Write It Do It

[Division B/C]

Georgia Tech Event Workshop Series
2024-25

Science Olympiad
at
Georgia Tech®

The Rules Sheet

- Basic rules:
  - 25 minutes for writer, 20 minutes for doer
- Drawings and diagrams not allowed–keep it to something you can type on a keyboard!
- Tiebreaker–for doers only :)

1. **DESCRIPTION:** One participant will write a description of an object and how to build it. The other participant will attempt to construct the object from this description.
   A TEAM OF: 2   **APPROXIMATE TIME:** 50 minutes

2. **EVENT PARAMETERS:**
   a. The participant who will be doing the writing must bring a writing utensil.
   b. No other materials or resources are allowed.

3. **THE COMPETITION:**
   a. One participant from each team is shown an object, which may be abstract but is the same for all teams, built from, but not limited to, such items as science materials, inexpensive materials (e.g., straws, push pins, Styrofoam balls, paper cups, Popsicle sticks, etc.) or commercial sets (e.g., K'NEX, Tinker Toys, Lego, Lincoln Logs, etc.). This participant is not allowed to touch the object unless the Event Supervisor permits it.
   b. The participant viewing the object has twenty-five (25) minutes to write a description of the object and how to build it. There will be no advantage to finishing early.
   c. Drawings and diagrams of the model or subsections of the model are not allowed. Numerals, words and single letters that fit within the context of the written description are allowed. The participant may use abbreviations and do not have to define the abbreviation. Editing, punctuation, or scientific symbols that fit within the context of the written description are allowed.
   d. The Event Supervisor will pass the description to the second team member who will take the description and attempt to recreate (build) the original object in twenty (20) minutes.
   e. Supervisors will attempt to use different materials than the materials that were used last year.

The Rules Sheet

- Scoring: the team that builds the model that most resembles the original wins
- The more points, the better!
- Size, location, color, orientation, connection

4. **SCORING**:
   a. The team that builds the object nearest to the original and has a written description with no drawings or diagrams will be declared the winner.
   b. Each individual piece will receive points as applicable for: proper size, color, location, orientation, and/ or connection.
   c. Pieces that are connected correctly beyond an incorrect connection will be counted in the score. No penalty will be assessed for parts that were not used.
   d. Students drawing a subsection of the model will be ranked in Tier 2. Drawing a picture of the model will result in disqualification.
   e. Time for the construction phase will be used as a tiebreaker.

Recommended Resources: The Science Olympiad Store (store.soinc.org) carries a variety of resources to purchase; other resources are on the Event Pages at soinc.org.

You typically receive points for just having an item on the model (when time is almost up, try and get as many things as possible stuck on!)

Tips for Writers

- Describe the build in references, frequently - saying things like "it should look like a giraffe" or "in an L-shape" can give your writer important check-ins that they are on the right path. "What does it look like, after this step?"
- Leave some white space - don't just make a wall of text that's hard to read, and hard to find your place in
- Label/number objects, concisely - name them whatever makes sense AND distinguishes them from all other objects. Several of the same object can be numbered, as long as you're clear which is which
- Always be very clear what object you're referring to!
- Erasing completely takes longer than crossing out
- Remember that you can change perspectives - you can tell your builder to turn the whole build 90 degrees, or flip it upside down - they aren't restricted to only what you as the writer can see

Tips for Writers 2

- If low on time, it's worth the points to overgeneralize details - "draw a spiderweb", instead of specifying 3 hexagons with lines through the vertices
- Use your best judgement on what matters - sometimes the colored line on the bottle cap needs to face outwards, sometimes it doesn't matter
- General rule of thumb is if you have the time to worry about it, then worry about it
- Start thorough on the "roots and trunk" of the build, then worry about the leaves
  - If your builder can't understand what the base of the build is supposed to look like, everything you write after that depends on the base will be wrong
  - Writers tend to write more thoroughly at first, and then less detailed as they run out of time - so start with the important stuff!
- Use your judgement to determine the pace you need to go at - speed sacrifices clarity/details and vice versa

Tips for Doers

- Read all of your writer's instructions before starting anything–try and picture in your mind what this model should look like!
- Approach the building methodically, if something is unclear or confusing, don't panic! Use your best judgment on what to do.
- Go through the instructions step-by-step. If you read too fast, or rush, you may skip something crucial.
- Prioritize accuracy over speed. You'll get more points for a half-built, but completely accurate model than a fully put-together, inaccurate model.
- Double check small details–points for orientation, location, and color (differentiate between light and dark versions of something) will quickly add up and make up a large portion of your overall score

