8. Diving Skills

- Health and fitness are important. Illnesses, required medications, and recent operations probably disqualify you for diving. If your health is not normal, consult a diving physician. If there is any doubt about your physical condition, refrain from diving until you are in good health. If you are prone to motion sickness, take steps to try to prevent it.

- Climate is a big factor affecting dive planning. If you dive close to where you live, dive planning is easier than if you intend to dive thousands of miles away. A difference in climate usually means a big difference in diving conditions, which means a difference in your equipment requirements.

Reference: Graver, D. K. (2016). Scuba Diving 5th Edition. Human Kinetics.

- The distance you travel to a diving destination affects your planning. If you travel far to reach the destination, allow a day to rest and recover from travel before you dive. After even one day of repetitive diving, wait one full day before flying home.
- Weather affects diving conditions significantly. Storms and sudden changes in the weather can make diving dangerous. Know the weather forecast, and reschedule your dive if poor weather is predicted. Know the expected wind speed, air temperature, and water conditions.

Reference: Graver, D. K. (2016). Scuba Diving 5th Edition. Human Kinetics.

Why? Determine the objective of the dive. What do you want to do? Take photos? Explore? Look for artifacts?

Who? Determine with whom you want to dive. Select a buddy who is interested in your dive objective.

Where? Determine a primary and an alternative site. If conditions at the primary site are unfavorable, go to the alternate site.

When? Determine the best time to dive. The water at most areas is usually calmer in the morning than it is in the afternoon. Tidal currents and height may affect the best time to dive.

How? Decide how to reach the dive site. Who will drive? What are the directions?

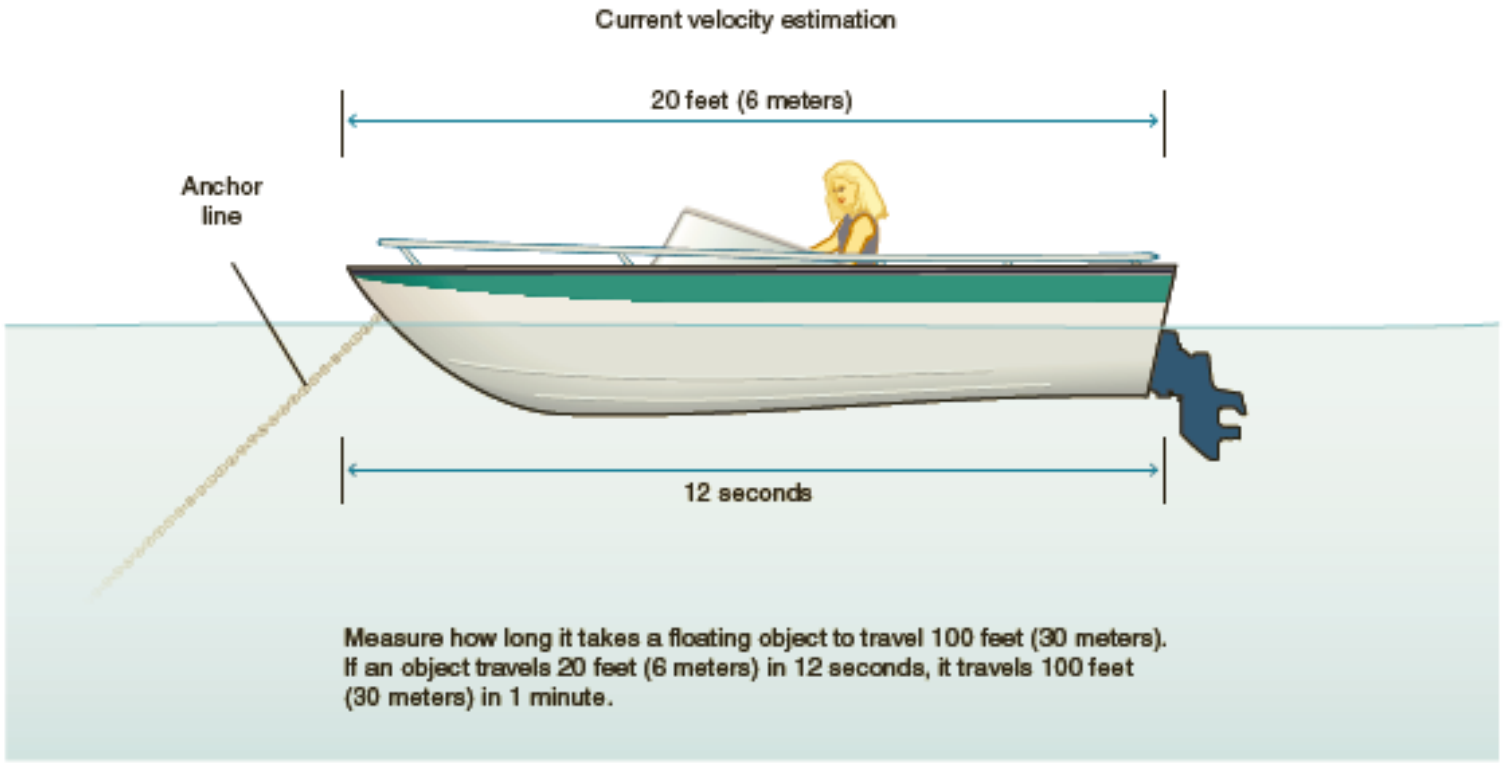
What? Determine what equipment is needed for the dive. Who will bring the float and flag? How many tanks do you need? Are there any special needs for the intended activity?

