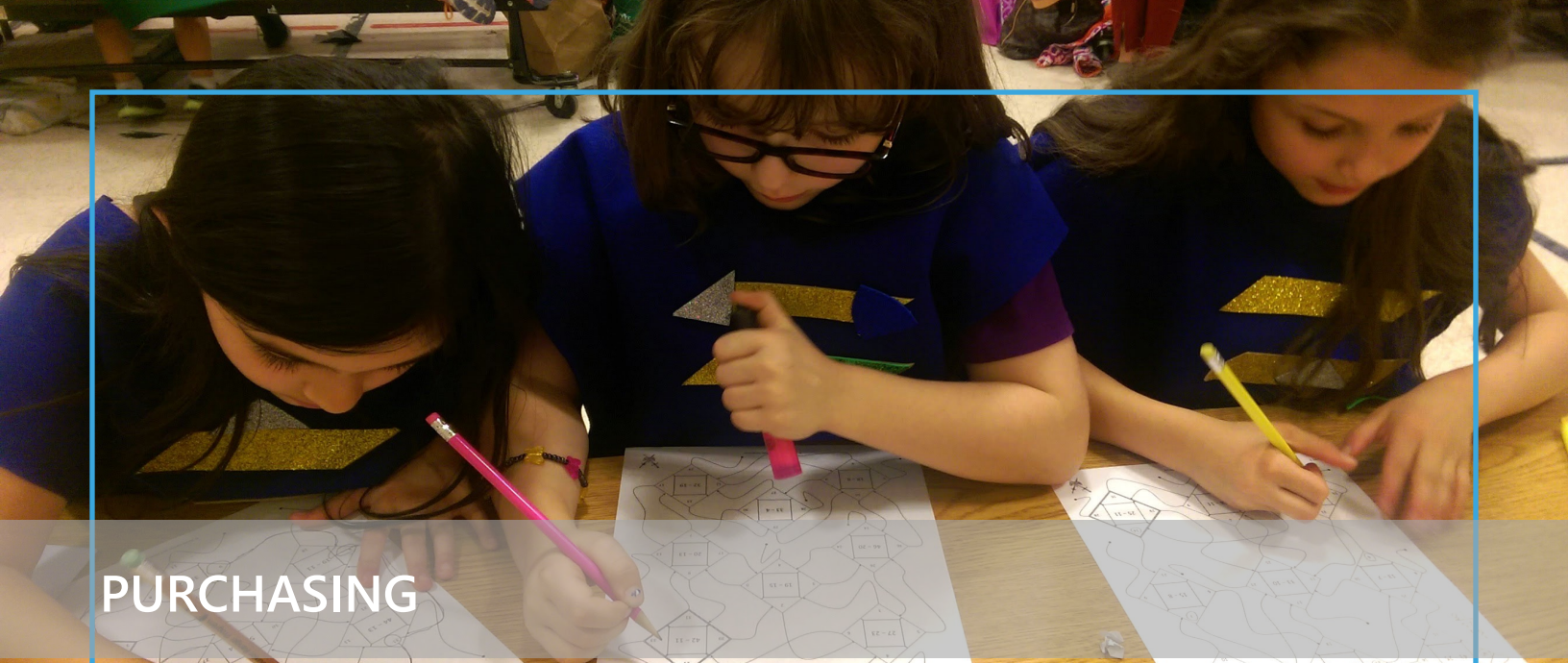


MATH ADVENTURE KIT

Star Base
Alpha

Purchasing



PURCHASING

Hosting a Math Adventure requires buying, finding, or making a number of props, costumes, and the like. Purchasing them is perhaps something you can do from the comfort of your own computer, thanks to Amazon or the like. But there are many opportunities to find or create many of the things you need within your local community.

This chapter explores the different types of things you'll need to acquire. Maybe one person oversees all of it. Or maybe the job is divided up. Don't forget to work with Accounting to track expenses, and to keep an eye on the overall budget.

1. PROPS

Each theatric station will have a modest list of small items that help set the stage to tell the story. This includes the puzzle solving station, where the opening skit and wrap-up activity are usually held. We try to keep the list minimal, and to use things that can likely be found in the community. See the Props list in the online resources. If you have someone in your community with a theater background, it can be tempting to delegate this to them, and let them have fun. They may be tempted to add more props, to create a sense of ambiance. On one hand, this can be fun for the actors, and give them more inspiration. However, it also creates more bulk, and makes setup and cleanup more complicated than it would be otherwise. Our experience when we've run an event multiple times, is that we cut the prop supply list down smaller and smaller, as we realized what was more trouble than benefit. So be judicious.