Tips for Doers (on a time crunch)

- Be very aware of your time - going too slow for details can mean you don't even get halfway through the build
- If something doesn't make sense, that's when you need to slow down, reread, see where you've gone wrong
- Time IS a tiebreaker - if you get an extremely easy build (as is common at some invitationals and regionals), then time is going to be the deciding factor
- A lot of builds can have a lot of parts - not necessarily anything confusing or things that throw you off, just a LOT of parts. These need to be built fast, just to be able to complete the build (writers, you can also let your builders know when they need to go fast, and when they should take time for details - mark important paragraphs, tell them that it's a short build, etc.)

Example models
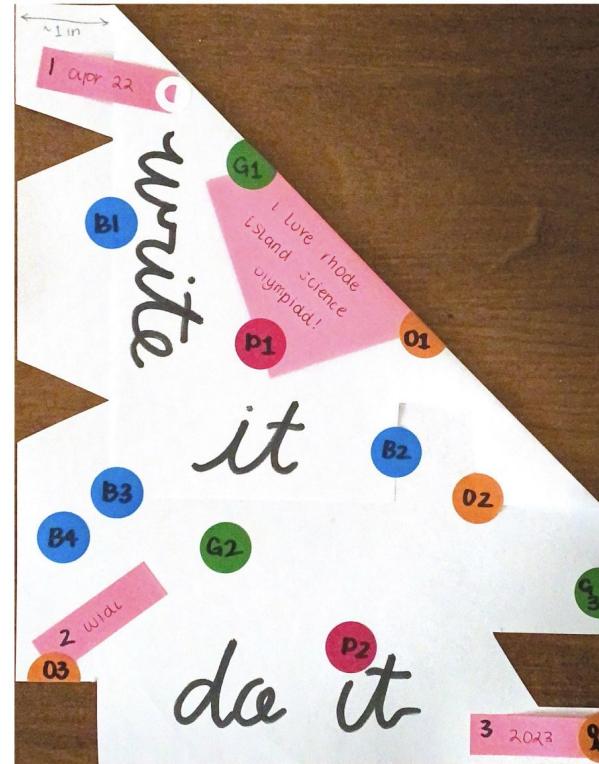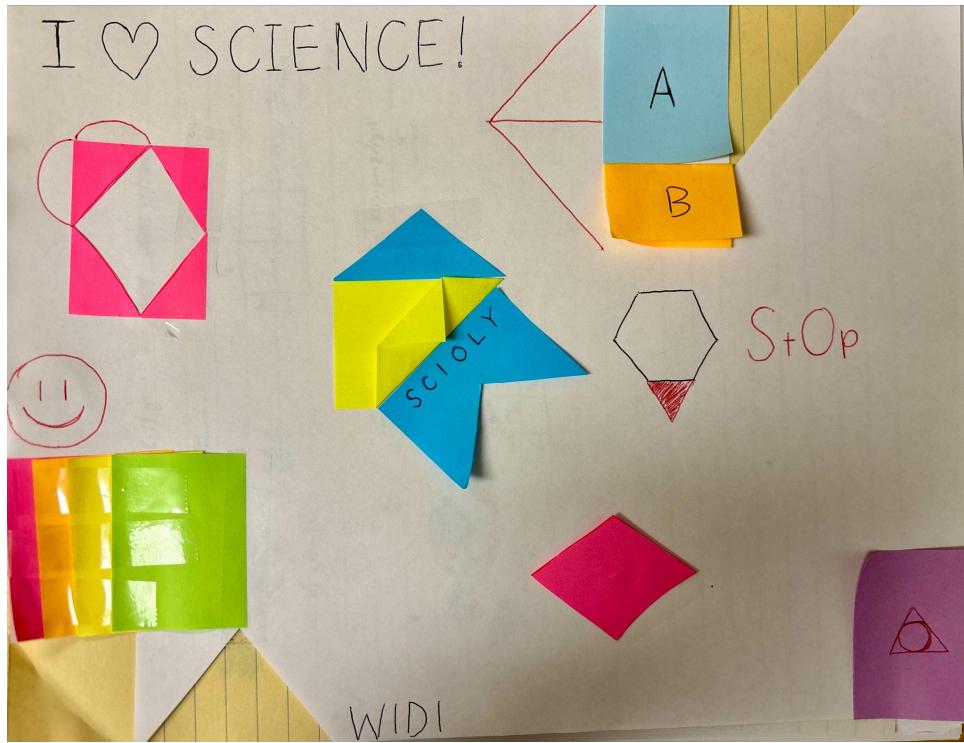
Example models
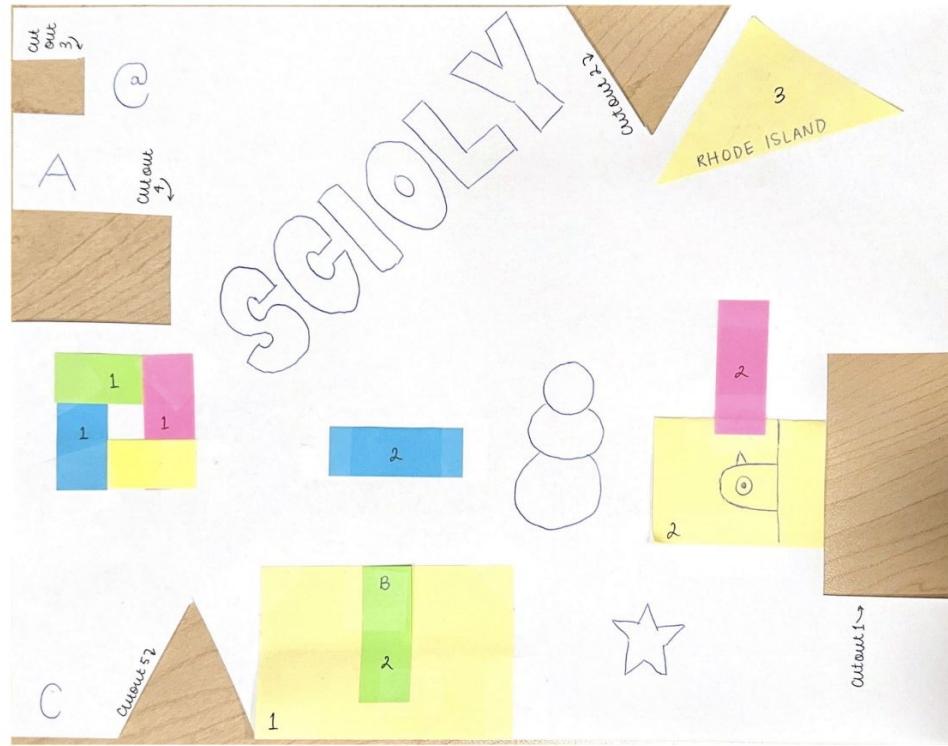
Example models

