

STEM TEAMWORK

AT A GLANCE

Students will brainstorm what teamwork is, and then read an introduction to STEM and the importance of team work. Students will summarize the important points from this handout into one

OBJECTIVES

Students will:

- Understand the purpose and importance of working within teams.
- Learn what STEM means and that STEM teams work together to solve problems.
- Learn their team roles for the *Mission to Mars* activities.

KEY VOCABULARY

STEM, teamwork, brainstorm, acronym

SUGGESTED GRADE

LEVELS: 6—8

ILLINOIS STATE LEARNING GOALS

Middle/Junior High

3: A, B

COMMON CORE STANDARDS

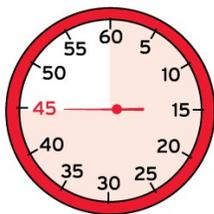
ELA/SS, S and T

Speaking and Listening, 1. a-d

Reading for Information, 2

PACE YOURSELF

45 to 60 MINUTES



MISSION TO MARS



ADVANCE PREPARATION

1. Make a copy of the STEM Teamwork handout for each student.
2. Collect magazines/newspapers for the students to use in their collages. (May ask students to use materials from home.)



MATERIALS

Per Group:

Poster paper
Markers / crayons
Paper
Pencils

Per Student:

Poster paper
Markers or crayons
Paper
Pens / pencils
STEM Teamwork handout
Magazines/newspapers to cut up



WHAT YOU NEED TO KNOW

It is essential that students have practice working in their small groups, meeting deadlines and making group decisions for the *Mission to Mars*. It is important that students understand what STEM means.



WARM UP

1. Write some names of sports teams in your area on the board—Chicago Cubs, St. Louis Cardinals, etc. Do not use the word teams.
2. Ask the students what these have in common (they are teams).
3. Ask students what it means to be a team? Teams work together to achieve a goal. Tell students that we will be investigating what teamwork actually means.



ACTIVITY

1. Place students into the groups that they will be in for their *Mission to Mars*. Ask them to take five minutes to brainstorm three to five words that mean teamwork to them. If you have not pre-

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viously done brainstorming in the class, be sure to explain what the brainstorming process is. As the students brainstorm, they should write these words on paper and then select two or three to report. After five minutes, ask groups to report out and write these words on the board for the whole class to see.

2. Ask each team to take five to 10 minutes to write a one-sentence definition of teamwork. After the time has passed, ask each group to have a person read their definition to the class.
3. Next ask each group to create three rules or guidelines for working in groups. These rules or guidelines should lead to group success. Allow students five to eight minutes for this.
4. Have another person from each group read their rules to the class.
5. Give each group a piece of poster paper. Each person in the group will trace one of their hands on the paper. The group will then write their Guidelines for Teamwork on the poster. The poster should be titled and have group member names on it. Post these around the room.
6. If possible, show students this video www.youtube.com/watch?v=R8twBGoGRqc as an introduction to STEM. Discuss.
7. Hand out the STEM Teamwork handout to each student. Go over the handout to make sure students understand what they are to do. The questions on the handout may be completed in class or sent home as homework. Remind students that the paragraph summary should clearly communicate a summary of the handout's main points and that it should be free of spelling, punctuation and grammar errors.
8. Explain that each student will create a collage of STEM images. Ask students to spell out the acronym STEM with their collage or allow them to be creative in how they approach the collage. You may assign this as homework or complete in class if time permits. Students may cut images from magazines/newspapers or print images to use for the collage or create the entire project on the computer. It may be a good idea to provide some magazines and newspapers to students who may not have these materials at home. Post the collages around the classroom to remind students of STEM careers.



CHECK FOR UNDERSTANDING

The collages should represent the four STEM areas of science, technology, engineering and math.