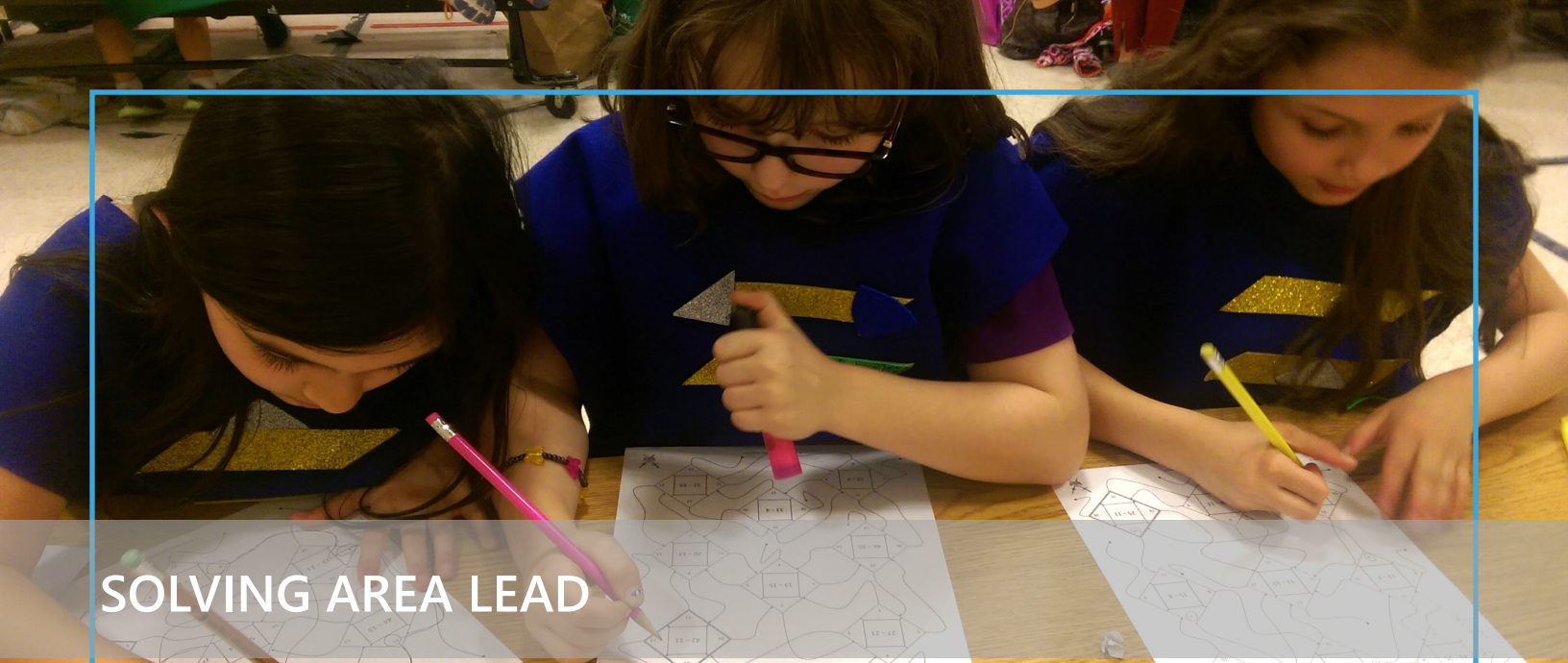


MATH ADVENTURE KIT

Solving Area Lead



SOLVING AREA LEAD

This chapter gives more details for the person that will oversee the puzzle solving area during the event. Being the station lead of the cafeteria (or whatever location students use to solve puzzles, between the theatric stations) is a lot like being a theatric station lead, but there are several key differences.

1. UNDERSTAND THE LARGER STORY HAPPENING AT THE EVENT

Read through the story overview. You want to know what happens at each station, and how the things students receive or learn at each station fits into the larger picture.

The staff that works at this station can play minor parts in the theme. They don't have any particular roles or lines to memorize, but kids love it when all the adults stay in character – even the incidental helpers.