Tips from a Veteran

- Time management is incredibly important - as both a writer and a doer, you need to know how to pace yourself
- People that think alike tend to do better as a pair - someone who looks at the words you write and thinks the same thing. If you can, test for it
- Writing in a way your doer understands takes a lot of practice - so practice as much as possible, many DIFFERENT KINDS of builds! (origami, K'NEX, drawings)
- Come up with standards between the two of you that you have in common - use centimeters (width of pinky), inches, thumb-lengths, whatever works for you. Some I used: cardinal directions, x/y/z dimensions, degrees clockwise/counterclockwise, left/right/front/back/up/down (make sure to define front vs back!), clock times, "standing up", "lying down", "upside down"
- (in my experience) Time is majorly important to this event - on easy builds, you want to win the tiebreaker, and on hard builds, you want to finish as much as you can

Tips from an Event Supervisor

- Find the best ways to maximize your points (high yield strategies!)
- You will get points just for having objects–some event supervisors will provide points for getting something really close to what it's supposed to be (lettering, orientation)

Object	Present? (1 point if yes, 0 if no)	Detail Points	Point assignment for details
White paper (base)	1	2 pts if folded correctly, 1 pt if folded in general	2
Pink tab 1	1	"apr 22" (2 pts if all lowercase, 1 pt if not but still present) Angled down and right (1 pt)	3
Pink tab 2	1	"widi" (2 pts if all lowercase, 1 pt if not but will present) angled up and to the left by 45 degrees (2 pts if angled correctly, 1 pt if angled up and to left in general)	4
Pink tab 3	1	"2023" (1 pt) horiozontal 1 pt)	2

Additional Resources

Invitationals provide past exams/models that you can practice with!

Try new models/techniques! What are common shapes?

Origami makes for very low-effort builds that are surprisingly difficult

Try "asynchronous" builds! Practice is practice

THANKS!