Reference: Graver, D. K. (2016). Scuba Diving 5th Edition. Human Kinetics.

Advance preparation can include

- making reservations,
- paying deposits,
- buying or renting equipment,
- having equipment serviced or repaired,
- getting tanks filled,
- obtaining a fishing license or permit,
- preparing equipment for photography, and
- obtaining emergency contact information.

Reference: Graver, D. K. (2016). Scuba Diving 5th Edition. Human Kinetics.



Reference: Graver, D. K. (2016). Scuba Diving 5th Edition. Human Kinetics.

Current velocity table
(time to travel 100 feet or 30 meters)

Time (seconds)	Speed (knots)	Time (seconds)	Speed (knots)
5	12.0	95	0.62
10	6.0	100	0.59
20	3.0	110	0.54
30	2.0	120	0.49
40	1.5	130	0.46
50	1.2	140	0.42
60	1.0	150	0.39
70	0.84	160	0.37
80	0.74	170	0.35
90	0.66	180	0.33

Reference: Graver, D. K. (2016). Scuba Diving 5th Edition. Human Kinetics.

You should recognize the importance of learning about a dive site before diving there. Because orientation is vital and because you want to be a responsible diver, you need to learn how to obtain orientations. Area orientations can be formal or informal. A formal orientation is provided as a service by a diving professional. The professional will tell you what to look for and what to look out for in the area and will lead you on a dive. A professional dive guide provides suggestions and points out items of interest and potential hazards. When you have completed a formal orientation, ask the professional to sign and stamp your logbook. A continuing education dive course is another excellent form of formal orientation to a new area.

Reference: Graver, D. K. (2016). Scuba Diving 5th Edition. Human Kinetics.

