

MATH ADVENTURE KIT

Star Base Alpha

Script &
Station Details
for the

Trading Post



STATION – TRADING POST

CHARACTERS

Receptionist – Greets teams outside; controls traffic flow

Trade Representative – Guides teams through the challenge

Aliens – Act as traders from another world, who don't speak, but communicate through gestures (described in the **Translation Guide**, printed separately)

Departure – Makes sure exiting teams have everything they need

BACK STORY

Your star base has been visited by another space-faring species. They are friendly, and love to trade. However, they don't speak with words, and their gestures mean different things than our human ones do. So the base staff haven't been able to communicate at all.

Their ship is a trading post, set up as an exotic bazaar. It's not a store like modern supermarkets. Instead, picture an old time apothecary, where all the goods are out of reach, and hidden away in containers. They must be explicitly asked for.

Teams are asked to help the trade representative acquire an advanced miniature rocket design. The trade rep has a picture of it. Somehow, they must figure out how to convey their desire to the aliens. And then they'll need to also figure out what the aliens want in trade.

LOCATION

A school classroom, or an open space that can be divided into display space in the back for goods in the back (perhaps counters), and tables in the front to separate the visiting teams from the aliens and their wares.

A certain amount of chaos is welcome here, as it fits with the story. So even if hosting a larger event in which you would normally run parallel stations, have all the trading posts take place together, to share resources and actors.

The receptionist and departure helper stay in the hallway. They support all teams in the room.

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SCRIPT

Receptionist:	Hello, welcome! Have you come to see what's for sale at the trading post? What's your team name?
Team:	(Name)
Receptionist:	<i>(Confirm team has solved this station's puzzle, and has brought their filled-in answer page)</i> You'll need to talk to the trade representative. She's been trying unsuccessfully to talk with the traders.
Trade Rep:	<i>(Arrives wearing flashy rings on his hand, but doesn't talk about them)</i> Oh am I glad to see you! It's so exciting to meet traders from another planet! But we haven't had much luck communicating with them. We've figured out a dozen or so words. I think if we could learn another 4, we'd have enough to give it another try.
Team:	<i>(show the trade rep their answer, which translates four more alien words).</i>
Trade Rep:	Wonderful! This is just what we need! Let me tell you about our new friends. They don't speak at all, and don't understand anything we try to tell them. They communicate entirely by gestures. For example, here we've learned how to say hello, yes, no, etc.. Look these over... <i>(lay out the translation pages the trader already knows. Add students' page to the list.)</i>
Team:	<i>(study the translations; experiment by gesturing "hello" to the aliens).</i>
Alien:	<i>(gesture "hello" back. Then gesture "trade", because that's what these aliens love to do).</i>
Trade Rep:	The aliens have an advanced miniature rocket that we'd love to trade for. Let me show you a picture. <i>(show team another picture of "the rocket", which looks very much like a badminton birdie)</i> Can you figure out how to ask the aliens, <u>in their own language</u> , if they have one of these rockets?
Team:	<i>(discuss with each other what words might fit. For example: "round". Then make that gesture).</i>
Alien:	<i>(make an "a-ha!" expression, dig through your stores, and produce an incorrect item. For example, eye balls are round! Offer these to the kids)</i>
Team:	Eeeeww! No!!! <i>(discuss again, thinking of another description, to add to "round". Make that gesture.)</i>
Alien:	<i>(make another "a-ha!" expression, dig through your stores, and produce another incorrect item.)</i>
Team:	Ick! Still no!! <i>(discuss again, thinking of a third description. Make that gesture.)</i>
Alien:	<i>(make another "a-ha!" expression, dig through stores one last time, and hold up the correct badminton birdie. Don't give it to the kids, nor let them grab it.)</i>
Team:	Yes!! <i>(reach for it)</i>
Alien:	<i>(pull back. Gesture trade. You don't want to give it away, you want to trade for it!)</i>

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SCRIPT (CONTINUED)

Trade Rep: Oh! They want to trade for it. What do they want?

Alien: *(Make a complicate sequence of gestures that mean “small colorful hand animal”)*

Team: *(tries to decipher the alien gestures)*

Alien: *(repeat, slower and more exaggerated, until team is able to translate the request enough)*

Team: *(noticing that the trade rep has a ring that matches the alien’s description)*
They want your ring!

Trade Rep: Really? I’m happy to trade it!
(take it off, and hand it to alien)

Alien: *(smile happily. Sniff at the ring, or otherwise be weird.*
Hand the badminton birdie to the trade rep—NOT the team)

Trade Rep: Actually, these rings are pretty cool. Do you all want one too?
(reaches into pocket, and pulls out rings for each team member)
(lead team out of trade area)

Departure: You figured it out! You’re very clever!

By the way, a message came from the Commander while you were trading. There’s some sort of emergency with the docking system at the Space Port. Have you had a chance to get that straightened out yet?

