MEETING PLANS & IDEAS: SCUBA DIVING

OBJECTIVES
This month’s activities should:

- Demonstrate that scuba diving can be fun and exciting.
- Teach Scouts about scuba equipment.
- Help Scouts understand the hazards and risks of scuba diving.
- Teach Scouts about compressed gas and how nitrogen builds up in the human body.
- Inspire Scouts to help protect the underwater environment.

LEADERSHIP PLANNING
As a leadership team, you may want to discuss the following items when choosing scuba as your program feature during your planning meetings.

- Are any of our youth scuba-certified?
- Which scuba shop and instructor should we use?
- Who will contact them?
- What costs are involved?
- Are we going to have a fundraiser to assist with costs?
- Where are we going to do our dives?
- What changes should we make to the sample meeting plans that would fit our needs better?

PREOPENING IDEAS
Preopening Ideas on Troop Program Resources

- Show introductory diving videos from YouTube, such as “PADI Go Dive” from the PADI channel.
- Set up a show-and-tell of dive equipment. As Scouts arrive, test their knowledge of equipment based on what they learned last week.
- Show YouTube videos of especially scenic or challenging dives. A good example is the “tuna tornado” video.
- Set up a slideshow of underwater photos and/or create a display of diving maps, brochures, books, etc.

OPENING IDEAS
Opening Ideas on Troop Program Resources

GROUP INSTRUCTION IDEAS
Introduction to Scuba Diving

- Have a certified scuba professional show an introductory scuba video. Review medical requirements for scuba diving. (Those who cannot meet the physical requirements to dive can still participate in weekly meetings. While they will not be able to get into the water, they can still learn about scuba from the classroom sessions.)

Pressure—The Force of Water

- Teach about nitrogen and how it builds up while diving.
- Discuss the dangers of decompression sickness, nitrogen narcosis, and oxygen toxicity.
- Demonstrate dive tables.
- Discuss what dive computers do and how they work.

Buoyancy

- Explain the following scuba skills: mask clearing, regulator recovery, and weight belt donning and removal.

Exploring the Underwater World

- Teach common hand signals in scuba.
- Discuss what fish are in the area where you will be diving.
- Discuss Project AWARE.

SKILLS INSTRUCTION IDEAS

Introduction to Scuba Diving

- Discuss and demonstrate masks, snorkels, fins, exposure suits, scuba cylinders, regulators, buoyancy control devices, and weight systems

- Review the above information and practice equipment care and maintenance.

- Review the above information and discuss scooters, rebreathers, technical diving, dry suits, and night diving.

Pressure—The Force of Water

- Have Scouts use a dive table to plan a dive.

- Have Scouts use dive tables to plan two or more consecutive dives.

- Teach Scouts to use an electronic recreational dive planner (such as the PADI Dive Computer) for multilevel dive planning.

Buoyancy
• On dry land, practice the following skills: ear equalization, clearing mask, and regulator recovery.

• Review the above skills, and teach alternate air source assist.

• Review the above skills, practice compass skills, and use steps to represent kick cycles.

**Exploring the Underwater World**

• Practice basic hand signals, and learn fish identification.

• Review the above skills. Discuss other ways to communicate under water, and practice communicating using a slate.

• Review the above skills, and discuss underwater photography, including how to approach fish.

**BREAKOUT GROUP IDEAS**

**Getting Ready for the Main Event**

• Menu Planning
• Duty Roster Planning
• Equipment check

**Preparation for the meeting’s game or challenge**

**GAME AND CHALLENGE IDEAS**

*[Library of Games and Challenges on Troop Program Resources]*

• **Scuba Gear Relay**
  - **Materials:** A complete set of scuba gear for each group. A set of cards listing each piece of equipment. Space to run a relay race.
  - **Method:** Place all the gear at one end of the room, and have the groups line up at the other end. Shuffle the gear cards. When told to go, one player from each team turns over the top card and then races across the room to get that piece of equipment. If he returns with the wrong piece, he has to go back and get the right piece. The next player then turns over the next card and repeats the process. The relay continues until all the equipment has been retrieved.
  - **Scoring:** The first group to finish the task wins.
  - **Notes:** To reinforce the correct use of equipment, have each group properly lay out the equipment as if it were on a diver.
  - **Variation:** One Scout put on all the equipment at the finish. (This Scout should not race with the equipment.)

• **Pressure in a Bottle**
  - **Materials:** An unopened screw-top bottle (8 to 24 ounces) of soda for each Scout (Have Scouts choose a flavor they would like to drink afterward.)
  - **Method:** Go outside! Each youth vigorously shakes his or her bottle of soda for one
minute. When instructed to do so, each person slowly opens the soda bottle in such a manner to avoid spraying liquid. Clean up as appropriate.

- **Scoring:** The first to open his or her soda without spraying liquid wins.
- **Notes:** This activity demonstrates how a gas is suspended in a liquid and how, in order to avoid sudden release of that gas, the pressure must be released slowly. Ask this question: How does this exercise relate to decompression sickness?

**Fish ID Concentration**
- **Materials:** Matching pairs of fish ID flashcards (Find on the Internet or make your own.)
- **Method:** Mix up the cards and lay them out facedown in a traditional concentration memory grid. Teams take turns flipping over the cards trying to find matches. When a match is found, the team can earn extra points by identifying the fish on the card.
- **Scoring:** Each match earns the team 1 point, but identifying the fish gives the team an additional 2 points.

**Make a Cartesian Diver**
The Cartesian diver is named after Rene Descartes, a famous French scientist, mathematician, and philosopher. This is a fun activity that demonstrates how pressure changes buoyancy. Have a discussion as to what makes the “diver” go up and down.
- **Materials:** Each youth needs a writing pen lid (or medicine dropper), preferably transparent, as the diver; some clay or sticky tack; clean, clear plastic soft drink bottle filled to the top with water, and the cap
- **Method:** Step 1—Add some clay or sticky tack to the tip of the pen lid. Drop the pen lid, with the hole side down so that air is trapped inside, in a glass of water. If it floats with the tip of the lid just above the water, go to the next step. Otherwise, add or remove clay until the cap floats as needed.
  Step 2—Fill the bottle to the very top with water. Float the pen lid in the bottle. Screw on the bottle cap tightly.
  Step 3—Squeeze the sides of the bottle. The diver should sink to the bottom.
  Step 4—Relax your grip on the bottle. Now what did the diver do?
  - The diver, like a boat, floats because of buoyancy, the force equal to the weight of the water displaced by the volume of the diver. When the pressure increases, and the trapped air bubble compresses, the air displaces less water. At this point, the pull of gravity exceeds the buoyant force, so the diver sinks.

**CLOSING IDEAS**

- **Leader’s Minutes**
- **Closing Ceremonies**

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TROOP LEADER RESOURCE LINKS

Advancement Resources
Awards Central
Boy Scouts
Guide to Safe Scouting
SCOUTBOOK
Scouting Forms from the National Council
ScoutCast
Scouting Magazine
ScoutStuff.org (Retail Site)
ScoutingWire
Sign in to MyScouting.org
Take Youth Protection Training
The Outdoor Adventure Planning Guide
Troop Leader Guidebook Appendix
Uniforms