



AKC Buried Elements (sand and water)

The Buried element of AKC Scent Work is a competition where dogs find a hidden odor that has been buried in a small container in sand or soil. The competition simulates a detection dog's work, such as finding human remains.

Periodically, I hear people say “well, buried is just another type of container.” While it might look that way to us, (the nose-blind) in reality, the buried element is way more complicated than that. AKC buried hides are a specific element in AKC Scent Work where dogs search for a target scent hidden under a layer of substrate like sand or water. The hides are placed in containers, and the dog must indicate the location of the scent by alerting its handler. These searches are more challenging because the substrate prevents the dog from getting physically close to the hide with its nose.

How buried hides work

- The target scent is hidden inside a vessel, such as a scent tin, which is then buried under a layer of sand or water.
- The scent tin is placed in a larger container, like a plastic bin, and is covered by at least five inches of sand or soil. In some cases, particularly in advanced levels, water can be used instead of sand.
- There may be, and often are, distractions present in the search area.
- The search area for buried hides can be a variety of environments, both indoors and outdoors, with the containers placed on the ground.
- The dog has a limited amount of time to find all the hides in a trial setting. The time stops once the handler calls out "Finish" after the dog has alerted them to each of the finds.

How the competition works

- **Novice Class:** uses six containers filled with sand or soil. One container holds the target scent buried two inches deep. The handler has two minutes to find the hide. Birch is the odor used in novice class.
- **Advanced Class:** The number of containers increases to eight, and the target scent can be Birch, Anise, or both. The hides are buried four inches deep, and a non-buried distraction is added to the search area. Teams have three minutes to find the hides.
- **Excellent and Master Classes:** These classes move outdoors and add complexity by requiring searches in sand and/or water. Empty scent vessels are also buried to prevent dogs and handlers from being cued by disturbed ground. Details of the excellent and master class can be found at the end of this document.

In containers, the odor escapes through seams and gaps, and depending on the material the container is constructed of, some of it is absorbed. The odor is inaccessible (the dog cannot reach it with his/her nose) and there is *much less* odor available. In the buried element, the odor is also inaccessible. Not only can the dogs NOT touch the vessel with their nose, they are also prevented from getting close to it by the substrate that covers it—the sand or water. However, unlike container hides, there is lots of odor available, and it is very, very active. This explains why the dogs work the edge of the bins as that is often where the odor is most accessible to them. And when the odor moves, it also clings to the sides of the cold bins. This is why the dogs have to do a bit of comparison sniffing before choosing the bin that contains the source, and this is also why the vast majority of false alerts occur on the bin next to the hot one.

With sand, it's advisable to let the box sit and age a bit to make the odor more available. The aging time depends on the ambient conditions (temperature, humidity, barometric pressure) and the size of the container. A smaller container will not need much aging at all.

The time you allow it to age depends on the experience level of the dog. A very experienced dog will usually be able to find the odor in a variety of conditions. An inexperienced dog will struggle with conditions that they have not encountered, such as heat, cold, extreme wind, very wet set vs. very dry sand.

As part of the learning process, some dogs will go back to a previously found hide so that they can work from it. This helps them untangle the overlapping odors and figure out where all the hides are. This can be frustrating, however let the process unfold, but it is an important part of their problem solving and learning.

Training for buried hides is often avoided by scent teams as it seems difficult. However, whenever I have worked with pups on this element I am always surprised at how quickly they pick up the concept and excel at this type of search.

The buried container setup is a bit more involved than using standard boxes or containers, however after your initial set up and preparation you can store the buried bins with sand, mulch, or dirt in them and simply toss the water in the water bins and then they are ready for storage. Make sure to toss the water used with your hot bin somewhere the dog does not have access to. Don't toss it out the back door and then let the dog out to potty in the same area, but rather go to an outdoor area the dog does not use or pour it down the drain.

Use identical, lidless containers, such as plastic storage bins with a grate placed over the box to keep the dog from accessing the source directly. A good choice for bins with grates that fit over them nicely can be found on Amazon. With these bins you can set the lid aside and then snap the grate on with the handles on the bin to make it secure as they are perfectly sized for each other.

Grates <https://a.co/d/01980qeb>

Bins <https://a.co/d/0d2VeKSr>

Tubing <https://a.co/d/0auu917a>

Suction cups <https://a.co/d/0auu917a>

Start with sand, as it is easier to work with than soil and less messy than water for beginners. Make sure your sand is reasonably clean and there are no distracting odors in it (vegetation/animal matter) and that it all comes from the same area. I prefer to purchase sandbox sand or aquarium sand to fill the boxes as they will all have the same odor profile and are free from contaminants

Make sure to place the odor source (swab with oil) in a protective vessel like a tin, mesh tea ball, or short piece of aquarium tubing to prevent the dog from digging it out should they knock the grate off the container.

