover book you really want costs \$14, but a cool set of pencils and erasers is only \$8. What do you choose to buy and why?

Setting a Savings Goal



A piggy bank helps you save for your goals.

I am saving for a:

It costs:

\$

My plan to reach my goal:

Communication in Action

Practice: Using 'I-Messages'

Rewrite the unclear statements below using the 'I-Message' format:

I feel ___ when ___ because ___.

1. "You never listen to me!"

2. "Stop being so annoying."

Exercise: Active Listening

Read the scenarios and identify the listening behaviors.

Scenario A: Maria is telling Ben about her bad day. As she talks, Ben keeps checking his phone and says "uh-huh" without looking up. When Maria asks him a question, he asks her to repeat it.

What are some examples of poor listening in this scenario?

Scenario B: Sam tells Chloe he's nervous about a presentation. Chloe puts her book down, makes eye contact, and nods. She asks, "It sounds like you're worried about public speaking. What part makes you most nervous?"

What are some examples of good listening in this scenario?

Get Ready to Role-Play!

In our next activity, you will receive a scenario card. Prepare to use your 'I-Message' and active listening skills to act out the situation with a partner.



Children engage in a conversation, demonstrating how communication is a key part of learning and connecting with others.

Smart Self-Care

Read each section below and use what you know about health to make smart choices!

What's the Plan?

You are playing outside and fall, scraping your knee. Let's make a plan!

Scraped Knee

Question:
Is it bleeding a lot?

YES

Tell a trusted adult right away!

NO

Gently wash with soap and water.



Making healthy food choices is a great way to care for your body.

Emergency or Not?

| | Emergency | Not an Emergency |
|--------------------------------|--------------------------|--------------------------|
| A small paper cut | <input type="checkbox"/> | <input type="checkbox"/> |
| Trouble breathing | <input type="checkbox"/> | <input type="checkbox"/> |
| Someone falls and can't get up | <input type="checkbox"/> | <input type="checkbox"/> |

My Self-Care Checklist

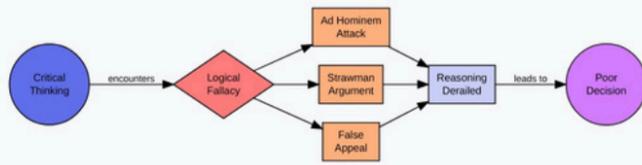
Create your own checklist of healthy habits for each day and each week.

Daily Habits

Weekly Habits

Spot the Flaw: A Guide to Logical Fallacies

Learning Objective: Students will identify logical fallacies in arguments.



Logical fallacies are errors in reasoning that weaken an argument. They might seem persuasive, but they are based on flawed logic. Learning to spot them is a key critical thinking skill.

Ad Hominem

Attacking the person making the argument instead of the argument itself.
Ex: "You can't trust his opinion on movies, he has bad taste in clothes."

Strawman

Misrepresenting someone's argument to make it easier to attack.
Ex: Person A: "We need more recycling." Person B: "So you want to ban all trash?"

False Dichotomy

Presenting only two options as the only possibilities, when in fact more exist.
Ex: "You either support our plan completely, or you are against progress."

Appeal to Authority

Claiming something is true because an authority figure said it, without other evidence.
Ex: "A celebrity endorsed this diet, so it must be effective."

Practice Time: Find the Fallacy

Read each statement, identify the logical fallacy, and explain your reasoning.

1. "Don't listen to her argument on city planning; she failed her driver's test twice."

Fallacy Type: _____

Explanation: _____

2. "We must either cut funding for the arts program or face a massive budget deficit. There are no other options."

Fallacy Type: _____

Explanation: _____

Challenge Yourself

Create your own example for each fallacy type.

Ad Hominem:

Strawman:

False Dichotomy:

Fact vs. Opinion: The Foundation of Analysis

Learning Objective: Students will distinguish between fact and opinion in various texts.

What is a Fact?

- A statement that can be proven to be true or false.
- It is based on verifiable evidence and data.
- It remains the same regardless of who says it.

