



Mathematics Scavenger Hunt

In this game small teams search for mathematically interesting items from a list and take pictures of them. This activity is about discovery, creative thought, and looking at things from a different perspective, which are fundamental in mathematics.

The scavenger hunt should ideally be played by teams of 3-5 kids ages 12 and up, or families (where adults can offer help interpreting some indications to younger members). It can be adapted to the specific conditions of your IDM celebration.

1 - Decide the location

Define the area where participants will be allowed to search for the items. It can be within the school grounds, a park, a city block, a small neighborhood, a historic site. Ideally big enough so groups can make independent discoveries but small enough that they still cross paths and feel they are all playing together.

It's also possible to structure the activity as a variation called a Math Trail, where all participants move together with a guide following a specific path, searching for items along the way. A Math Trail allows playing in spaces where people wouldn't normally be able to go by themselves (for instance, private areas of a school building) and to focus on places of mathematical or historical interest that people could overlook.

2 - Decide a time limit

Set a time limit to provide a little sense of urgency and keep people interested. We suggest 45 minutes. The activity shouldn't end when "all items are found", because there's always the chance to improve a previous finding. It's a collaborative activity, so teams can help each other to complete their lists.

3 - Define the list of items

Create a checklist of 10 items that groups should find. We provide illustrated cards with some examples (downloadable separately from the IDM website), including some blank cards where you can create new challenges. Feel free to adapt the activity to take advantage of what's available in the area where you'll play or the age groups.

Items should be easy to identify even by people without specific mathematical knowledge. They're not about finding answers to problems but rather to look at the world around us like a mathematician does.

4 - How to find and capture items

When an item in the list is found the team should take a picture of it. If cameras are not available or age appropriate it's possible to draw found items, write them in the back of the card, or mark their location on a map of the play area with a number or sticker.

"Staging" the picture (creating the requested thing instead of finding it spontaneously) is a valid strategy that should be suggested to participants. Lateral thinking and creative interpretation of instructions is encouraged. Many items can be interpreted in different ways, and it's OK to consider the alternative meanings (it's more scientific, in fact).

5 - Share the findings

After the hunt is over all groups share their findings. If participants are few they can sit together and show each other what they found from their phone screens. Larger groups can use a variety of mechanisms: printing the pictures and arranging them on a wall, sharing them on their preferred social network or uploading them to a shared gallery on an online photo service from which they can be shown on a large screen. Include the more technical people in your organization for the most effective and simplest solution.

There are no individual winners, this is a collaborative game where the goal is having fun and looking at things from a different point of view, focusing on some aspects of things that are part of different branches of mathematics. Use this final shared moment to award pins or stickers to all participants and take celebratory selfies.

Before the event

1. Decide the play area and time limit
2. Define the item checklist
3. Plan how teams will be formed and how items will be captured
4. Plan how teams will share the findings with everyone

During the event

1. Gather people and explain the activity
2. Form the teams
3. Inform about the location, time limit and meeting point
4. Hand out cards with the items to find
5. Hunt!
6. Share everyone's findings
7. Celebrate with a selfie!

Cards

- **English**
<https://www.idm314.org/resources/activities/idm-scamenger-hunt-cards-en.pdf>
- **Español**
<https://www.idm314.org/resources/activities/idm-scamenger-hunt-cards-es.pdf>
- **Français**
<https://www.idm314.org/resources/activities/idm-scamenger-hunt-cards-fr.pdf>
- **Deutsch**
<https://www.idm314.org/resources/activities/idm-scamenger-hunt-cards-de.pdf>

Create and Share!

Share your scavenger hunt photos with the world using the hashtags **#idm314hunt** and **#idm314** on social networks!

Have any ideas for new items to search for? Send them to us, we will consider them for next year.

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