Global Sport Institute
Arizona State University

Documentary Study Guides

Drive fast, go left…print parts? 3D Printing Finding a Home in NASCAR

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GROUP WORKSHEET

study guides

This study guide was created by the Global Sport Institute at Arizona State University. https://globalsport.asu.edu

Drive fast, go left…print parts?
3D Printing Finding a Home in NASCAR – Group Worksheet
https://globalsportmatters.com/watch/2018/09/06/3d-printing-finding-home-nascar/

Answer each of the following questions with bullet points or short sentences as you watch the 9-minute documentary. You'll have a few minutes after watching to finish answering.

1. When did 3D printing enter NASCAR?

2. What is the difference between traditional manufacturing and additive manufacturing?

3. What part of the car is 3D printing being used for currently?

4. What do the speakers say about the size of what can be printed?

5. Can you use 3D printing for safety related parts? Why or why not?

6. How is 3D printing beneficial?

7. What are the speakers' thoughts and attitudes about the future of 3D printing in NASCAR?

8. What's the biggest limitation of 3D printing?

9. What is the racing environment like in NASCAR?

10. How fast can you create something with 3D printing?

Discussion Activities - wait until your teacher prompts you to start this section

1. Think of an activity, hobby, or skill you have. What are some ways that technology has helped it develop over time? List 3-4 technological advancements with a short description for how each one has helped the activity/hobby/skill develop.

2. If you could create an object with 3D printing to use in your everyday life, what would it be? Think about your routines - what would make them easier? Chores, fixing things around the home, making food, driving, your job, etc.

    a. Name the object you would create.
    b. Describe what it would look like.
    c. Describe what it would do.
    d. Explain how it would make something easier or better in your everyday life.

3. Regardless of whether you care about NASCAR or not, the topic of 3D printing likely seems totally different from the sport itself. However, the documentary shows that they are integrated. What is a scientific topic or practice that is integrated into one of your interests/hobbies? How might you be able to help people get intrigued by your interest/hobby by showing them the science that is part of it? For example, playing a stringed instrument (e.g. guitar, piano) involves the physics of vibration and sound waves, so if someone never played an instrument but liked physics, they might be intrigued to learn about the physics involved in music.
    a. What is the interest/hobby?
    b. How is a scientific topic or practice part of it?
    c. Write 2-3 sentences you would say to someone who enjoys science to get them intrigued by your interest/hobby.