

Tire Tracks Challenge

Teacher Information

Materials Needed:

8-12 toy cars (Hot Wheels or Matchbox size work best, look for distinct types of tires)

Copies of Tire Tracks worksheet

White paper

Clear tape

Ink pads

NOTE: I use the micropore ink pads available from Quill – Item # 901-21281. The ink pad is made from a harder material than the standard foam pads and holds up well to repeated use for this lab.

Preparation:

1 – Label the cars with letters using small pieces of tape. As you create the original tracks in the next step, make a key for your records showing which numbers on the Tire Tracks worksheet correspond to the letters on the cars.

2 - Roll the tires of each car on the ink pad and then roll across the Tire Tracks worksheet. Be sure to label the cars to help you keep track of each set of tracks. If there is not enough space on the worksheet, make the tracks on another piece of paper and cut/paste a good sample of them into the boxes.

3 - Make enough copies of the Tire Tracks worksheet (one per group.)

Activity:

1 - Give each group a copy of the Tire Tracks worksheet with the sample tracks.

2 - Give one car to each group and an ink pad. Allow time for each group to make a set of tracks on a plain white sheet of paper.

3 - Have the groups pass around the cars. You may want to allow the groups to ink the wheels and create their own tracks for comparison. If so, you will need to provide white paper.

4 – Allow time for the students to identify the tracks and then check their answers.

5 - Discuss how tire tracks can be used to solve crimes.

NOTES from T. Trimpe:

1 - You might also consider setting up stations around your room. Place one car and one ink pad at each station. Have the groups rotate through the stations to create their own tracks. I have several identification labs that are races – the first group done receives a prize and bragging rights. I require the groups to have an answer for each item before they can check their answers the first time. I mark the ones that are incorrect and the students keep working until they get them all correct (or until at least half of the groups are finished.)

2 – To make it more challenging, provide more than 8 cars. The students will need to create tracks from all of the cars, but only some of them will be matches.

Tire Track Challenge



Work with your investigative team to identify each set of tracks shown below. Use the cars provided, ink pads, and white paper to make a set of tracks. Compare the tracks and label with the letters on the cars to show the matches.

#1

#2

#3

#4

#5

#6

#7

#8