# **Fun with Puzzles**

Hello STEMquest community! Today we'll be tackling a type of logic puzzle called Zebra puzzles (sometimes called Einstein puzzles, since it is purported that he loved these types of puzzles).

# EASY

Four boys are at home to watch some movies. Figure out the favorite genre of movie for each boy.

- Joshua is sitting at one of the ends.
- The boy wearing the Black shirt is somewhere to the left of the youngest boy.
- Joshua likes Horror movies.
- The 14-year-old boy is at the third position.
- The boy wearing the Red shirt is somewhere between the 13-year-old boy and the one who likes Action movies, in that order.
- Daniel likes Thriller movies.
- The boy who is going to eat Cookies is at one of the ends.
- The boy wearing the Black shirt is exactly to the left of the one who likes Thriller movies.
- The boy who is going to eat Crackers is exactly to the right of the boy who likes Comedy movies.
- The boy wearing the Red shirt is somewhere between the boy who is going to eat Popcorn and Nicholas, in that order.
- At one of the ends is the boy who likes Thriller movies,
- Nicholas is somewhere between Joshua and Daniel, in that order.
- At the first position is the boy wearing the Green shirt.

| Shirts: Black, Blue, Green, Red<br>Names: Daniel, Joshua, Nicholas, Ryan<br>Movie Genres: Action, Comedy, Horror, Thriller<br>Snacks: Chips, Cookies, Crackers, Popcorn<br>Ages: 11, 12, 13, 14 |        |        |        |        |  |  |
|---|--------|--------|--------|--------|--|--|
|   | Boy #1 | Boy #2 | Boy #3 | Boy #4 |  |  |
| Shirt   |        |        |        |        |  |  |
| Name  |        |        |        |        |  |  |
| Movie Genre   |        |        |        |        |  |  |
| Snack   |        |        |        |        |  |  |
| Age   |        |        |        |        |  |  |

#### MEDIUM

Five girls are sitting in a row. Each girl has a favorite color, a chocolate bar, a pet, a hobby, and a place to go on vacation. Determine the name of the girl who owns the crocodile.

- Jo likes the Wispa Bites.
- The girl with the Hamster likes Swimming.
- Hannah eats Dairy Milk.
- Jessica is on the left of Georgina.
- Lucy is the first on the left.
- The rightmost girl likes Swimming.
- The girl who eats Milky Bars owns a Horse.
- The girl in the middle eats Dairy Milk.
- Jessica likes Green.
- The girl on the left of the middle wants to go to Tobago.
- The girl who wants to go to the Maldives likes Lilac.
- The girl who likes Wispa Bites sits next to the girl who wants to go to Florida.
- The girl who likes Pink wants to go to Florida.
- The girl who sits first on the left likes Lilac.
- The girl that likes Blue owns a Puppy.
- The girl who likes Skiing sits next to the girl who has a Hamster.
- The girl on the right of the girl who likes Tennis likes Horse Riding.
- The girl next to the girl who likes Milky Bars likes Boost.
- The girl who likes Purple wants to go to Canada.
- The girl who likes Crunchies owns a Rabbit.
- The girl who likes Skiing sits next to the girl who plays Bowling.
- Jessica wants to go to Australia.

Colors: Blue, Green, Lilac, Pink, Purple Names: Georgina, Hannah, Jessica, Jo, Lucy Chocolates: Boost, Crunchies, Dairy Milk, Milky Bars, Wispa Bites Pets: Crocodile, Hamster, Horse, Puppy, Rabbit Hobbies: Horse Riding, Skiing, Swimming, Bowling, Tennis Vacations: Australia, Canada, Florida, Maldives, Tobago

|           | Girl #1 | Girl #2 | Girl #3 | Girl #4 | Girl #5 |
|-----------|---------|---------|---------|---------|---------|
| Color     |         |         |         |         |         |
| Name      |         |         |         |         |         |
| Chocolate |         |         |         |         |         |
| Pet       |         |         |         |         |         |
| Hobby     |         |         |         |         |         |
| Vacation  |         |         |         |         |         |

## HARD

Five kids are together playing an RPG game. Their characters are side by side fighting different kinds of monsters. Each character is from a specific race and is using a single weapon.