Team: *answers yes if their first puzzle was the Space Port. Otherwise, they answer no.*

Departure: *(If no...) Well then, you’ll need this packet.*
(hands them their next puzzle).
Good luck!

(If yes, they’ve already done the Space Port...) Then you’re done!
Go find the Base Commander!

ROOM RESET

Trade Rep: *Give the badminton birdie back to the aliens, to put back in their stores.*
Put another ring on, and put more rings in your pocket.
Take the answer page the last team brought, and recycle it. Bring out the matching page where those gestures are still unknown.

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ALIEN ACTING TIPS

- Pointing:** Students should not be able to point to what they want, if they see it. In the dictionary, pointing means “thank you”. Any time kids do that, wave back, which means “you’re welcome”. Avoid looking where kids are pointing.
- Talking:** Students will try to talk, forgetting the story constraints. Just look at them quizzically. Then maybe gesture “no” or “trade”.
- Show Picture:** Students may grab the picture of the ‘rocket’ from the trade rep, and simply hold it up. You can mimic them by holding up something else non-sensical, like a chair. But if students persist, you may need to focus them by holding up the translation guide.
- Two+ aliens:** It’s fun to have multiple aliens. When students ask for something, the aliens can confer, trying to guess the kids’ meaning. When one expresses “a-ha!” and picks out the wrong item, the other can nod approvingly, sure it will be right.
- Even though the story says the aliens don’t talk, they can make silly noises at each other.
- Dancing:** Actors who want to take this to the next level might try some funny dance moves. They don’t have to mean anything—other than to the other aliens, perhaps. But it’ll keep the kids laughing, and they might even copy you!

INCOMING PUZZLE

Before arriving at this station, each team will solve a math puzzle with story problems and multiple choice. The instructions tell them “We have encountered another space station! And this one has shopping! If only we spoke a common language.”

Their answer will be a page that looks like the last, un-completed translation page from this packet. Specifically, it will show 4 musical aliens, which the students match to HAND, LESS, SOFT, and MORE.

DEPARTURE

As teams leave, they should have 2 things:

- The small glowing ring
- The outgoing puzzle – **Space Port**
- ⊗ They should NOT take the badminton birdie with them

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SUPPLY LIST

- A dozen or so boxes, jars, buckets, etc., containing odd looking items.
This is a perfect opportunity to shop for Halloween gag items like eye balls or bugs. Also, exotic (dried) foods that your children are unlikely to recognize by sight.
If you intend to have parallel stations, all of them can use the same supplies.
- Some display decorations. A table cloth, streamers, etc.
- A few colorful plastic badminton birdies (shuttlecocks).
Each team will need one, but having spares is handy, to simplify resetting the room.
- A bulk supply of colorful animal rings. One for every student, with plenty of extras for little siblings, or to accommodate the occasional dud. We have seen some that light up, which are very satisfying.
- Printouts of the **Translation Guide** (at least one per trade rep), which includes a picture of the trading goal (a picture of some 'rockets' which look very much like badminton birdies).
- Outgoing puzzle – **Space Port**
- Hallway signs saying – **Trading Post**
- Masking tape – for signs
- Thick black marker – for drawing arrows on signs
- Team list – listing each team, and their level expected level
- Pencil – to check teams off as they arrive
- Water – actors talk a lot, and get thirsty

COSTUME SUGGESTIONS

The receptionist and departure helper can wear whatever they like.

The trade rep has a flamboyant style, including the rings that will feature in the script, and be given away. Consider building on this, with an over-the-top flashy shirt or hat. This will also make the rings stand out less, in context.

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STATION SETUP

- Take a picture with your cell phone of both the classroom area you intend to use, and the hallway outside. This will help you return any moved furniture back where you found it.
- Create a space for the alien(s) to work, where students will know not to enter. For example, a cordoned off area with a countertop behind you, and a barrier of large work tables separating the students from the aliens and their storage area.
- Arrange the boxes/jars/buckets on the counter behind the aliens; within site of the arriving teams, but where their contents aren't visible. Make it look mysterious and interesting. Augment the display with empty cartons if needed. Enough to give a sense of a full and interesting store.
- Find a hiding place to store the extra animal rings.
Each Trade Rep should wear at least one, and keep a number of others either in their pocket, or else nearby where students won't readily see them.
- Place a copy of the **translation guide**, including the trading goal picture of the badminton birdie (a.k.a. the miniature rocket), on each trading counter.
- Aliens should practice their gesture language, as described in the **translation guide**.
In particular, practice the request you are going to make, to describe the animal rings. For example: small + colorful + hand + animal. Be able to do it smoothly and fluently, and also be able to slow down to an exaggerated (and obvious) version.
- Place a reception table in the hall, at least 10 feet from the classroom door.
- Place the supply of outgoing puzzles on the table, along with the team list.
Also leave extra copies of the **translation guide**, minus the picture of the badminton birdie, with reception. Teams waiting for their turn can look through these.
- Hang up signs
 - Tape one of the hallway signs to the front of the reception table, or on a wall above it, so arriving teams know they're in the right place.
 - Tape the remaining signs along the route from the solving area to this station. Use a black marker to add arrows for direction at each intersection.
 - The first sign should be inside the solving area, at the exit, where teams inside can see it.
 - Where logical, group with other station signs for easier visibility.
 - There's no need to mark the classrooms themselves. The whole purpose of the signs is to help teams find their way from the solving area to your reception table.

