

Hello Students,

Blazing Trails welcomes you to the first virtual field trips of Larsen Motorsports, a Jet Dragster racing facility based in Florida. In light of our current situation we are choosing to make the best of every opportunity. Life is fast paced; it is all about taking the situation you have at hand and doing your absolute best with it. We have teamed up with your teachers to provide a fun learning experience focused around STEAM (Science, Technology, Engineering, Arts, and Mathematics) education.

In order to complete this activity you must first make sure that you have signed up using the link that your teacher provided for you:

<https://www.blazingtrails.info/students>

After you have signed up follow this link: <https://youtu.be/ncsLrQLsR5A> to the LIVE YouTube video that will be posted at the time given to you by your teachers. If you are not able to watch the video during the live streaming time it will stay posted on the Larsen Motorsports YouTube Channel via this link: <https://www.youtube.com/user/larsenmotorsport>

The following page is a list of questions that should be answered during the tour based on the information that is provided during the video. This page can be emailed or submitted to your teachers after the virtual tour has ended.

Name: _____

Teacher: _____

Directions: Follow along with the virtual tour and answer the questions based on what the Elaine Larsen and her Blazing Trails team tell you. Make sure to ask questions in the comments if you get confused.

1. What type of racing does Larsen Motorsports do?
 - a. Jet Racing
 - b. Road Course Racing
 - c. NASCAR
 - d. Dirt Racing

2. What is the purpose of a Turbine Engine Test Platform?
 - a. Testing engines for leaks
 - b. Testing new fuels
 - c. Testing to make sure an engine runs
 - d. All of the above

3. How many World Championships does Elaine Larsen have?

4. In what year did Elaine Larsen hit a wall, and at what speed?
 - a. 2010 @ 100mph
 - b. 2010 @ 280mph
 - c. 1994 @ 50 mph
 - d. 1990 @ 150 mph

5. Who is the partner of Blazing Trails that has provided the display rockets?

6. Race suits and space suits have a material in common, what material do they both use?

7. What is the name of the room where the composites are made?

8. Name two different types of composites that are used at LMS and the benefits of each?

9. What kind of car are the body molds used for?
 - a. Funny Car
 - b. Sports Car
 - c. Dragster
 - d. Indy Car
10. Aerodynamic solutions at LMS are accomplished by using CFD. What does CFD stand for?
11. What types of modeling programs are used at LMS?
12. What two models of jet engines does LMS house in shop?
13. What model of engines are used in Larsen Motorsports Jet Dragsters?
14. At what degree is the engine mounted in the car?
15. What department of Larsen Motorsports is used to create the graphics found on the cars and trailers?
16. What stops the jet dragsters at the end of a run?
17. The chassis structure is made of what type of material?
18. True/False: The chassis is designed for the G-Load it will experience, when the parachutes deploy.
19. What is one of the main purposes of the creation of the Gen. 6 jet dragster?
 - a. Research & Testing
 - b. To go faster than Gen. 5
 - c. To be more stylish
 - d. To break world records
20. True/False: Jet dragsters have a speedometer on the dash.

21. What kind of degrees are involved in motorsports?
 - a. Engineering degrees
 - b. Business degrees
 - c. Art degrees
 - d. All of the above and more

22. What does STEAM stand for?

23. What does CNC stand for? (refer to earlier part of the tour)

24. Where is the thrust center of pressure on the General Electric J-85?
 - a. The afterburner
 - b. The face of the rear turbine wheel
 - c. The inlet
 - d. The engine mount

25. How many revolutions per second does a compressor blade rotate?
 - a. Approximately 100 revolutions per second
 - b. Approximately 30 revolutions per second
 - c. Approximately 280 revolutions per second
 - d. Approximately 150 revolutions per second