What is an Opinion?

- A statement that reflects a belief or judgment.
- It cannot be proven true or false.
- It can change from person to person.



Statement Sorting

Read the statements below. Decide if each is a fact or an opinion and write a brief justification for your choice.

The Earth is the third planet from the Sun.

Chocolate ice cream is the best flavor.

Water boils at 100 degrees Celsius at sea level.

That artist's painting is beautiful.

The capital of France is Paris.

Reading books is more enjoyable than watching movies.

Media Literacy in Action

Read the news paragraph. Using two different colored pens, highlight the facts in one color and opinions in another. Then, create a key for your colors.

A recent city council meeting, which ran for an unexpectedly long three hours, concluded with a 5-4 vote to approve the new downtown development project. Supporters believe this project is a brilliant step towards modernizing the city, while opponents worry it will cause unbearable traffic congestion and destroy the area's unique charm.

Color Key

Facts

Opinions

Deductive Reasoning: The Art of Certainty

Learning Objective: Students will analyze problems using deductive reasoning.

What is Deductive Reasoning?

Deductive reasoning starts with a general rule (a premise) and moves to a specific, certain conclusion. If the premises are true, the conclusion **must** be true.

Example: All dogs are mammals. A beagle is a dog. Therefore, a beagle is a mammal.

The Friendship Puzzle

Hobbies

Four friends—Leo, Mia, Noah, and Ava—each have a different favorite hobby (Reading, Painting, Gaming, Hiking) and a different favorite snack (Apples, Cookies, Popcorn, Yogurt). Use the clues to solve the puzzle.

The Clues:

- The friend who likes hiking enjoys apples.
- Noah's favorite snack is popcorn, but he doesn't like painting.
- The person who enjoys gaming does not eat yogurt or apples.
- Ava loves reading.
- Mia does not like hiking.

| Snack | Hobbies | | | |
|---------|---------|----------|--------|--------|
| | Reading | Painting | Gaming | Hiking |
| Apples | | | | |
| Cookies | | | | |
| Popcorn | | | | |
| Yogurt | | | | |
| Leo | | | | |
| Mia | | | | |
| Noah | | | | |
| Ava | | | | |

Truth Tables 101

Truth tables show outcomes for logical statements. Use T (True) and F (False) to complete them.

| | P | Q | P AND Q |
|--|---|---|---------|
| | T | T | |
| | T | F | |
| | F | T | |
| | F | F | |

| | P | Q | P OR Q |
|--|---|---|--------|
| | T | T | |
| | T | F | |
| | F | T | |
| | F | F | |

| | P | NOT P |
|--|---|-------|
| | T | |
| | F | |

Evaluating the Strength of Evidence

Learning Objective: Students will evaluate the strength of arguments by analyzing evidence.

Strong vs. Weak Evidence

Credibility

Is the source trustworthy and unbiased? Look for experts, reputable organizations, and verifiable data.

Relevance

Does the evidence directly support the argument? Avoid information that is off-topic or only loosely connected.

Sufficiency

Is there enough evidence to make a convincing case? A single anecdote is rarely sufficient to prove a broad claim.

Argument Analysis

Topic: Should schools require students to wear uniforms?

Argument 1: "My friend's school has uniforms, and she says everyone hates them. They don't make a difference."

Explain your reasoning:

Argument 2: "An article online said that schools with uniform policies have fewer discipline issues."

Explain your reasoning:

Argument 3: "A 2021 study in the 'Journal of School Safety' found that in a survey of 150 schools, those that implemented a uniform policy saw a 20% decrease in reported bullying incidents over two years."

Explain your reasoning:

Evidence Strengthening Exercise

How could you make Argument 1 or Argument 2 stronger? Suggest specific types of evidence that could be added to improve its credibility, relevance, or sufficiency.

Pattern Recognition Puzzles

Learning Objective: Students will develop pattern recognition skills through analytical puzzles.