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LAYOUT TIPS

Make sure the reception table is the first thing incoming teams will see.

Leave a sizable buffer between the reception table and the classrooms. At least 10 feet, but farther is better. This way, teams waiting outside won't crowd the actors, who can then talk to one team at a time outside the station room. Also, this means that teams that spill out of the room giggling won't immediately run into the next team in line.

Try to block the view of the station activity from teams waiting in line, so as not to spoil any surprises.

If you have room, and enough staff for separate receptionist and departure helpers, give them each their own desk, and create a loop route for teams to go through. The receptionist table gets the tame list. The departure table is closer to the classroom, and gets the outgoing puzzles. However, if you are understaffed, the receptionist and departure assistant jobs can be merged into one person at one desk.

TEAM MANAGEMENT AND PARALLEL ROOMS

In order for the evening to flow smoothly, you will want each team to complete their experience at this station in 4-5 minutes. The slowest part of this station is while the kids study the translation guide. It can be fun to practice a few of the gestures, to get the kids in the spirit.

If you have an extra trade rep actor, you can give them the job of practicing with teams while they wait their turn. Or if you have enough of both trade rep and alien actors, you can simply stretch this station out to 8-10 minutes, and let the kids stumble through the translation guide in front of the alien.

It's important not to let too many teams wait outside in line. If you ever get 2 or more teams waiting, and can't run them in parallel, you can speed up the station by making fewer wrong guesses at what the kids are trying to say. Still make at least one, so the kids can enjoy the joke. Similarly, when the alien gestures back their desire for the animal ring, the trade rep could simply understand it themselves, and cut out that step.

FINAL TIPS

You are the guardians of this room. Make sure nothing wanders off, any litter or messes are cleaned up, and everything gets put back where it was!

Do not shut down this station until the event lead or the solving station lead confirm that no more teams are en route. If you have parallel rooms, and are reasonably sure you've seen all the teams, it is ok to shut down all but one room, until you hear final confirmation.

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ANECDOTES FROM PAST EVENTS

Over the years, we've seen a number of things go sideways. If you have some spare time while you wait for the first team to arrive, read on. You never know when one will happen to your station.

Unsolved puzzles

Some teams show up at the station with a garbled answer. If they're close, feel free to help them find the real answer. Alternatively, point out the QR code in the bottom corner of the answer page -- it links to a web page that can show coaches how to get the correct answer. More rarely, a team that doesn't understand how the adventure works will show up without even trying to solve the puzzle. They likely think they were supposed to solve it together with you. These teams should be sent back to the cafeteria to work on the puzzle -- that's half the adventure!

Wrong station

Signs from the cafeteria to the stations may not be as clear as you thought. Eager teams will run to the first station that looks like a candidate. So double check that their answer page matches your station. If they should be elsewhere, help them find it. Then check your signs!!

One more team

By the end time of the adventure, your actors are probably exhausted, and eager to pack up. But all too often, there's one more team you didn't account for. If they show up after the station has closed down, all their math work will seem in vain. So double check before you close up -- send a runner to the cafeteria to confirm.

The mile-long line

Beware long queues of teams waiting to experience your station. Not only is waiting in line the least fun part of the evening, but antsy kids can have a hard time waiting patiently. Be creative to clear out queues as soon as they occur. Take two teams through a station at a time. Slim down the actor's lines. Give hints. Anything.

Teenagers

Teenagers are a fantastic second source of actors, volunteers, and even coaches. But beware leaving groups of them unsupervised in a classroom. Groups of teens with spare time between adventures can get unfortunate ideas for pranking their old elementary teachers and younger siblings.

Scared little ones

The youngest adventurers can be slow to catch on to the spirit of your station. If your station calls for bravery, they may be terrified. If it calls for comedy, the jokes may go completely over their head. Feel free to tone down the drama, talk through the jokes, or just feed them lines.

Tag-along siblings

Math Adventures are great family and community events. In order for parents to be able to coach and act, it's nice to also let them bring any pre-school age little siblings along for the ride. Those kids won't be interested in the math puzzles, but if you can loop them into the theatrics, do so. And if nothing else, make sure they get any token giveaways that their older siblings get.

Hidden supplies

Make sure everyone working a station knows where the stash of extra supplies are. This is all the more important when a station is split across two or more parallel rooms. Sometimes one actor thinks the supplies are all used up, when in fact there's a second stash in another box. Review all supplies at the start, including how much to give to each team that comes through, and how many total teams are expected.

No-show actors

If your station is really short-handed, you can go to the cafeteria, and draft a spare coach into acting service!

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