- Jerieviel is next to the character using a Hammer.
- The Human has the lowest level.
- The character using a Sword is exactly to the right of the level 14 character.
- The level 12 character is at one of the ends.
- The character wearing Red is somewhere to the left of the one fighting a Dragon.
- The character fighting a Beast is exactly to the left of the character that has a Hammer.
- The Gnome is at one of the ends.
- The player that is level 8 is exactly to the right of Raolind.
- Aferidon is wearing Green.
- The character fighting with a Sword is somewhere to the right of the one wearing Blue.
- At the fifth position is the character using a Bow.
- The one fighting a Fairy is exactly to the left of Aferidon.
- The character that is level 10 is at one of the ends.
- The Human has a Hammer as a weapon.
- The character wearing Green is somewhere to the left of the player that is fighting an Aberration.
- The Dwarf is at the first position.
- The Halfling is next to the level 10 character.
- Terakoth is at the fourth position.
- At one of the ends is the character fighting with a Spear.
- The character wearing Black is exactly to the left of the character fighting a Fairy.

Wearing: Black, Blue, Green, Red, White Names: Aferidon, Hedrilin, Jerieviel, Raolind, Terakoth Races: Dwarf, Elf, Gnome, Halfling, Human Weapons: Axe, Bow, Hammer, Spear, Sword Monsters: Aberration, Beast, Dragon, Fairy, Humanoid Levels: 6, 8, 10, 12, 14

|         | Character #1 | Character #2 | Character #3 | Character #4 | Character #5 |
|---------|--------------|--------------|--------------|--------------|--------------|
| Wearing |              |              |              |              |              |
| Name    |              |              |              |              |              |
| Race    |              |              |              |              |              |
| Weapon  |              |              |              |              |              |
| Monster |              |              |              |              |              |
| Level   |              |              |              |              |              |

### VERY HARD

Five women are side by side donating blood. Use the logic and the clues to figure out their blood types.

- The A+ donor is next to the B+ donor.
- Brooke is at one of the ends.
- The woman wearing the Black shirt is somewhere to the left of the 5'5" tall woman.
- The Actress is next to the Chef.
- Kathleen is 40 years old.
- The Florist is somewhere to the right of the woman wearing the Purple shirt.
- The oldest donor is 5'3" tall.
- Brooke is next to Nichole.
- The 35 years old woman is exactly to the left of the 30 years old woman.
- The 5'2" donor is somewhere between the O- donor and the 5'5" donor, in that order.
- Kathleen is at one of the ends.
- The woman wearing the Purple shirt is somewhere to the right of the woman wearing the Green shirt.
- The B+ donor is 5'4" tall.
- The youngest woman is next to the 30 years old woman.
- The woman with AB+is exactly to the left of the A+ donor.
- Meghan is somewhere to the right of the woman wearing the Purple shirt.
- The woman wearing the Green shirt is somewhere between the Actress and the woman wearing the Red shirt, in that order.
- At one of the ends is the 5'3" woman.
- The O- donor is 35 years old.
- The Florist is somewhere between the Actress and the Engineer, in that order.
- The woman wearing the Blue shirt is somewhere to the left of the woman wearing the Red shirt.
- The AB+ donor is next to the youngest woman.

| Shirts: Black, Blue, Green, Purple, Red<br>Names: Andrea, Brooke, Kathleen, Meghan, Nichole<br>Blood Types: A+, AB+, B+, B-, O-<br>Ages: 25, 30, 35, 40, 45<br>Heights: 5'2", 5'3", 5'4", 5'5", 5'6"<br>Jobs: Actress, Chef, Engineer, Florist, Policewoman |          |          |          |          |          |  |
|---|----------|----------|----------|----------|----------|--|
|   | Donor #1 | Donor #2 | Donor #3 | Donor #4 | Donor #5 |  |
| Shirt   |          |          |          |          |          |  |
| Name  |          |          |          |          |          |  |
| Blood Type  |          |          |          |          |          |  |
| Age   |          |          |          |          |          |  |
| Height  |          |          |          |          |          |  |
| Job   |          |          |          |          |          |  |
|   |          |          |          |          |          |  |