

Team Copy

Hands-On Spontaneous Problem: Crawl Through!

- (1) You may turn over your Team Copy.
- (2) You have 8 minutes to solve the problem. The judge will warn you when 2 minutes and when 1 minute remains. You are allowed to ask the judge questions and talk at any time; however, time will continue.
- (3) There is one sheet of paper and a pair of scissors to use to solve the problem. You are not allowed to damage anything marked with a yellow label.
- (4) **Your problem is to cut a hole in the paper and crawl through the hole.**
- (5) **The hole must be surrounded by contiguous paper, there cannot be any gaps in the paper surrounding the hole.**
- (6) **If the paper tears apart as you attempt to crawl through it, the judge will give you credit if they determined that the hole was large enough to crawl through at the start of your attempt.**
- (7) Competition is over when you ask to be scored or when time ends.
- (8) You will be scored as follows:
 - a. You will receive 10 points for cutting a hole in the paper
 - b. You will receive 50 points if you successfully crawl through the hole
 - c. You will receive 20 bonus points if the paper is still contiguous (not torn apart) after you crawl through
 - d. You will receive 1 to 15 points for the creativity of your solution.

Judge's Copy

Hands-On Spontaneous Problem: Crawl Through!

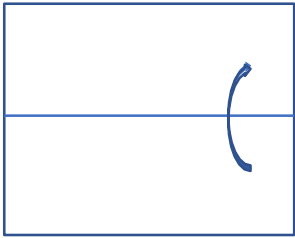
A. Arrange the team members sitting at a table so that each has space to work. This problem will be solved individually.

B. Judge reads to competitors:

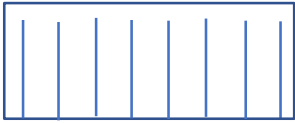
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- (9) I repeat, (read the bold highlighted text again).

C. For Judge only:

1. This is an example problem to be done individually by all team members. It teaches creative use of materials. It is considered a drill.
2. Place a single sheet of paper and a pair of scissors in front of each team member and two copies of the Team Copy face down in full view of all team members before you read the problem to them. They may refer to them during the competition. They may not turn over the Team Copies until you start to read the problem to them.
3. Mark the scissors with a piece of yellow tape.
4. The scissors may be used to cut the hole, but otherwise are not allowed to be used as part of the final solution.
5. Use your best judgement as to whether the hole is large enough for an average person to crawl through before the team members attempt to crawl through for score. If the hole is not large enough to accommodate a person, it will receive zero score for crawling through.
6. If the hole was judged to be large enough to accommodate the team member but the paper tears while they are crawling through such that the edge is no longer contiguous, it will receive the 50 points for crawling through, but zero score for remaining contiguous.
7. When scoring creativity of each team member's solution, consider strategy, experimentation, and how they used the materials.
8. Team members may experiment and practice using the Team Copy papers.
9. See page 3 for an example of a way to cut a hole in a piece of paper large enough to crawl through.



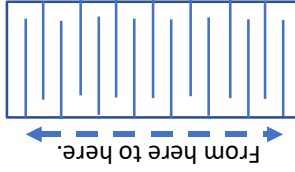
Fold paper in half lengthwise



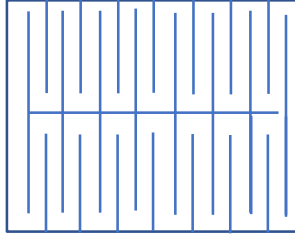
Cut in from the folded edge towards the other side, but do not cut all the way across.



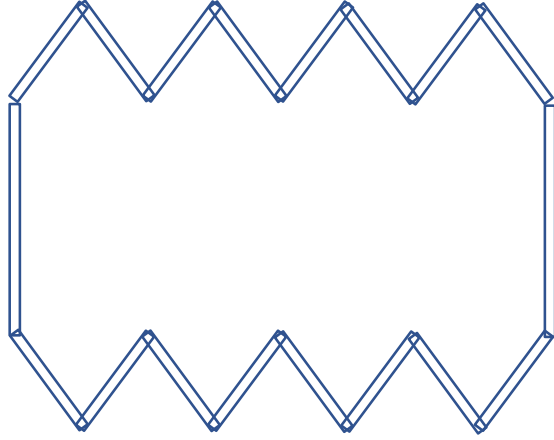
Cut in from the other edge towards the folded edge, but do not cut all the way across. Note, if unfolded at this step you will have a chain!



Carefully cut along the fold between the two end cross cuts being careful not to cut to the edge of the paper.



Carefully unfold lengthwise to reveal one long strip of paper formed from the cuts.



Expand to make a "hole" in the paper that you can crawl through! Note, cutting across the paper anywhere will create one long thin ribbon of paper – bridges anyone?