As teams solve their puzzles, and head off to find the theatric stations, you can give them thematic warnings. For example, “be careful! I hear there are monsters roaming those halls!!” As they return, you can ask them how it went, with appropriate awe at their cleverness and bravery. High fives are always welcome.

Finally, knowing what puzzles map to what theatric stations will allow you to point traveling teams in the right direction, especially at the start of the evening.

2. UNDERSTAND THE NARRATIVE HAPPENING AT THIS STATION

The puzzle-solving area generally won't have any narrative, unless a roving actor passes through. However, most adventures have a kick-off skit, put on in front of all the teams.

Many adventures also have a wind-up skit, congratulating each finishing team in turn. There usually is not a shared wind-up skit, because teams finish at substantially different times.



SOLVING AREA LEAD

3. VOLUNTEER ROLES

Aside from the station lead, solving area volunteers are a lower priority than actors and other theatric station helpers, because team coaches are the primary helpers. If your event is tight on volunteers, you may have no other staff here. However, it's nice if you do.

SKIT

If you have a kick-off skit, are your actors pulled from other dramatic stations? If so, make sure they know their extra responsibility. Also, help them to be punctual. It can happen that those actors are so busy preparing their own stations, that they forget to come to the kick-off. That will delay the entire event.

MATH MENTORS

Once the event gets underway, the solving area lead can double as a math mentor. For bigger events, you may want to recruit some additional math mentors. This is an attractive volunteer position for parents/teens who are particularly fond of math or enjoy teaching.

Mentors can float between the teams, offering help. Because the event is not competitive, feel free to help any team that is falling behind, or otherwise in distress. If help with their math isn't enough, offer to move a team to an easier puzzle level entirely. There should be extra puzzles set aside for this purpose.

Math mentors should watch the training videos for the puzzles a few days in advance. There is also a cheat sheet of all the puzzle answers, which mentors can carry around.

PARENTS AS MENTORS

If you don't have math mentors, parent coaches can play the role by peeking at the solved puzzles. Each puzzle cover sheet has a QR code, which links to the solved version.

Because this event is not competitive, don't worry if parents are helping their teams excessively. It's up to them to find the right balance, so everyone has as much fun as possible.

WIND-UP

If you have a wind-up activity, you'll usually need one actor who isn't borrowed from another station. That is because the other stations will still be in full swing when the first finishing teams are ready for their wind-up. In addition to that actor, have a 2nd helper, who wrangles the arriving teams, giving each their chance with the actor. Particularly large events may need two actors and two helper wranglers, working in parallel, to handle the sudden rush of teams at the end of the event.

Finally, you may want a few designated volunteers for clean-up duty. Much more than the theatric stations, this station can end up cluttered with scratch paper and spilled food. This is a great volunteer job for a parent who otherwise wants to be with their own child during the event.



SOLVING AREA LEAD

4. COMMON EARLY JITTERS

For each team's first puzzle, there are some common mistakes that you should look out for. After the first puzzle and theatric station have been played through, the rest usually go smoothly. Keep an eye out for:

- **Teams that don't work in parallel:** Each puzzle has 4 puzzle pages, meant to be split among 4 students. They are initially stapled together, so a team may not realize they are supposed to detach them, and hand them out. These teams are at risk of falling behind.
- **Teams that don't know where to look for theatric stations:** Hopefully you have some signs, or a hand-out, and you can point them on their way.
- **Teams that return from the theatrics without their 2nd puzzle:** This is very common. The adrenaline from the theatrics often sends kids running back to the cafeteria, and they don't think to grab their outgoing puzzle. Send them back to pick one up.
- **Teams who find the math too challenging:** Sometimes the math skills that children have in a quiet classroom are forgotten in the chaos of a Math Adventure. We recommend keeping a few spare puzzles of each level. Teams that would like to drop down a level can do so without a fuss. Note: a level is $\frac{1}{2}$ of a grade. For example, from 3b down to 3a, or from 3a down to 2b.
- **Teams that are falling behind the pace:** If a team is stuck on the math, and their pride won't let them take a hint, they can fall so far behind that they are in danger of not finishing. Please intervene, and either help them through a page, or in drastic cases, give them the answer. Remember, this is not a competitive event, even if kids or their parents forget that.
- **Imminent ending:** If the event closes in 10 minutes, and a team has just returned from their 3rd station with their last puzzle, they can't possibly finish in time. You should immediately swap their puzzle for a much easier one – K or 1a if possible. Most teams will breathe a sigh of relief. They can finish the event on a happy note, speeding through an easy puzzle for a change.

