

Game Theory for Elementary School

BRAVE games, including JAMs, are a Game Theory application called “repeated games” that explore the role trust plays in conflict and cooperation.

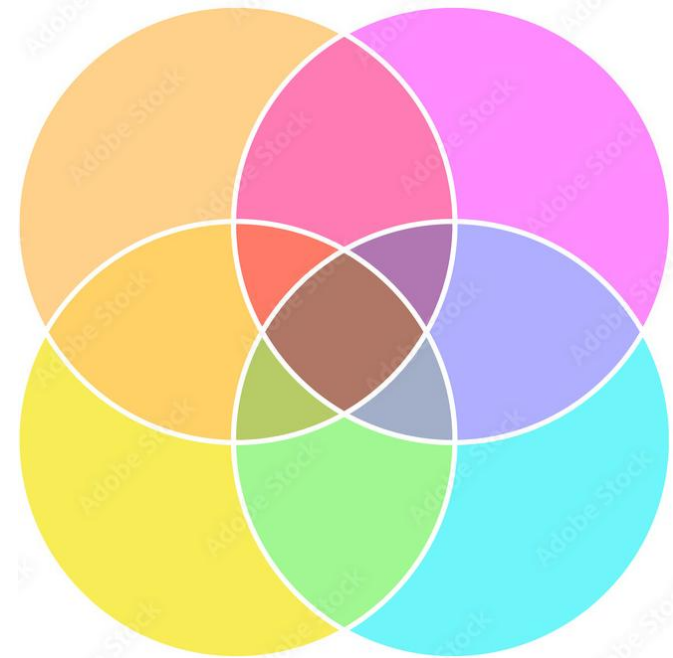
JAMs use human connection to spark skilled reading so players can layer viewpoints, detect bias, diagnose and transform working dilemmas. Groups of 4 can use these 30-minute activities as prequels or sequels to BRAVE board game learning, or as stand-alone fun.

Each booklet in this series presents a unique schema designed to help students frame and organize content. Explore one schema, or try them all:

Game Theory
context
perspective
change
conflict
rights
cooperation
connection
trust
creativity

Taken together, tools needed to navigate any social studies class with discerning minds.

Context



For parents & teachers: Welcome!

BRAVE games, including JAMs, are consistent with Science of Reading instructional guidelines. Tightly-scoped, this inquiry-led method puts knowledge in the foreground to cut across a range of K4-5 standards, meeting all learners where they are to get everyone in the game!

We take learning seriously. And for fun.

JAMs break from typical programming insofar as they're consistent with cognitive science. First, human connection sparks intrinsic motivation, incentivizing skilled reading. The beauty of this method is that players *want* to grapple with embedded vocabulary, engage in healthy discussion, and solve group problems. It's fun. This means students embrace the thrill of collaborating, reasoning with facts, sequencing, and testing truths.

Writing extensions provide explicit instructions to support students as they process, integrate, and store new knowledge. This last step is key because, according to Cognitive Load Theory, it effectively clears one's working memory, laying a foundation of knowledge to excel in equivalent classes at higher grades.

Messy? R&D revealed students thrive with this inquiry-led approach because it's intriguing. At that rate, they're positioned to soar beyond our wildest dreams.

VOCABULARY

background social, historical, and other antecedents or causes of an event or condition

bias tendency, trend, inclination, feeling, or opinion, especially one that is preconceived or unreasoned

cause person or thing that acts, happens, or exists as result of thing that happened; producer of an effect

circumstance detail, part, or attribute, with respect to time, place, manner, agent, etc., that accompanies, determines, or modifies a fact or event

context the set of circumstances or facts that surround a particular event, situation

effect something that is produced by an agency or cause; result; consequence:

foreground portion of a scene nearest to the viewer

heresy belief or theory strongly at variance with established beliefs, customs (often religious customs)

idiom a phrase or expression that has a figurative meaning that cannot be understood by interpreting the individual words literally

inquiry seeking or requesting truth or information

4. SUMMARY ⊕

Context provides facts needed to make sense of any situation. This includes everything from vocabulary and background stories to footnotes, photos and artwork. The 5 Strands of Social Studies are a helpful guide. Also, taking multiple viewpoints into consideration helps explore how different people respond differently to the same questions, adding further context. If, on the other hand, we only rely on our gut response to reality, our understanding is limited to our own or others bias.

Three strategies for limiting bias include looking deeply, active listening, and healthy dialogue. Another strategy, a literary strategy, that helps us explore context within a reading is called “reading between the lines.” This includes understanding idioms, phrases that simply can’t be read literally but instead demand context.

