#### TEACHER PAGE

### TASK CARD PRACTICE

### **Background Information**

The task cards at the Challenger Learning Center are simply step-by-step instruction cards. An activity to simulate the task cards follows on the next few pages, but other ideas for task card practice are listed below.

#### **Objectives**

Upon completion of this activity, students will be able to:

- construct a paper airplane using oral communication skills.
- develop teamwork and problem solving skills.

#### **Instructional Time**

45 minutes

#### Materials

Copy of task cards (located below)
Copy of paper airplane (located below)

### **Examples**

**Paper Origami**—the Japanese art of paper folding, books can be checked out of your local library; books often include pictures of what the finished project looks like for comparison

**Models**—small plastic models can be purchased at the dollar store; as a team, students must follow step-by-step instructions to properly construct the finished product

**Macramé**—using string/twine to make knots that require specific instructions to be completed properly

**Recipes**—another place where proper instructions must be followed; items like bread that must rise, cakes that can fall; look for recipes with chemical reactions

**Treasure Maps**—students must systematically follow instructions to locate clues and eventually find a "prize"

**Mathematical Formulas**—introducing students to simple algebraic formulas and the step-by-step process involved to come up with the correct result

**Simple Jobs**—choose a simple activity that requires little thought i.e., tying a shoe, booting up a computer program, making a sandwich; have one student write out step-by-step instructions, another follow instructions exactly to see if task is completed properly



# Paper Airplane Activity Task Card Practice (Teacher)

1

**OBJECTIVE:** 

To introduce students to the task card concept of following a set of step-by-step instructions. This same concept will be used frequently throughout the students' mission at the Challenger Learning Center.

**PROCEDURES:** 

- 1. Divide students into pairs. In each pair assign one student to be Mission Control (MC) and the other to be Space Station (SS).
- 2. Give the MC student the MC task cards and one copy of the airplane pattern, a pencil and a post-it note.



### Paper Airplane Activity Task Card Practice Continued (Teacher)

2

- 3. Give the SS student the SS task card and one copy of the airplane pattern, a pencil and a post-it note.
- 4. Students should sit back to back and may need access to a desk or flat surface.

**MATERIALS:** 

1 set MC task cards 1 set SS task card

2 paper airplane patterns

2 pencils

2 post-it notes



### Paper Airplane Activity Task Card Practice (Space Station)



- 1. Sit with your back to your partner.
- 2. You should not be able to see your partner (MC) working on the pattern.
- 3. You will be receiving instructions from your MC partner.
- 4. When all instruction has been understood and completed, say "check."
- 5. On a piece of paper record your prediction for how long it will take your team to construct a paper airplane.
- 6. Tell your partner you are ready to begin.



## Paper Airplane Activity Task Card Practice (Mission Control)

1

- 1. Sit with your back to your partner.
- 2. You should not be able to see your partner (MC) working on the pattern.
- 3. You will be giving most of the instructions.
- 4. Your partner will say "check" when the directions have been received and completed.
- 5. On a piece of paper record your prediction for how long it will take your team to construct a paper airplane.
- 6. When your partner is ready to begin, start with task card #2.



## Paper Airplane Activity Task Card Practice Continued (Mission Control)

2

Read the following instructions to your space station partner:

- 1. Lay the pattern with side "A" facing up. "A" should be placed at the 12:00 position. "A" should remain up and in this position for the construction.
- 2. Fold up along line 3. It will serve as a center guide. Open the paper.
- 3. Fold up along lines 1 and 2. Edges A and B should touch line 4.

GO TO THE NEXT TASK CARD



## Paper Airplane Activity Task Card Practice Continued (Mission Control)

3

- 4. Fold up along line 5. Bring edge C in to touch line 3.
- 5. Fold up along line 6. Bring edge D in to touch line 3.
- 6. Fold up along line 8. Bring edge E in to touch line 3.

GO TO THE NEXT TASK CARD



# Paper Airplane Activity Task Card Practice Continued (Mission Control)

4

- 7. Fold up along line 9. Bring edge F in to touch line 3.
- 8. Turn the paper over so two \*'s face up.
- 9. Fold along line 3 so \*'s touch.
- 10. Open the plane's wings so \*'s touch and lines 8 and 9 on the bottom are visible.

Congratulations! You have constructed the plane -- record the time.



# Paper Airplane Activity Task Card Practice Continued (Mission Control)

5

#### DISCUSS THE FOLLOWING WITH YOUR SPACE STATION PARTNER:

- 1. What was the difference between the predicted time and actual time?
- 2. Discuss difficulties/problems and your solutions.
- 3. Suggest how this activity can be improved.
- 4. Clean up your stations and return all supplies.