PURCHASING

2. COSTUMES

Actor roles take on more authenticity when an actor can put on a costume. Not only does the visual tie-in make the character more believable, but actors themselves respond to their own costumes, and breathe more energy into the roles. However, acting in a Math Adventure can be a high-energy undertaking, so it's important not to burden your actors with heavy or hot outfits, or ones that need a lot of upkeep. For example, hats and other accent pieces are relatively easy, whereas wigs tend to degrade quickly if you don't spend money on nice ones.

See if your community has someone with a theater background, or who otherwise loves creating costumes. This is a great job to outsource, as long as you convey budget and mobility needs.

See the Costume list in the online resources for an outline. Some costumes will be marked as particularly essential, whereas others are nice to have. Most costumes are intended to be the sort of thing that volunteers playing actors can find around the house. If not, second hand clothing stores are a wonderful source of inspiration.

3. MATH SUPPLIES

It's usually enough to ask teams to supply their own math supplies. However, pencils break, and kids who think they can share sometimes can't. So it can be nice to have a backup supply available. And if you have the funds, or your community would value the extra convenience, consider ordering bulk supplies to cover everyone.

Most Math Adventures have the same math supply list, but consult the online resources to be sure. That list includes:

- Pencils (with erasers)
- Scissors (at least 2 per team of four students)
- Rulers or other forms of straight edge (at least 2 per team)
- Scratch paper (white, to contrast with colored puzzles)

4. GIVEAWAYS

Part of the successful formula of Math Adventure is the tradition of giving away something at every theatric station, and then again at the wrap-up activity. In some story lines, each station gives away a single item that is part of a larger whole being assembled over the course of the evening. More often, each student receives a small "door prize", that is thematically tied to that station, as a memento.



PURCHASING

In theory, it should be enough to order one of each giveaway for each participating student. But it is much safer to order substantial extras. First, you'll have spares that you can share with unexpected participants, or younger siblings tagging along with their older sibling's team. Second, students lose or break these regularly, and a few parents are bound to come begging for a replacement over the course of the event.

Like the math supplies, these items are most efficiently bought bulk. See the Giveaways list in the online resources for a specific list, including suggestions for where they can be purchased online.

5. PRINTING

Unless your school office, or a generous local corporation, offer their copy machine for free, you will need to order a substantial print job. An event with 100 students will require nearly 1000 pages of printed puzzles. The Printing chapter goes into great detail on how to organize and order the right amount of everything.

Your school district likely has a print department, and hopefully the PTA has an account. This facility likely charges less than half of the typical retail rate. For example, in our home district, a typical rate was 5¢ per page, instead of 12¢. But your community, or even the internet, may have other options worth considering.

6. THANK-YOUS

At most schools, the various theatric stations set up in classrooms. Having access to these rooms often comes down to having the blessing of their teachers, who can be very protective of them.

One way to show those teachers how much you appreciate their cooperation, and to maybe smooth over frustration if furniture doesn't all get put back where it started, is with a small thank you. A little bag of chocolate, and a thank you note, go a long way. Arrange for the station leads to leave these on teachers' desks while they're doing their cleanup at the end of the event.

While you're at it, the janitors and office manager are integral to your success too, so set aside some thank-yous for them as well.



PURCHASING

7. FOOD

Some schools like to combine their Math Adventure with a pizza feed, or similar feast. Other schools like to at least feed their volunteer staff, as a thank you. Neither of these are necessary, or even common. Instead, our favorite tradition is to invite each team to bring their own dinner, since the events usually happen around dinner time, and most schools use their cafeterias as the puzzle solving areas.

WATER

While you may choose not to offer food, bottled water is often a popular giveaway. We traditionally provide bottled water to all our volunteer actors. They have a hard job, with lots of speaking, and we want to keep them at their best.

FUND RAISER

One twist to consider is offering food, or bottled water, as a fundraiser.

8. QUANTITIES

Some kinds of items need to be purchased in quantities based on how many students or teams sign up (with a buffer). Other categories need to be purchased in fixed amounts for a wide attendance range. However, as a small event grows into a medium one, and then into a large one, you will need to budget for double, or even triple sets of each prop.

If you run a Math Adventure year after year, you will be able to predict a rough attendance size, perhaps growing a little each year. But the first year or two, it can really be a shot in the dark. Our guideline to the Registration role is to close registration two weeks prior to the event, so that they can share student/team counts with the Purchasers, who will still have time to shop accordingly.

Each shopping list in the online resources will give guidelines for quantities per student, per team, or per event size.

PURCHASING

9. EVENT MILESTONE CHECKLIST

Finally, to help you manage all the opportunities, and check them off, one by one, we've created this Event Milestones Checklist. Use it to check off each item, and to figure out when each item on the list should be done, and by whom.

