

Beyond the Mission

Enhancing the *Minds Missions* Learning Experience



Mind Mission lessons afford students opportunities to work on the Four C's: Collaboration, Creative and Critical Thinking, and Communication.

Mind Missions create opportunities for connections across content areas. The following are tips to help you make the most out of the experiences for students in your classroom.

Thinking Process

Consider using a problem-solving cycle like the one below to take students through all the steps of solving a challenge. Teach students the cycle.

Problem-Solving/Engineering Cycle



To see the Problem-Solving Cycle used in a *Mind Missions* lesson, watch Jessica Malloy's lesson located on the Elementary Curriculum Wiki at elementary.wiki.pisd.edu.

- **GOAL** = What is the mission/challenge?
- **ASK** – How will you solve the mission/challenge?
- **IMAGINE** – Think about how you might solve the challenge with the available materials?
- **PLAN** – As a team plan how you would solve the challenge without touching the materials?
- **CREATE** – As a team, create your design; solve the challenge.
- **IMPROVE** – This is a part of the reflection process. What worked? What didn't? What would you change in the future? If time permits, give student teams time to make improvements and retest their designs.

Questioning

Ask probing questions to get students to think about the nonfiction story and the mission itself. Have students think about the story from different perspectives i.e. How do you think the British felt when the colonists wanted to separate from England? Why would they feel that way? Can you think about a time when a smaller group wanted to separate from a larger group?

Have students Repeat, Rephrase, and Add On to their ideas to check for understanding and differentiate for different learners.

Repeat - Johnny, would you repeat what Sally just said? (For a student who might be struggling)

Rephrase – Johnny, can you rephrase what Sally said? (For a student who is on level)

Add On – Johnny, can you add or elaborate on to Sally's comment? (For an advanced learner)

S.C.A.M.P.E.R Acronym for: Substitute/Combine/Adapt/Magnify/Minify/Put to other uses/Eliminate/Reverse or Rearrange
SCAMPER is a strategy to help organize divergent thinking. It helps to accelerate the brainstorming of new ideas and promote looking at old thoughts in new ways. Use SCAMPER to design higher level questions e.g. Substitute: What would happen if you substituted _____ for _____. How would it change things? Eliminate: What if you eliminated _____ from the story, what might have happened?

Mind Missions Quick Tips

Getting Started



Mind Missions are learning experiences in which students work in teams to solve challenges based on social studies content. The *Mind Mission* lessons are aligned to the grade level social studies and language arts TEKS. A list of grade level TEKS aligned to the lessons are available on the [IC Planner](#) under the Social Studies Resources tab.

Managerial Tips

Before the Lesson:

- Consider ordering the materials in bulk campus-wide to save money on the cost. (see the *Mind Missions* “**Grade Level Materials List**” located on the IC Planner under the Social Studies Resources tab)
- Prepare the team bags.
- Print and cut the mission/score cards and put in each team bag. (Plastic bags make great mission bags. (Students can see the material inside and plan without touching them.)
- Print and cut the [Responsibility Cards](#) and laminate to use again.
- Decide how you are going to present the story. Have student groups read it? Read it out loud? Give each student a copy? Show it on a projection device? Change it up each time!
- Read the teacher background information located at end of the lesson before teaching it to help understand the content in more depth.
- Decide how student teams are going to work on the challenge. (plan and design together, plan individually and then design together, etc)
- Decide which reflection questions you are going to use and how you are going to use them (individual, group, roll a die, Think, Pair-Share, etc.)



For more information on *Mind Missions*, watch the *Mind Missions* training videos located on the Elementary Curriculum Wiki at the following address: elementary.wiki.pisd.edu

***Mind Missions* Instructional Tips**

There are four components to a *Mind Missions* lesson: Team Building, Brainstorming, The Mission, and Reflection

Team Building – The core of *Mind Mission* lessons are teams working together to solve challenges. Through team building, students learn to collaborate, create, and reflect as a team. The *Mind Missions* book also has team building activities separate from the *Mind Mission* lessons. Find time to do some of these activities before starting the lessons to model team work expectations and build a strong foundation for future team building experiences. The more students practice teamwork, the better they are at working together.

Brainstorming - Each lesson has a brainstorming component that connects prior learning to new learning. Brainstorming helps to get student brains warmed up. Spend ample time with students on the brainstorming process. Help them to understand the difference between common and creative ideas. Have them work on fluency on their own and as a team. The more students brainstorm, the better they become. Just like with team building, there are additional brainstorming activities in the *Mind Missions* book separate from the lessons. Find time to work with students on these as well.

The Mission - At the heart of the *Mind Missions* lesson is a creative problem solving challenge/mission that student teams are asked to think deeply about and solve. Each lesson contains a challenge based on social studies content. Students read a nonfiction story in teams or as a class, and then solve the challenge/mission related to the content of the story. Most lessons have materials that student teams use to solve the mission/challenge. To aid in think time, allow students time to look at the materials, think about how to use them to solve the challenge, and plan without touching them. This may be accomplished by first planning on paper individually, and then sharing with the team or it can be done by planning and solving the challenge together.

Reflection - Reflective questions help solidify the learning. Students need metacognition time. That is, they need time to “think about their thinking.” This is the time to ingrain the learning in the brain. This can be accomplished in whole group, partners, or small groups. Not all of the questions on the reflection page need to be asked. Choose questions that make students think and reflect deeply.

KUDoS – (Know Understand and Do based on Standards) Remember to keep the 'TEKS' and 'Learning Target(s)' in mind while teaching the lesson.

Cross-Curricular Connections - Find ways to connect what students are learning in all content areas to the *Mind Missions* lesson.

Team Score Card - The score card allows students to know before they start what they need to do to accomplish the challenge successfully. It is important to go over the score card with students so they know what they are being held accountable for.

Responsibility Cards - Having each team member responsible for a specific part of the challenge holds each student accountable for their learning. Using the [Responsibility Cards](#) on the IC Planner under Social Studies resources helps to accomplish this goal. Students should have an opportunity to experience each role as they complete different challenges.

Criteria Card - Using the team [Criteria Card](#) also supports team accountability. Use these cards as you monitor teams to see how they are solving their challenge. If students know they are being held accountable for working as a team, they will work harder to collaborate with their teammates. These cards allow for flexibility of scoring. Changing the variables on the Criteria Card (also located on the IC Planner) energizes students with a new challenge. For example, sometimes give students extra points for using all the materials in their design, while other times have them use as few materials as possible.

Mind Mission Videos are available for each lesson for students needing ELL scaffolding or additional background information with the social studies content. Show these videos prior to teaching the lesson to help build academic vocabulary. They are located in the Teaching Tips section for each *Mind Mission* lesson.

As students are collaborating, communicating, and thinking both creatively and critically, remind them of the following, “**If it doesn’t say you can’t, you CAN!**”