Training for Buried Hides

- Begin by placing the scent vessel either on top of the sand or just slightly buried. Use only one container with a hide to make it easy for your dog to succeed.
- To prevent the dog from pawing or digging, reward them immediately and enthusiastically as soon as they indicate the correct container. There can be a level of frustration initially for some dogs as this is a hide that they cannot get as close to. Rewarding quickly teaches them that an alert gets a reward and stops them before they try to dig to get closer.
- As your dog's understanding increases, gradually increase the depth of the hide, working up to the standard depth of 2 to 4 inches.
- Once your dog can find a single buried hide consistently, add in a new blank container with just sand. Gradually increase the number of blank containers, keeping them well-separated at first to prevent the merging of scent plumes. Sand is very good at absorbing odor so keep the boxes about 4-6 feet apart.
- As your dog gains confidence, practice with different container configurations (e.g., rows, circles).
- Odor behaves differently based on temperature and wind, so practice both indoors and outdoors to prepare your dog for varying conditions.

Training for Water Hides

Water hides are set up in the same manner as buried hides, the only difference is water instead of sand and the Q-tip is contained in a piece of aquarium tubing which will be stuck on the side of the box or on the bottom of the box, depending on the level of difficulty you are working at.

Remember that your dog is searching for evaporated oil molecules. When we are using a bin to hide the source the oil will spread out on the surface of the water, evaporation will happen dictated by the conditions around the search area, and thus the odor is often very available to the dog but does require a bit of problem solving to figure out as it is a slightly different presentation from the dog's perspective. From a science perspective, remember the water offers a greater surface area than a Q-tip in a tin in a box and evaporation only happens on the surface, whether it is your oil bottle or a plastic box.

- Begin by placing the scent vessel either on the inside of the box or just slightly above the water line. Use only one container with a hide to make it easy for your dog to succeed.
- To prevent the dog from pawing or digging, reward them immediately and with a lot of celebration as soon as they indicate the correct container. There can be a level of frustration initially for some dogs as this is a hide that they cannot get as close to. Rewarding quickly teaches them that an alert gets a reward and stops them before they try to dig to get closer.
- As your dog's understanding increases, gradually increase the depth of the hide, working up to the standard depth of 2 to 4 inches. Move the suction cup down the side of the container until it is on the bottom of the container.

- Once your dog can find a single buried hide consistently, add in a new blank container with just water. Gradually increase the number of blank containers, keeping them well-separated at first to prevent the merging of scent plumes. Set them up the same way you did the sand hides.
- As your dog gains confidence, practice with different container configurations (e.g., rows, circles).
- Odor behaves differently based on temperature and wind, so practice both indoors and outdoors to prepare your dog for varying conditions.
- If your water is very hard or very chemically treated consider using distilled or spring water for your set up to avoid the dog pairing the unusual odor of the water with the hide. This could be problematic down the road in a class or trial if the water you train with is heavily laden with minerals or chemicals.

Troubleshooting common buried hide problems

- When a dog alerts on an empty container it can be because of the odor drift. This is referred to as fringe behavior. To correct this, increase the distance between containers in your practice sessions to make it easier for the dog to locate the precise source. Fringe behavior can happen when the dog is overwhelmed or you've moved their training forward too quickly, however it is most common in new dogs who don't know how to work toward the strongest strength of the odor.
- Some dogs may be hesitant to work a buried hide due to a lower comfort or confidence level. Start with very simple hides where the odor is more accessible and mark, reward, and play. You can also temporarily remove any protective grates to help the dog get their nose closer to the source, however be careful they aren't digging in the box. When it comes to water hides DO NOT work without the grate as you are using oil that will float on the water and we don't want the dog to drink the water.
- As with all our practice sessions, colder temperatures can reduce odor availability, more so with some oils than others. This can frustrate some dogs as they struggle to sort the problem out. Practice in different weather conditions to teach your dog to work with less available odor and in variable weather conditions.

Containers for ground hides

In the Excellent and Master levels of AKC Scent Work, buried hides can be placed directly in the ground in an outdoor area. The search is conducted in the open, and the scent vessel is buried in the soil itself. Empty scent vessels are often buried as distractors. While the hide is in the ground, the target odor is still contained in a small, porous vessel like a scent probe or geo cache box to prevent contamination. Training for these levels requires developing the dog's ability to scent through substrate, often aided by specific training tools to build confidence in finding odors not in traditional containers.

Master level challenges include more complex, deeper, or unconventional hides using birch, anise, clove, and/or cypress.

- [AKC Scent Work Buried Division](#) (Excellent/Master):
 - Hide Types: Transition from buried containers (Novice/Advanced) to direct soil or sand, requiring nose-on-the-ground training. Odor is 4" deep in the substrate.
 - Odors Used: Birch, Anise, Clove (Excellent), and additionally Cypress (Master).
 - Excellent Specifics: 3 hides, 4-minute time limit, 12 containers (6 sand/6 water with grates). The search area is a 300-400 sq ft area. buried 2 to 12 inches deep in sand/dirt.
 - Master Specifics: Increased difficulty in substrate search and, often, more hidden containers. Master includes up to 4 hidden odors in 16 containers (8 sand, 8 water) The search area is a 400-500 sq ft area. Both use grates for safety. 5-minute search time.