

Preparation

For this search you will need:

- 3-6 buckets/containers for water
- Water
- Watering can
- 3-6 containers with holes
- 2 scented articles

Begin by finding 3-6 containers that you can use as your search areas. To these you will add water and some smaller containers. Make sure that your dog can reach the top of the water containers, i.e. they must be size appropriate for your dog. In water searches, scent rises to the surface of the water. If the containers you use are too tall, the dog won't be able to access the scent as it comes to the top of the water. Or may jump into/onto the containers and spill them. While some dogs may find this great fun, others will be horrified and may even be put off from searching. I'd avoid using water bowls as the dog already has an association of what to do with them. And while some dogs do taste the water while searching, drinking bowls may cause some confusion for your dog.

For medium to large dogs, I've found buckets or those colourful flexible plastic garden tubs ideal. The garden tubs come in a variety of sizes so they are useful for all dogs. My favourite water container for small dogs are the little buckets that come out every Halloween in which children collect sweets as they go door to door.



Once you have your water buckets, think about the smaller holed containers. They need to be big enough to hold the scented article but small enough to fit into the water buckets. Ideally, each bucket should be the same and the contents of each bucket should be the same. The only difference between the buckets is that the water in one will smell of the target scent. By far I've found the most all round useful container for scentwork to be maggot boxes. These plastic tubs come in a variety of sizes and have snug lids perforated with dozens of small holes which, for our purposes, allows the scent to escape.



But you can use any small, safe, lidded containers. I've even used lidded toothbrush holders! Whatever you use, make sure they are clean. Remember to pierce holes in the lids if they don't already have any. Always pierce into the lid from the outside to the inside to prevent the dog being scratched by any jagged edges.

You can of course, use water buckets with lids (pierce holes in them), such as the plastic paint buckets found at DIY stores. However, my personal preference is to let the dog learn that they are searching water so that I can transfer the water search skills to open water searches at a later date. Hence they need to see/touch the water rather than have it covered up. But for the purposes of this particular exercise, either method is valid.

At this point you may be wondering why not just place the scented article straight into the bucket? Why put it into a container at all? If you are using edible articles, they may dissolve or deteriorate in too much water. Putting them in smaller containers which then go into the buckets usually avoids this. If you're using scented toys/non-edible articles, having one bucket with a visible article floating in it is pretty much irresistible to most dogs. You can't be sure that they are picking the article out because of the scent or just because it's the only bucket with something other than water in it.

But 'Hey!', you say, "That's easy to fix. Just put non-scented articles in each bucket except one. And in that one, you place the scented article." Let me assure you, I've tried this. I've tried lots of methods for teaching water searches and today I'm sharing the most effective and reliable one with you. For many dogs, the visual of the floating article can cause conflict. For example, my Labrador Cherry was very conflicted as she thought that if she found a toy in the water, she should retrieve it. When I discouraged this, knowing the particular toy was un-scented, she became very confused. Did I want her to retrieve toys or not? I believe that the question of the article being scented or not hadn't crossed her mind. I've also weighed the articles down so that they sit under a brick at the bottom of the bucket. But while reducing some confusion, it remained high enough for me to ditch this method.

Add the water

Now it's time to add the water. Try to ensure that every bucket has the same temperature of water, especially between the scented and unscented buckets. Scent will quickly rise to the surface in hot water, but will rise very slowly in cold water. Lukewarm water is ideal. Hot water can burn the dog (yes, it needs to be very hot, but safety is always first.) And very cold water can be off-putting and not release enough scent in these early stages of searching water. So lukewarm takes that middle ground. Fill the buckets with enough water to cover the smaller containers. The buckets don't have to be full, just high enough for your dog to be able to give the surface a sniff. Keep a watering can of water handy to top up any buckets that need it.

Next place the small containers into the buckets. These small containers will also fill with water, that's the plan. Place your scented article into one of small containers ensuring that it fills with water as you place it into the bucket. Do not forget which bucket you've placed the scented article into as this will cause major confusion and quite possibly mean that you reward/fail to reward your dog at the correct time. Leave all the buckets standing for 15 minutes to allow the scent to move through the water. The scent will begin to contaminate the water instantly, but you want to ensure that your dog has access to a decent scent picture while she's learning.