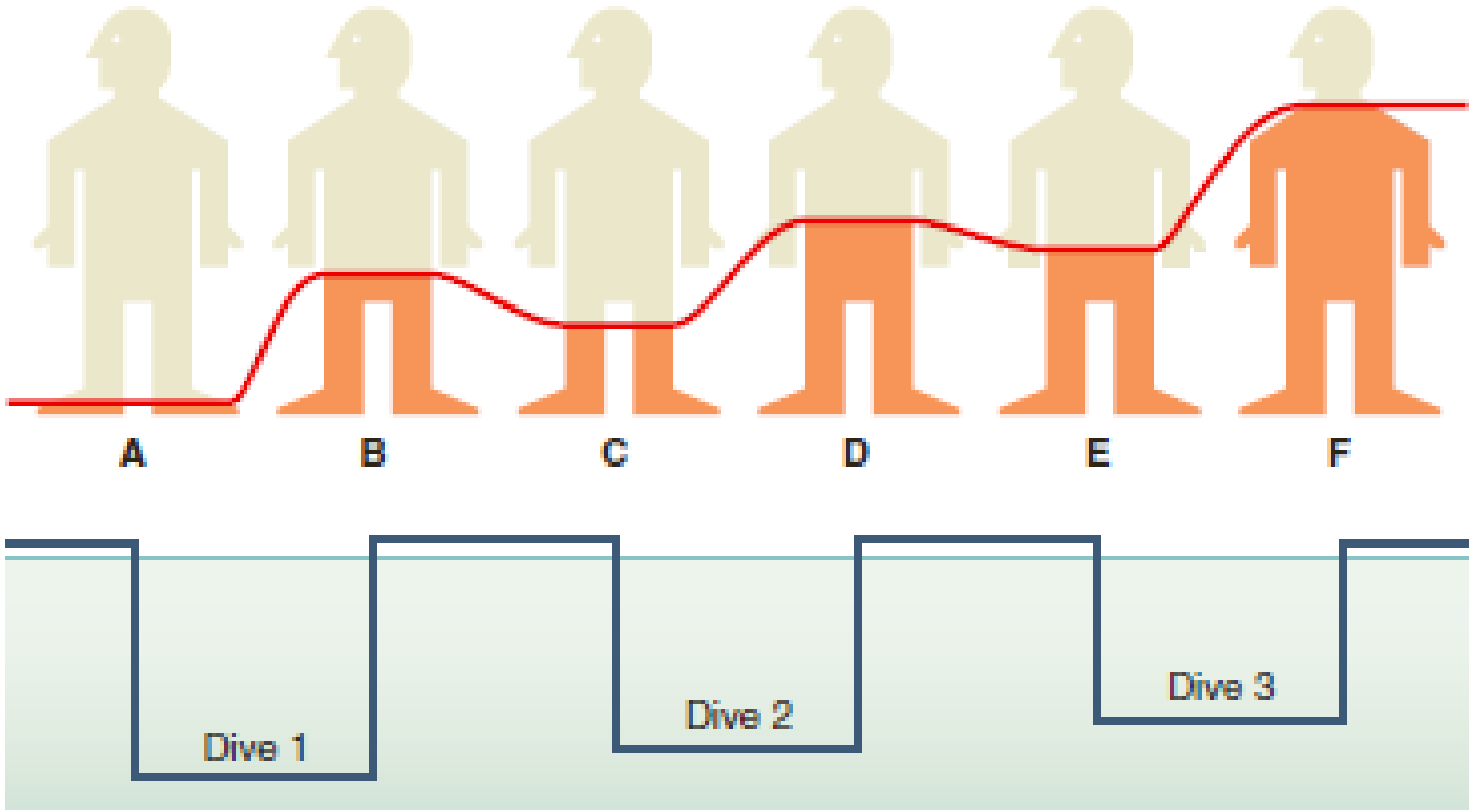
- Read books, articles, and brochures about diving in the area. Learn as much about an area as you can before you go there.
- Write to dive stores in the region where you intend to dive. Ask if you can participate in a dive class session for your orientation to the area.
- Write to dive clubs in a region where you intend to dive. Ask if you can participate in a club-sponsored dive when you are in the area. Ask for contact information for several club members who dive regularly and may be willing to allow you to go diving with them.
- When you arrive in a new area, find local dive sites and visit them when divers are likely to be there. Ask the divers about the sites while they are preparing to dive or after they exit from a dive. If you have your equipment ready, you may be able to accompany them on a dive. Make sure they have experience in diving at the site.

Reference: Graver, D. K. (2016). Scuba Diving 5th Edition. Human Kinetics.

Having reviewed dive accident reports for many years, I have found that failure to adequately plan or to carry out the plan for a dive is a common cause of accidents and injuries. I have been able to avoid serious injury during decades of diving. However, I have had some bad experiences. These experiences occurred when I failed to plan adequately, when I attempted activities without first completing training for the activity, or when I did not have adequate knowledge of a new dive site.

I dived from shore in California on a beach with a steep incline without taking the time to research the dive. I was used to donning my fins, wading into the water, and swimming beneath the oncoming waves. When I attempted this procedure on this type of beach, I found that there was a trough created by plunging waves, and that the trough was a dropoff. The trough is also where the waves break suddenly and violently. As I waded into the water, I lost my footing at the trough at the same time that a large breaker suddenly formed and pounded me into the trough. I managed to kick past the trough before the next wave hit, but I was humbled by the experience. A key part of dive planning is to understand the terrain and learn the local procedures. After the dive, I watched a local diver literally run into the water after a wave broke, jump over the trough, turn onto his back, pull on one fin, and kick beyond the area where the waves broke. I have used that technique on steep beaches ever since that day when the plunging surf taught me a lesson. Avoid surprises that could be dangerous by learning about any new location before diving there.

Reference: Graver, D. K. (2016). Scuba Diving 5th Edition. Human Kinetics.



A—Normal amount of nitrogen in body

B—Amount of nitrogen in body after first dive

C—Amount of nitrogen in body after first surface interval

D—Amount of nitrogen in body after second dive

E—Amount of nitrogen in body after second surface interval

F—Amount of nitrogen after third dive

Reference: Graver, D. K. (2016). Scuba Diving 5th Edition. Human Kinetics.