Just remember, the goal of gathering more information is never to change your position but to build more context. If so, you’re likely to develop skills needed to bring a growing body of details into focus without losing the big or little picture. Think of it like a landscape painting: would you draw a mountain range without drawing a sky above it? If so, you can’t capture the sun’s setting rays as they filter through the canyon walls. *Context is everything!*

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VOCABULARY ✨

What are you waiting for?! Dig in!

Context is
everything.
Literally.

1. BUILDING CONTEXT

Context refers to the backstory, answers to questions such as: WHO? WHERE? WHEN? WHAT? We can create & organize questions to gather facts according to the 5 Strands of Social Studies:

- a) **geography** study of differentiation of the earth, regarding character, arrangement & interrelations
- b) **culture** shared beliefs, behaviors, or social environment that connects a group of people
- c) **history** continuous, systematic narrative of past events relating to a people, period, nation
- d) **government** form or system of rule by which a community, nation, nation-state rules itself & its people
- e) **economics** study of financial mechanisms in place to exchange goods and services

LOOK, LISTEN, DIALOGUE

GUIDING QUESTIONS CLASSROOM DISCUSSION

1. **RE-TELL** List three strategies for building context when easy answers are hard to find.
2. **REVIEW** If looking and listening isn't enough to tease meaning from situation, you may have to search more deeply, especially when in conversation or in a reading passage. For example, an **IDIOM**, *a phrase that conveys a figurative meaning that's difficult or impossible to understand based solely on a literal interpretation. Consider the meaning:*
 - a) Don't judge a book by its cover
 - b) Still waters run deep
 - c) You never know a man until you walk a mile in his shoes
3. **REASON** What do these idioms have in common?

3. LOOK, LISTEN, DIALOGUE

Context stems from the details that make up the background and the foreground. Meaning, a quick glance might not offer enough information to gauge a situation. Instead, let's create a system based on three strategies to layer context:

a) **Look deeply.** Context provides a chance to gain deeper insight into any situation. For example, in this drawing, what do you see? Do you see an old woman with a large nose and chin, thin lips, and bundled in a white hood? OR, do you see a young woman wearing a fancy hat with a long neck wrapped in a delicate necklace as she looks over right shoulder? Without context, we can't say the image is one or the other.



b) **Active listening.** When listening, are you *really* listening, or are you waiting for your turn to talk? Are you trying to understand the meaning behind the speaker's words? Are you listening for tone & tenor?

c) **Healthy dialogue.** Asking and answering questions is a great way to clarify misunderstandings, to learn about others' intentions, and to generally build human connections that support continued learning.

BUILDING CONTEXT

GUIDING QUESTIONS CLASSROOM DISCUSSION

1. **RE-TELL** What are the 5 strands of social studies? How do the strands help us keep our questions organized?
2. **REVIEW** Close your eyes. Open your hand. Use your fingers to list the 5 strands of social studies. Do you have a favorite?
3. **REASON** Look at your hand; the fingers are separate, yet they're connected as one. At that rate, would you infer the 5 strands of social studies are likewise connected, or are they separate? Explain

2. SEPARATING FACT FROM FICTION



Context is the backstory. It includes answers to questions such as WHO? WHAT? WHEN? WHERE? Answers to these questions provide basic facts, and therefore context. We gather context from many places, including textbooks, teachers, newspapers, podcasts, blogs, family and friends.

The question is, context depends on who is asking the question, and why. Context also depends on who is answering the question. Why? Because everyone is biased, or has **bias**, as defined by a tendency, trend, inclination, feeling or opinion. Plus, bias is influenced by one's emotional response. Of course, this is perfectly normal because humans are emotional beings, plus, we can't control what emotions rise. In some cases, bias keeps us safe—think *stranger danger*. Nevertheless, we must also explore the source of our emotions to understand what we're feeling, and why. After all, understanding the source of our emotions provides context, too.

On the other hand, if we refuse to dig deep, ask questions, build context and test truths, bias is likely to seep into the narrative and pass for the truth without most people noticing. This explains why scientists and researchers consistently double-check their methods and models to ensure experiments are pure, or objective.

SEPARATING FACTS FROM FICTION

GUIDING QUESTIONS CLASSROOM DISCUSSION

1. **RE-TELL** What is bias? Is it normal to have bias? Is bias good or bad? (Trick question 😊)
2. **REVIEW** At what point is bias healthy and at what point is bias dangerous?
3. **REASON** Infer what skills are needed to recognize and identify emotions as being connected yet separate from facts. In other words, a little is good because...? And too much is dangerous because...?