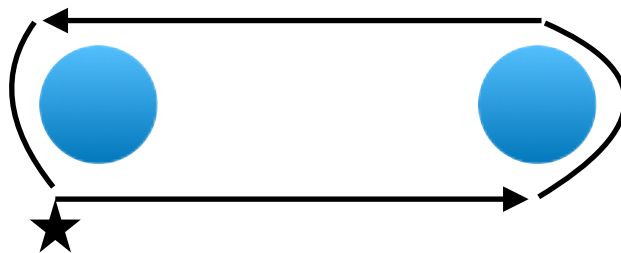


Container searches

After leaving the prepared buckets for 15 minutes, move two of the water buckets (one of which should be the one with the scented article) away from the others and set them down, around 30cm or more apart.

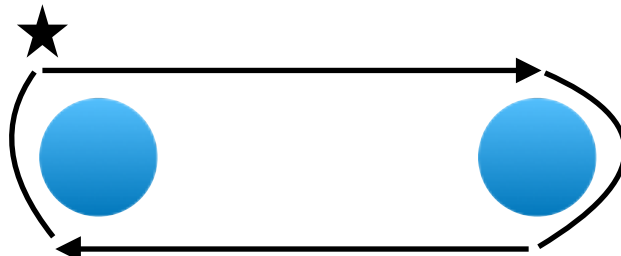


If you can get someone to help you, that is ideal, the search will be blind. Otherwise, conduct a known search but do not prompt or influence the dog to let her know which one contains the scented article. Work the dog over the two buckets, on or off lead whichever you prefer. Remember your handling skills. Walk backwards in an anticlockwise direction. Guide the dog with your right hand. Unless you're left handed, in which case you walk in a clockwise direction guiding with your left hand.



Start (right handers)

Start (left handers)



Ask the dog to sniff the water in each one - the scent rises to the surface of the water so they only need to sniff the top. You might find that your dog is confused and tries to search around rather than in the buckets. But that's understandable. You can do a quick free search by walking around both buckets. Then ask her to search each one more carefully (directed search.)

As ever, when you see an indication, step back and ask the question. Bear in mind that the indication may not be as strong as you are used to seeing as this is such a different type of search than the ones she is used to. When you think you spot the indication and have followed the normal routine, confirm to the dog that she's right by reaching in and opening the small container to reveal the article/cheese. The dog can then take the scented article and enjoy the reward. If the dog isn't sure or indicates on the wrong bucket, work her on, helping her to sniff into the water by disturbing the surface with your fingers. She may move to the next bucket and then want to go back to the previous one. Always allow her to do this. She may be comparing the scent in each of the buckets. Or having a think before returning to the target scent. My Jack Russell Terrier used to blow bubbles into the water when she first started water searches. So whichever way your dog searches and indicates, lots of support and encouragement will help her achieve success with these new searches.

Rewards

Some dogs do not find playing with a water logged article rewarding. For example, my water loving terrier Ella finds play with soggy mice most unedifying despite water retrieves being one of her favourite activities. For dogs like Ella, when she retrieves the soggy mouse from the water, I swap it for a dry scented article with which she can tug, toss and parade - a much more rewarding prospect than a sodden mouse.

If your dog doesn't want to touch the wet mouse at all, you can reward her for indicating on the correct bucket by tossing a scented mouse beside that bucket for her to play with.

The same applies to dogs searching for edible articles. Instead of giving her the soggy cheese or whatever you've placed inside the container, reward her by tossing a piece of her target food beside the bucket. Or if she can catch, directly to her. (You can learn how to teach your dog to catch on my Support Skills course)

Follow on searches

Once your dog has successfully located the first find, set the search up again. Always place the article in the same container inside the same bucket of water as the first find. This water is now contaminated with the scent. Therefore, if you use it in the next search *without* the article this will cause confusion. Swap the positions of the two buckets and search again.

If your dog is happy with finding the article in one of the two buckets you can begin to increase the number of buckets in the search. Keep adding one more bucket to the line, ensuring that the scented bucket is always in a different spot. Dogs notice and learn routines much faster than us, so if you always place the scented bucket at position 2 in the line up, your dog is likely to go straight there without searching the other buckets at all.

Don't overdo it. You want your dog to be able to search for and correctly locate the target scent. She needs to do this multiple times to test the water (!) and ensure she's confident with the task. But you don't want to repeat it so often that she gets mentally tired. This can lead to confusion and uncertainty. Instead, stop after about 5 searches providing the final search was a good one, i.e. she was clear and confident. Don't fall into the trap of just one more, or keep going until you get the perfect search. Remember that you can always fall back to a previously successful step in order to end on a high. The easiest way to do this is to reduce the number of buckets.