Part 1: Sequence Sleuth

Identify the pattern in each sequence and write the next element.

1. 3, 9, 27, 81, ____

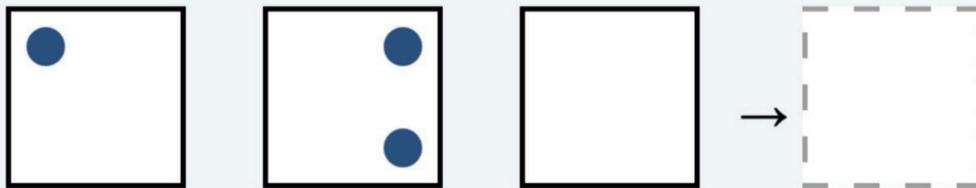
Pattern: _____

2. A, Z, B, Y, C, ____

Pattern: _____

Part 2: Shape Shifters

Draw the next shape in the sequence and explain the visual pattern.



Pattern: _____

Part 3: Become the Puzzle Master

Design your own sequence puzzle and explain the pattern you created.

My Puzzle Sequence:

The Pattern Is:

Learning Objective: Students will apply analogical reasoning to solve problems.

Analogical Reasoning: The Art of Connection

Analogical reasoning is a powerful tool for creative problem-solving. It involves identifying a relationship between one pair of items (A is to B) and then finding another pair that shares the same relationship (C is to D). This skill helps us make connections between different ideas and find innovative solutions.

Sharpen Your Skills

Complete each analogy. Then, describe the relationship between the pairs.

1. UP DOWN :: BIG : ?

Relationship:

2. PUPPY DOG :: KITTEN : ?

Relationship:

3. KEYBOARD: TYPING :: PEN: ?

Relationship:

4. CHAPTER: BOOK :: SCENE: ?

Relationship:

5. SCALES FISH :: FEATHERS: ?

Relationship:

6. HUNGRY: EAT :: TIRED: ?

Relationship:

7. TELESCOPE: STARS :: MICROSCOPE: ?

Relationship:

8. ARCHITECT: BLUEPRINT :: COMPOSER: ?

Relationship:

Real-World Application

Many historical innovations were inspired by analogies. Describe one such innovation. How did analogical reasoning help the inventor solve a problem? (Hint: Think about airplanes/birds or Velcro/burrs).

Inductive Reasoning: The Art of the Educated

Learning Objective: Students will practise reasoning through scenario analysis.

What is Inductive Reasoning?

Inductive reasoning is a method of drawing conclusions by going from the specific to the general. It's based on observing patterns and making educated guesses.

Example:

Observation: Every swan I have ever seen is white.

Conclusion: Therefore, all swans are probably white.

Based on the evidence, what is your initial hypothesis about who took the mascot and why?

Mystery Scenario:

The Case of the Missing Mascot

The school's beloved eagle mascot, "Victory," has vanished from its display case the morning of the big game. Review the evidence below.

The Evidence:

- A muddy footprint was found near the case—smaller than a man's size 9.
- The lock was picked, not broken.
- A note left behind reads: "I have feathers but cannot fly. I am a symbol of a rival high."
- Hallway security footage was corrupted from 2:00–3:00 AM.

How Strong is the Conclusion?

Inductive conclusions are about probability, not certainty. Based on the evidence, rate the probability of the following conclusions.

1. The thief is from the rival school, the "Falcons."

Unlikely Possible Very Likely

2. The thief is an expert lock-picker.

Unlikely Possible Very Likely

3. The thief acted alone.

Unlikely Possible Very Likely

Explain your rating for **Conclusion 1**. What evidence supports or refutes it?

CRITICAL THINKING WORKBOOK

Build essential critical thinking skills with this engaging and interactive workbook.

- ✓ Understand and apply key concepts for effective reasoning**
- ✓ Explore practical strategies for sharpening your analytical skills**
- ✓ Solve a variety of thought-provoking exercises and real-life scenarios**

Develop your ability to think logically, evaluate information, and tackle challenges with confidence.