5. OVERSEEING THE END OF THE EVENT

While the kick-off has all the teams in sync, the end of the event will usually be substantially spread out.

Early finishers may have a lot of adrenaline, and become distracting to other teams still in the hunt. Consider encouraging these teams to simply call it a night, or else go outside and burn off steam on the playground.

Teams that have fallen too far behind are at risk of finding a theatric station shut down when they arrive. We want to avoid this sad outcome happening to any team. Try to catch these in advance, and hurry those teams through their math. In the most dramatic cases, we have dropped teams down multiple grade levels, so that they can coast to victory with first grade puzzles. Rather than feel let down, we see most teams in this situation act relieved. The math may be easy, but it's still fun for them.



SOLVING AREA LEAD

If you were supplied with extra puzzles, you are likely to have several leftover. Offer them to teams as they depart, if it looks like they had so much fun that they crave more math puzzles. A good rule is to give them a puzzle from the next level harder than the one they did in the event. But easier can be fun too.

As teams leave, make sure that they do their share to clean up their work areas. In particular, they should recycle paper and put their own food in the garbage. And if your garbage capacity isn't up to the crowd, teams may even need to take bulky packaging like pizza boxes home with them.

6. MATERIALS CHECKLIST

Each team will need the following items:

- Pencils
- Erasers
- Scratch paper
- Straight edges (such as rulers)
- Scissors

Either arrange for teams to bring their own supplies, or else stock supplies for all teams, and hand them out at the start.

Other supplies the station lead should coordinate include:

- Pencil sharpener
- Cleaning supplies for tables
- Broom for floors
- A microphone, if the facility has a sound system you want to use
- Printouts of puzzle answer cheat sheets, to share with math mentors.

There are also supplies that other roles contribute to this station. Make sure they plan to deliver them at the start of setup before the event, or the solving area lead should gather the materials the day before.

- a) Team check-in list, with seating assignments (from **Registration**)
- b) Table numbers (from **Registration**)
- c) Initial puzzles for each team (from **Printing**)
- d) Extra puzzles, for teams needing replacements or to change levels (from **Printing**)
- e) Opening skit props (from **Purchasing**)
- f) Wrap-up giveaways (from **Purchasing**)

See the specific story script for details on skit props and giveaways.

SOLVING AREA LEAD

7. EVENT MILESTONE CHECKLIST

Following is a recap of the various tasks of the Volunteer recruitment role, and when they need to happen...

Task	Timeline	Completed?
Gather supplies in solving area	4:30	
Introduce yourself to the janitor. You may need their help at the end of the evening.	4:30	
Setup tables and table markers; Post table assignments near each entrance	4:30	
Most teams start to arrive, find their tables (there are always a couple who come earlier)	5:30	
Make sure signs lead from the solving area to each theatric station	5:45	
Opening skit; hand out first puzzles	5:55	
Teams start working on first puzzles	6:00	
Fastest teams finish their first puzzle	6:10	
All teams should have finished at least 1 puzzle	6:30	
All teams should have finished at least 2 puzzles	7:00	
Fastest teams may be approaching finish	7:15	
All teams should have finished at least 3 puzzles	7:30	
Any teams not near done need drastic help	7:45	
Slowest teams should finish their last puzzle, and head to their last theatric station	7:55	
Once you know all teams are done, send a runner to the theatric stations to let them know that no more teams are coming. They can then shut down when the teams already there are done.	8:00	
Shut down wrap-up activity; start cleaning	8:10	
Leave the school	8:30	

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