Once your dog understands water searches, you can incorporate them into other searches. For example, if you're searching a paddock or garden, you could place buckets of water around the area. You could put one in each corner. Or one under a bush, another behind a plant pot, etc. And then, just as you would with boxes or any other potential hides, place a scented article in one or some of the watery hides.

If you've an old sandpit or paddling pool, you can fill it with water. Then add a variety of containers and objects. This let's your dog have a paddle, if she so desires, or a bigger watery search without having to leave your garden.



Open water searches

These work on exactly the same principal as the container searches. But there are some additional factors to take into account. The first is that your dog is likely to have to get her paws wet. If your dog does not like going into water, you will need to ensure that the finds are accessible from the river bank or beach shore. You could hide the article in the reeds by the side of the river. Or in a rockpool at the beach. Be creative when setting up your searches to make sure your dog is having a good time.

The other factor is movement. The very nature of water means that movement is an integral part of water searches. Yes, the scent will come to the surface of the water, but it might not stay there for long. It might get swept downstream. But, and I was amazed to discover this, it can stay in one spot for a surprisingly long time.

I set up a search where I placed a scented mouse under some seaweed in the water beside a stone jetty. The search location was a tidal loch and as we were searching the tide was coming in. The dog found the article. Time passed between playing with the article and resetting the search, meaning that the tide was getting closer to the shore. However, when the next dog came to do her search, not only did she locate the new find, but she indicated on the site of the previous dog's find. This was despite the movement of the water which you might assume would have washed the scent away and/or moved it from the hide location.

The lesson here is very much to trust your dog. Even if she's indicating away from the hide, she may be telling you where the scent has moved to or where it was before. This is just the same as she might if she hit the scent in the air. In both circumstances, support the dog and encourage her to trace it back to the source. And never discount residual scent. Even when we think it's gone, the dog is the only one who can confirm the presence of scent or not.

Handling tips

Working in and around water comes with its own risks. You will have identified these during your safety check before you even brought your dog down to the search area. But there are additional steps you can take to keep yourself safe.

While I generally advocate walking backwards as you search (this allows you to always observe your dog even when you're both moving), I do **not** recommend this during open water searches. Instead, walk sideways if you can. Or if it's safer, alongside your dog. The ground may be uneven. You may be working across pebbles, stones or tufts of greenery. Even sand isn't risk free. There may be dips and pools that you wouldn't see if you were walking backwards. Also, the terrain may be slippery. Avoid stepping on seaweed, watch out for algae, driftwood and (sadly) rubbish. If you are working on a jetty or the like, take great care not to accidentally step off. And watch out for hardware such as hooks, metal fixings and rope.

Starter searches

You can start just by dropping a scented article into the shallow water and asking your dog to 'find it'. As with most novel searches, she might be surprised by your request. Never having found her target scent in such a location she won't be expecting it to be there. However, a fast find will quickly alert her to this new search zone.

Follow this first find up with a second slightly more difficult search. Anchor the article just under the water with a rock or under seaweed or whatever is available to you. Ask the dog to free search and then conduct a directed search within the area you have designated to be the search area. Your dog won't know where the boundaries lie, but you will. This will help her use her energy, physical and mental, in areas where she will find the article rather than wasting it by searching outside.

As with the container searches, you can place the scented article inside a small container. You'll definitely need to do this with edible articles. And like you did with the container searches, you can reward your dog for successfully locating the target scent by tossing her a dry scented toy or a piece of the edible find, e.g. pieces of cheese. If your dog is happy to retrieve the soggy article, ask her to bring it to you and then swap for the dry article. As ever, play away from the search area. And make sure you both play safely.

And I know this might seem daft, but do have a bowl of water on hand for your dog. You might be searching in salt water. Or your dog might now want to drink from the pond, river, loch, stream, etc. So always have fresh water available for her post searching.

Increasing the challenge

You can increase the challenge by increasing the search duration and reducing the scent picture, just as you'd do with land based searches. Put out multiple finds; extend the search area; bury the article in the sand under water or under a pile of pebbles or rocks; change the material of the article; change the size; wrap it in layers of cloth; or place it inside containers. So many options!

