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| **Racin Rays – Solar Cars** **3rd - 5th Grade****Teams of 2** **Limit 5 Teams per school****Teams are not permitted to compete in other STEMpalooza events on the same day*** Location: MOSI Center for Learning Parking Lot
* Teams must report to the MOSI Center for Learning Parking Lot by 9:00am.
* Teams must compete using the Pitsco Solar Car Kit (provided at trainings)
* Teams are allowed to share the solar panel (not the cars)
* Teams must be prepared to run on batteries
* Teachers may bring 5 teams of 2; Each team must have a car
* Teams will be given one minute to hook up their car to the guide wire.
* Awards will be given at the end of the event.
 | **Engineering Design Challenge****Primary (2nd/3rd)****Intermediate (4th/5th)****Teams of 4*** Location: MOSI Center for Learning Media Room
* Teams will be given a request for proposal and materials needed.
* In a set amount of time, they will be required to design and create a product to meet the specifications of the proposal.
* Teachers may only bring one team for primary and one team for intermediate per school.
* Awards (Gold, Silver, Bronze) will be given at the end of each event session.
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| **Crack the Code Challenge****Primary (2nd/3rd)****Intermediate (4th/5th)****Teams of 4*** Location: MOSI Rainforest Room (inside Museum)
* Teams must sign-in first at the MOSI Center for Learning before going to the museum.
* Team/Teachers/Guests must travel to the museum together as a group.
* Each team will have an adult sponsor travel with them throughout the museum during the competition. Please make sure that a teacher from your school is available to stay during the event.
* In a specified amount of time, teams will have the opportunity to solve problems and open locks to Crack the Code!
* Problems will include math and science tasks and tools.
* Teachers may only bring one team for primary and one team for intermediate per school.
* Awards (Gold, Silver, Bronze) will be given at the end of each event session.
 | **Robot Maze Challenge****Primary (1st - 3rd)****Intermediate (3rd – 5th)****Teams of 4*** Primary Location: MOSI Center for Learning
* Intermediate Location: MOSI Center for Learning Bullpen (front glass room)
* Primary teams may use Botley robots. Teams should bring all pieces of the Botley robot with them to the event.
* Intermediate teams may use NXT, EV3, Spike Essentials or Spike Prime. Teams need to bring their built robot to the event.
* Teams will be shown a maze (intermediate) or an obstacle course (primary) created on the floor and have a given amount of time to program their robot.
* Teachers may only bring one team for primary and one team for intermediate per school.
* Awards (Gold, Silver, Bronze) will be given at the end of each event session.
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