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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. |
| **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. |