Do take into consideration that these searches are more physically demanding. Observe your dog, watch out for signs of tiredness and act accordingly. Give lots of breaks between searches where she can properly rest.

The ultimate water search is when the dog is swimming. These searches are difficult and may well be a step too far. But if you want to try it, place the scented article in a safe area, such as a pond. Weigh it down so that it doesn't float away and ideally sits just under the surface of the water. You can use a kettle bell as the weight. Tie your article to it making sure the cord is long enough for your dog to grab the article and swim to shore with it. I also recommend attaching a second cord to the kettle bell or weight so that you can pull it out when you're ready. As you can see, this does take planning. Practise without your dog to see if your method works.

Send your experienced, confident (both in searching and swimming) dog out into the water to 'find it'. Move left or right to help support her from the land. This is free search. And as ever, the direction that you move can help suggest a direction for your dog to take. If this helps her locate the find, she will be more likely to take your direction suggestion in future searches.

Finally, you may be aware of dogs who search from boats. This is done very successfully by professional dogs working to find a variety of targets including whale scat, cadavers and evidence. You must be extra vigilant about safety if you are working from a boat. Lifejackets are a must for dog and handler. Instead of the dog searching from the shore the dog searches from the boat. As this requires a passive indication (often barking) and is potentially riskier than the other water searches, I'm just going to leave it there. But I wanted to mention it as it's the method used by most professional water search teams.

Frozen water

Following on from the water searches, I thought we could take things a step further. Let's see how your dog makes of frozen finds!

For this search you will need:

6 plastic containers, such as ice cream or 'take away' containers (make sure they are clean)

If you have limited freezer space, use 4 instead of 6 or use smaller containers

Water

Scent

Fill all but one of the containers with equal amounts of water, then freeze. The remaining container should be a third filled, then frozen. Once frozen, you can place your target scent [a small sachet (e.g. 2g) of non-edible scent) or a cube (around 5cm) of edible scent] in the middle of the container on top of the frozen water. Then add a little water, just enough to stick the scent in the middle of the block. Freeze that. Finally, top up the container so that you completely cover the scent with water and then freeze again. This should ensure that the scented item doesn't float to the top but stays in the middle of the frozen block.

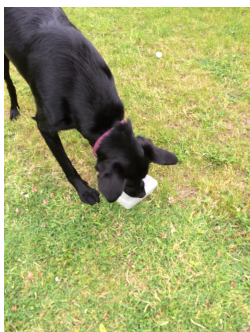
Now, you need to plan the next bit so that the blocks don't melt before you're ready to start searching. The idea is to place all the frozen blocks of ice (decanted from their containers) in a pattern on the ground, about 30cms/1ft apart. You can lay them in a long row or in a circle. But make sure you place them in a way that will allow the search to flow from block. Ask your dog to search the ice blocks. Repeat the search every 15 minutes until your dog indicates on the correct block. When your dog does find the correct block, you can reward her by tossing a scented item at the block for her to play with/eat.

Take a note of how soon after the ice blocks are removed from the freezer that your dog indicates on the scent. She might just surprise you!



Results

I set this search as a challenge to some of my clients and I thought you might find their results interesting.



Here's how it went for Rachel and Skye:

"She indicated and tried to get the catnip sachet out of the ice on the fourth attempt, so 45 min after they had gone into the garden. I'm pretty sure she was suspicious that there was something about the correct block after the second go but wasn't confident enough to pursue it until it had melted a bit more."

Wendy and Moby had similar results, " he was pushing the blocks around but not giving a clear indication that I could see. I think he got confused by the ice melting and enlarging the scent picture. Got a fairly clear indication on the 3rd attempt in a new position. My older boy, Winnie, however, tasted each block and made his decision on the first try - 1min 29sec!"

Steve reported that "Malin found it quite easy to do so I changed the challenge slightly - rearranged the ice blocks and some were buried under the shingle. This still did not stop him indicating on the right one - going to have to up the challenge level for him!"



I loved Anthony's detailed reporting of how Dottie got on: T00:00 - dry direct sun temp 25c - no indication, T00:15 dry direct sun temp 25c - no indication, T00:30 dry overcast temp 21c - no indication, T00:45 dry overcast temp 21c - indication.

Jayne worked two dogs, Snoopy and Jasper, both of them giving strong indications on the solid blocks of ice first time out.

