

MASTER DETECTIVE TOOLKIT

CONFIDENTIAL.

WARNING.

Not suitable for children under 8 years. For use under adult supervision. Read the instructions before use, follow them and keep them for reference.

Kit Contents



No.	Description	Qty.	Item No.
1	Barrier tape	1	705076
2	Prong fastener	2	020039
3	Sticker sheet	1	716551
4	Fingerprint stickers	1	705067
5	Fingerprint powder (graphite)	1	702386
6	Invisible ink pen	1	705071
7	Plaster powder (gypsum)	1	771052
8	Wooden spatula	3	000239
9	Sheet of profile cards	1	716550
10	Plastic bag	5	705557
11	Magnifying glass	1	702387
12	Measuring tape	1	716643
13	Measuring cup	1	087077
14	Petri dish with lid	1	702184
15	Brush	1	705976
16	Forceps	1	700127
17	Screw-top tube	2	705073
18	Screw-top canister	2	704528
19	Blue chalk	1	705361
20	Red chalk	1	705075
21	Die-cut cardboard	1	716549
22	Ink pad	1	705072
23	Crime scene notepad	1	716552
24	Ultraviolet flashlight	1	713927

If you are missing any parts, please contact Thames & Kosmos customer service.

The additionally required items are highlighted in italic script at the beginning of each experiment.

You will also need:

One AAA battery (1.5-volt/LR03), felt-tip pen, pencil, ballpoint pen, permanent marker, glue stick, passport-like photo(s), string, tape, watch or stopwatch, white paper (letter size), scissors, graph paper (letter size), research books, water, plastic bottle, a few real paper money bills.

What can soil samples reveal...

Pieces of dirt from the soles of shoes can reveal a lot about where the person had recently been walking. Sand, loamy soil or humusy earth can all be clearly distinguished under the magnifying glass. Little pieces of grass may point to a freshly-mowed lawn. Bits of decayed leaves could come from a path through a woody area with deciduous trees, while a walk through a pine forest would be revealed by bits of pine needles. To learn how to differentiate various kinds of soil with confidence, you should first try practicing on some samples.

Analyzing soil samples



You will need:

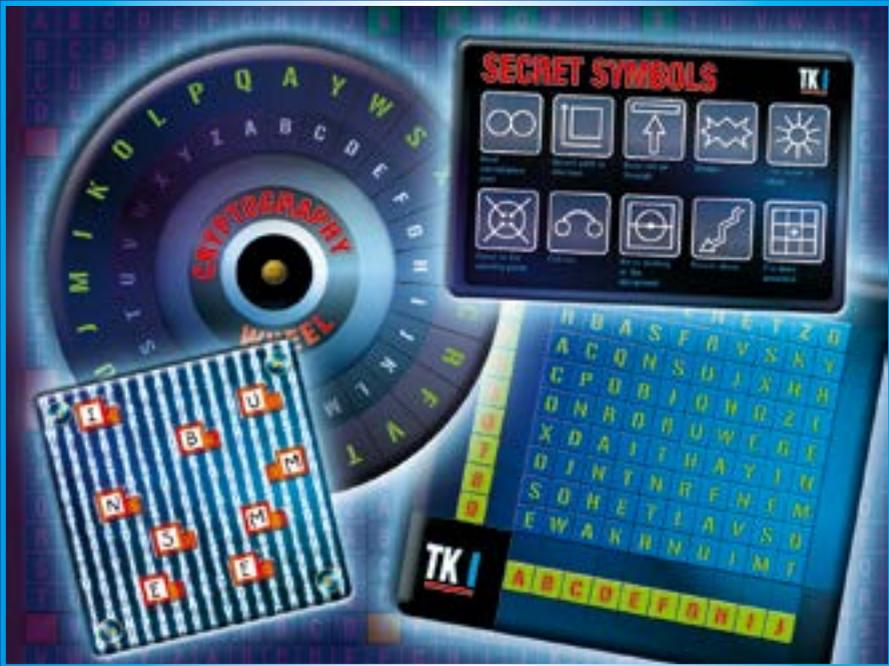
Petri dish
Forceps
Plastic bag
Magnifying lens
Evidence pad
Pencil
Water



Here's how:

1. Collect soil samples from as many different places as possible (one handful is enough) and save them in clearly labeled plastic bags.
2. For each different sample, place a little in the petri dish, break it up with the forceps, and examine it under the magnifying glass. What is its color? Do you see granules or grit? Do you recognize any plant matter, and if so what does it look like? Add a little water and watch how the soil reacts. How quickly does it dry and how does it change as it does so? That helps you estimate how long the dirt had been on the sole of the shoe.
3. Have your partner test you. Can you match the sample he or she gives you to one of the samples you collected?

Secret Codes and Messages



One of the most important skills of a detective is the ability to send and receive secret messages. You too can share secret notes with your partners which will only be decipherable by them. There are countless methods for encoding text. Here, you will learn about a few of them.

Invisible writing

An ideal kind of secret writing is one that nobody can read except someone who has the means to render it visible. Invisible inks have been around for hundreds of years. They can be made from almost any colorless liquid, such as milk or lemon juice. By heating

the paper carefully, the writing turns visible.

In your kit, though, you have something much better — an ultraviolet flashlight, which makes certain invisible inks visible, such as the ink in the invisible ink pen included in your kit.

