

# HEAT SEEKER TAG

## 1. Area Set-Up

Create two circles: A small Earth (2m diameter), and large atmosphere (20m diameter).



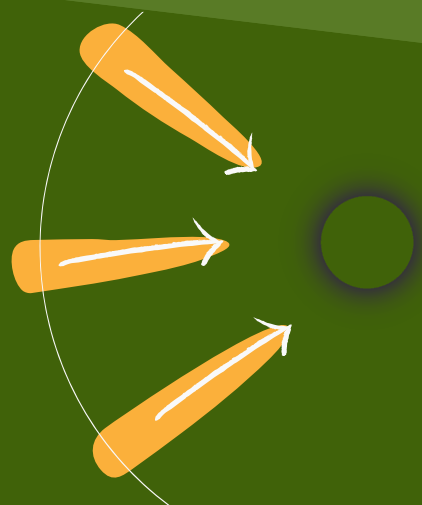
## 2. Student Set-Up



Identify 4 students as 'heat seeking' taggers. Give them a wearable blue identifier (pinny/vest/coloured band). These students start between the earth and the atmosphere. The rest of the students will be 'rays of the sun'. These students start outside the atmosphere circle.

## 3. How to play

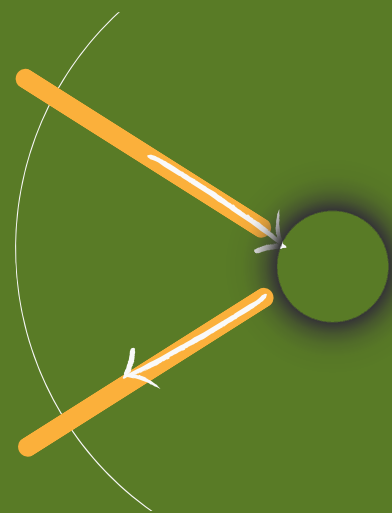
The 'rays of the sun' try to get to earth, and reflect back out to the outside of the atmosphere without being tagged. 'Heat seekers' try to tag. If a sun ray gets tagged, they sit down and are trapped!



## 4. Game Rules

'Heat seeker' taggers can only walk AND can only tag sun rays LEAVING the earth.

Sun rays can enter the atmosphere anywhere, and can run, but once they have entered they can only run in a straight line. They must put one foot inside the earth, then 'reflect' off the Earth on the same side they came in, and in a straight line. They can not wait at "Earth."



## 5. Progressions

Once the students understand the game, time how long it takes for all sun rays to be tagged. Then add 2 - 4 extra "heat seekers.". Re-time the game, noting the changes. Repeat 3 - 4 times.



## 6. Game Analogy

The more 'heat seekers,' the more sun rays (solar energy and heat) are trapped in the atmosphere. The 'heat seekers' represent gases. The tagged sun rays are trapped heat, warming the earth: the "Greenhouse Effect" in action!

# 7. Differentiations

Make the atmosphere smaller, and have the heat seeker taggers only take two steps in any direction before they must stop.

Make the atmosphere circle and earth circle larger, and allow the heat seekers to run.

Prior to the game, discuss activities that humans are doing that affect CO2 levels in the atmosphere. Put these into a box or bag called 'human activity'. Before adding extra "heat seekers," pull out a 'card' from the box or bag, and use this action to justify the inclusion of more heat seeker taggers (CO2). The following activity can be used as inspiration for this action:

## Climate Problems and Solutions

Name: \_\_\_\_\_

Look at each of the images. What could be the problem for our planet?  
What solution can you think of to address this problem?

Problem	How could this affect our planet?	Solutions
		
		
		
		
		
		