And Maria and Chevy reported this ". Chevy did well with the ice challenge, she showed interest in the correct block of ice to start with but came away with me when I asked the question, only to go back later and give a good indication." I have seen this happen many times before when dogs have been presented with novel hides. It appears to me that they recognise the scent but are unsure how to access or indicate confidently on it. They move away only to return soon after to give a solid indication. This short period of 'thinking time' appears to allow the dog to process the information and come back with a positive decision, confident that they are indicating on the correct scent.



So from the results there seems to be a split, with some dogs finding it immediately and others waiting until the 45 minute mark. One observation that I'd make is that the dogs who found it immediately had much more experienced handlers, and were more experienced themselves. But the dogs who waited were willing to search the blocks multiple times before finding their prize, taking a leap of faith in their handlers that they would find something rewarding in those frozen hides. Ultimately, all the teams worked to their own skill level and all were successful. I hope you and your dog find similar success with this ice cold search.

I thought you might be interested in a very recent (Feb 2021) study that looked at detection dogs' reactions to target scents presented in different forms, including frozen. You can download the study below.

Other liquids

This time let's see how your dog reacts to different liquids. Does she find any difference between the different fluids (viscosity, odour) and do they affect her performance?

Dogs who already know how to do the water searches will have much more experience in this type of search. Therefore, I recommend doing the water searches before doing this fluids search.

For this search you will need:

9 small buckets/containers with lids, put 10 holes in each lid 4 scented articles
3 liquids - I used 1.5litres sunflower oil, 1.5litres almond 'milk' and white vinegar diluted in 1.5litres water. You can use anything that you think would give variety, but it must be safe for your dog.

Pour ½ litre of sunflower oil into each of three containers, ½ litre of almond milk into the next three containers and in the final 3, ½ litre of water plus a capful of the vinegar. You should now have 9 filled containers, 3 for every liquid. This could be messy, both for your search area and for the dog, hence the use of containers with lids. Plus you don't want your dog accessing the liquids directly, e.g. seeing or tasting them, as this could distract her from the goal of locating her target scent.

Next add the scented article. Place one into one container of each liquid. You'll end up with 1 sunflower oil, 1 almond oil and 1 vinegar water each with their own scented article. So that you don't forget which containers have the finds, make sure to mark each one with a pen. If you have a helper, they can either place them out for you and remember which is which, or they can add marks so that only they know which ones contain the target scent. Put the lids on so that if the dog accidentally knocks them over, they won't spill, especially the oil. This also stops the handler from seeing which liquid is in which container. Now place the containers in a circle or a line, about 30 cm apart.

To stop your dog from searching anything else in the area, I advise working your dog on lead for this search. But if you are both happier working off lead, then that's fine too. Work your dog along or around the containers, letting her have a good sniff at each one. As with the water searches, when you see an indication, step back as you ask the question. If the dog stays at the bucket, and it is one that contains a find, toss a scented toy/cheese (depending on what they are searching for) onto the bucket for your dog to retrieve. You will not want to play with articles soaked in these liquids, way too messy, and, especially in the case of finding cheese in the vinegar and water mix, the finds may taste strange or unpleasant. After a short game/food rewards, remove that bucket and resume searching the remaining containers. Don't go over the containers more than 4 times: twice on a free search and then twice on a directed where they really sniff each container. If you've reached that limit, have a break. Then if you think your dog might be successful second time around now that the target scent has been in the containers for longer, give it another try.

Each time your dog indicates correctly, stop, enjoy the game and then start again. If your dog does not indicate on any of the containers, it may be that this challenge was too tricky. In that case, step away, place a find on or around one of the containers and start searching again so that your dog gets an easy find for trying so hard.

Results

As with the ice block searches, my clients and I had fun with this unusual search. I was pleasantly surprised by the dogs' performances. Most were happy to give the containers a sniff and many gave strong, confident indications on the correct containers. Apart from one who was reluctant to search the vinegar and water containers, all the other dogs (15) who tried out this search seemed to show no bias for or against the various fluids. Except for the dogs searching for cheese in the

almond milk. This was an interesting one as despite being described as milk, is not milk at all. It's mostly just water blended with almonds. Therefore has little in common with cheese as it's not dairy, i.e. the cheese scent should still be distinct. But for some reason the dogs who had cheese as their target scent did show a preference for the almond milk. However, this did not prevent them from indicating on the target scent. Very interesting exercise.

You can see that this search is open to all sorts of (safe) liquids. Give it a try, let me know how you adapted it and how you got on!