Task	Timeline	Completed?
Establish a budget for all expenses	2-3 months before	
Estimate costs for all purchases, based on an educated guess of the event size.	2-3 months before	
Identify items that require early ordering, or a check request, to the PTA or Accountant	6-8 weeks before	
Registration will close, so you'll know student and team counts	2 weeks before	
Shop!	1-2 weeks before	
Package items based on which station they need to be delivered to	1 week before	
Deliver everything to Station leads	Afternoon of event, or ideally 1 night before	
Submit reimbursement requests, if needed, to Accounting	Up to 1 week after	

PURCHASING - SHOPPING LIST

Following is a recap of all of the materials called for by any part of the Secret Agent adventure, so that you can find, make, or buy each of them. Where possible, we also include a link to an example item on Amazon. We make no representation that Amazon prices or quality are best.

COSTUMES:

Item	Worn by	Quantity
Alien ears	Alien traders	1 pair per actor
Alien antennae	Martian critters	1 set per actor
Astronaut cap	Base commander and mentors	2—4
Engine room work clothes	Reactor core actors	1 outfit per actor
Head lamp	Mineral surveyor	1 per room
Work gloves	Mineral surveyor Reactor engineer	2 per room (1 each)
Flamboyant shirt and/or hat	Trade representative	1 per actor

GIVEAWAYS:

Item	Station	Quantity
Glow necklaces	Reactor core	1 per student, with spares
Zots (or other candy)	Space port	1 per student, with spares
M&Ms fun size	Mineral mine	1 per student, with spares
Light-up animal rings	Trading post	1 per student, with spares
Moon pies (various flavors)	Wrap-up	1 per student, with spares

PURCHASING

PROPS :

Item	Station	Quantity
Stackable cups	Reactor core	25 per simultaneous team
Robot grabber claw	Reactor core	5 per simultaneous team
Rolls of toilet paper	Space Port	1 per simultaneous team
Opaque bag or lunch box	Space port	1 per simultaneous team
Light-up wands (4-5 different styles)	Mineral mine	1 of each styles per simultaneous team
Badminton birdie	Trading post	1 per simultaneous team
A variety of other silly/gross items for trade (see script)	Trading post	6-12 different items, each in a container

SUPPLIES:

Item	Station	Quantity
Removable tape	Each station (for signs)	5 rolls
Markers (for annotating signs)	Each station	5
Water (for actors)	Each station	5 cases
Spare pencils	Solving area	A few dozen
Spare rulers	Solving area	A dozen or two
Pencil sharpener	Solving area	1



PURCHASING - PACKING LISTS

During the last week before the event, it is a good idea to assemble all of the materials created or purchased by the various committee members together. Then package them for each station.

INITIAL PUZZLE PACKET ASSEMBLY

The single biggest packing task is to create a stack of initial puzzle packets that can be handed out quickly and efficiently during the event kick-off.

WHERE TO START

First, divide the teams into roughly quarters, and assign each quarter to start on one of the four puzzles :

- Mineral Mine
- Reactor Core
- Trading Post
- Space Port

An easy system is to have all the 1st graders start at one station, all the 2nd graders at another, etc. Hopefully, these can be combined in such a way that each station gets roughly a third of all teams.

TABLE ASSIGNMENTS

Using the title sheet printouts, label each starting puzzle with the team's table number.

Stack all of the packets in order, with table #1 on top.

PUZZLE SOLVING AREA

- Initial puzzle packets, with cover sheets
- Extra puzzles – a couple from each level, above and beyond the number of teams expected
- Extra math supplies (pencils, rulers, etc.)
- Team check-in lists (preferably enlarged to ledger-sized for posting on walls)
- Table numbers
- Masking tape (for hanging signs and attaching table numbers to tables)
- Volunteer list with assigned stations
- Puzzle answer cheat sheets (for mentors)
- Costumes for the opening skit, wrap-up, and math mentors
- Treats (Moon Pies) for wrap-up



PURCHASING - PACKING LISTS

MINERAL MINE

- M&M fun size packs
- Light-up wands
- Costumes for the surveyors and critters
- Outgoing puzzle – Reactor Core
- Team check-in list (+ pencil)
- Hallway signs – to Mineral Mine (+ masking tape, marker)

REACTOR CORE

- Stackable cups
- Robot grabber claws
- Glow necklaces
- Costumes for the engineers
- Outgoing puzzle – Trading Post
- Team check-in list (+ pencil)
- Hallway signs – to Reactor Core (+ masking tape, marker)

TRADING POST

- Badminton birdies
- A variety of odd/silly/gross wares for the aliens to offer to trade
- Storage boxes for the above
- Giveaway rings
- Costumes for human and alien traders
- Outgoing puzzle – Space Port
- Team check-in list (+ pencil)
- Hallway signs – to Trading Post (+ masking tape, marker)

SPACE PORT

- Lunch box or similar opaque box
- Rolls of toilet paper
- Giveaway candy
- Outgoing puzzle – Mineral Mine
- Team check-in list (+ pencil)
- Hallway signs – to this Space Port (+ masking tape, marker)

Make math fun for your school!

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