

Paper Problems

NCSCOS

Grade Four

COMPETENCY GOAL 4: The learner will build an understanding of technological designs.

Objectives

- 4.01 Assess the invention of tools and techniques to solve problems.
- 4.02 Observe the many tools that are based on designs found in nature.
- 4.03 Determine how people use simple machines to solve problems.
- 4.04 Evaluate the attributes of simple machines that can be manipulated or combined to affect outcomes.
- 4.05 Assess the natural resources necessary to construct machines and tools.

Materials

- several copies of 10 [task cards](#)
- paper
- tape
- scissors
- paper clips
- pencils
- data sheet

Procedure:

Have students work in pairs. At each work station, place several sheets of clean paper, tape, scissors, paper clips and pencils. At center supply station, place task cards and extra paper, pencils, tape, paper clips and scissors.

Tell students that this is a race against time and frustration. The goal is to complete as many of the tasks as possible with solutions that are as creative as possible. Instructions are below:

1. Send ONE team member up to the table to get a task card.
2. Discuss task with team. If the group doesn't like the task, a second one may be drawn and the first returned. However, the second task MUST be completed.
3. Work as quickly as possible to design a solution to the task. An adult must sign off on the solution before moving to the next task.
4. Attempt as many tasks as possible.

When time is up, discuss the most creative solutions with class.

Names _____ Teacher _____

This is a race against time and frustration. Your only tools are paper, scissors, tape and paper clips.

Here's how it goes...

1. Send a team member up to the table to get a task card.
2. Discuss the task in your group. If your group doesn't like the task, you may return it to the box and draw another. The second task you choose **MUST** be completed.
3. After discussing the task, send another team member to the supply task to get more materials if necessary.
4. Work as quickly as possible to design a solution to the task. When finished, call for an adult to come and look at your solution. You may not start another task until an adult signs off on the previous one.

SIGN OFF

1)	6)
2)	7)
3)	8)
4)	9)
5)	10)

5. When ready to tackle another task, place your solution to the previous task aside so that you have room to work. Repeat the process as many times as possible.
6. How many tasks were you able to tackle? _____
7. What was your most creative solution?

