

## Schedule

### 2019

School year team registration opens  
& Challenge Manual released ..... 9/23

Team support virtual meeting ..... 10/23

Meet a Mars Scientist ..... 11/15

School year team registration closes .... 11/15

Erosion video submission due ..... 12/10

### 2020

Summer team registration opens\*..... 1/1

Team support virtual meeting ..... 1/15

Search for life video submission due ..... 1/15

Meet a Mars Scientist ..... 2/5

Mission Patch submission due ..... 2/14

Team nomination opens, closes ..... 3/1-3/5

Invitations to Challenge Events sent ..... 3/15

Challenge Event ..... April\*\*

Mars 2020 rover launch window &  
Grand Prize Trip ..... 7/17-8/5

Summer team registration closes\*..... 7/1

\* Unless stated otherwise, all schedule dates and deadlines given are schoolyear program dates. Summer programs create their own due dates at the discretion of their lead educator(s).

\*\* Hub Event dates at [nwssp.org/mars](https://nwssp.org/mars)



Sojourner. Spirit.  
Opportunity. Curiosity.

These are the four rovers NASA has sent to Mars so far — but more than that, their names represent what drives the teams behind the rovers.

Are you a sojourner? Do you have spirit and curiosity? Are you ready to launch when the next opportunity arises?

The ROADS on Mars challenge gives teams of students grades 3–12 a chance to tackle a mission to Mars, following in the path of the next rover — Mars 2020. Just like the next rover, teams will face challenges including engineering and programming, analysis of biological signatures and geologic features, not to mention flying to Mars and successfully landing.

Top teams from across the country will win a trip to Kennedy Space Center for the launch of Mars 2020!

# Rover Observation And Drone Survey on Mars Challenge

An immersive opportunity for students to use the latest technologies to **explore, inspire, create, and achieve.**



#MARS2020  
#ROADSonMars

## SUPPORT

The ROADS on Mars Challenge aims to increase student interest in STEM pathways and careers, particularly in underserved communities. To support teams:

- No experience is necessary to participate.
- ROADS on Mars is free to register.
- Professional development will be available to Flight Directors in select cities across the United States.
- Free or discounted drones and robots may be provided upon request dependent on availability.
- Travel assistance may be provided to teams in select Hub regions. See the ROADS on Mars Challenge website for full details.

[nwessp.org/mars](http://nwessp.org/mars)



## TEAM STRUCTURE

### Flight Director

An adult team lead who acts as the coach and primary point of contact.

### Student Members

Teams of 3-12th grade students will work together on the Challenge. Teams must have at least 3 students but there is no maximum team size.

### Flight Crew

Five team members will represent their team at a Regional Challenge Event and could earn a trip to watch the Mars 2020 rover launch at Kennedy Space Center.

## REGIONAL HUBS:

Organizations around the country will host ROADS on Mars for their region. Select the Hub nearest to you! For a full list of Hubs, go to [nwessp.org/mars](http://nwessp.org/mars)



## CHALLENGE

### RESEARCH & TRAINING



Plan for your mission to Mars by researching analogs on Earth. Create an erosion model, crater model, and practice searching for signs of life and past life.

### ENTRY, DESCENT, & LANDING

Design a drone delivery system to orbit Mars and drop off your payload at the landing site.



### OBJECTIVES

Program your rover to traverse the martian surface and complete as many objectives as you can: make observations, collect and deliver samples, and navigate martian obstacles.

