

## COOPERATIVE LEARNING STRATEGIES

Through cooperative learning, students work in small groups or in pairs to actively engage in the learning process and improve their understanding of the content. Each member of the team is not only responsible for their own learning, but also for helping teammates learn. Cooperative learning promotes achievement, enhances retention, increases desire and motivation, develops interpersonal and social skills, builds self-esteem, and improves student satisfaction with their learning experience.

### CIRCLE THE SAGE

1. The teacher polls the class to see which students have a special knowledge to share. For example the teacher may ask who in the class was able to solve a difficult math homework question, who had visited Mexico, who knows the chemical reactions involved in how salting the streets help dissipate snow.
2. Those students (the sages) stand and spread out in the room. The teacher then has the rest of the classmates each surround a sage, with no two members of the same team going to the same sage.
3. The sage explains what they know while the classmates listen, ask questions, and take notes.
4. All students then return to their teams. Each in turn, explains what they learned. Because each one has gone to a different sage, they compare notes.
5. If there is disagreement, they stand up as a team.
6. The disagreements are discussed as a class and resolved.



### COOPERATIVE PLAY

1. Teacher provides materials needed for activity. Materials may be placed at a learning center, at each team table, or rotated from table to table.
2. Teacher explains any safety issues associated with the materials, but does not tell students HOW to play with the items.
3. Teacher asks: "What can you discover about these materials?"
4. Students play with materials that they will be using in a lab experiment.

### GIVE ONE, GET ONE

1. Students fold paper in half lengthwise (hotdog style). Students then open paper and draw a line down the crease. At the top of the left column, students write "GIVE ONE." At the top of the right column, students write, "GET ONE."
2. Teacher poses a question or a topic with multiple answers and gives a time limit.
3. Students list as many things as they know in the "GIVE ONE" column.
4. Teacher tells students to stand, put up hand, and find a partner.

5. Once students have greeted their partner, Partner A gives an answer to Partner B. If Partner B has that answer on his/her paper, he/she checks it off. If it is a new answer, he/she writes it in the "GET ONE" column.
6. Partner B gives an answer; Partner A checks or writes.
7. Partners say thank you/good-bye, put hand up, and find a new partner.
8. Continue until teacher says to stop.

## MIX-FREEZE-PAIR

1. Classmates mix by walking quietly around the room while music is playing.
2. After about 10 seconds, teacher stops the music and announces, "Freeze." Students immediately stop and stand still.
3. When everyone is still, teacher announces, "Pair." Students pair with the person closest to them and link arms to show that they are partners.
4. Teacher announces topic or discussion question. Give "think time."
5. Pairs discuss the topic. Everyone faces the teacher when they have finished discussing the topic.
6. Teacher then announces, "Mix." Repeat activity with additional questions.



## MIX PAIR SHARE

1. Students silently mix around the room. **NO TALKING!**
2. Teacher calls "pair."
3. Students pair up with the person closest to them and shake hands. Students who haven't found a partner raise their hand to find each other.
4. Teacher asks a question and gives think time.
5. Students share with their partner per teacher instructions.

## ONE STRAY

At the completion of a team task, teacher calls on one student from each team to stand.

1. Teacher directs standing students to move to a team with an empty seat.
2. Student who moved compares his/her teams' answers with the new teams' answers.
3. On teacher's cue, students move back to their original teams. Teams discuss answers that they got from others.
4. If there is a discrepancy, teams may rework problems, change answers, or stick with their original answer.



## PAIRS CHECK

1. Teacher poses a problem.
2. One partner solves the problem while the other coaches.
3. Students switch roles for the next problem.
4. After every two problems, the pairs check their answers with another pair and celebrate their answers.



## PAIR DISCUSSION

1. Teacher designates pairs. "Work with your shoulder partner."
2. Teacher assigns task and explains the procedure.
3. Students talk over the problem with a partner.
4. A time limit is advisable so that all students know how much time they have to discuss the topic.
5. While students are discussing, teacher monitors teams closely to ensure that students remain on topic, that they understand the question, and that they have enough background knowledge to discuss the topic accurately.

### VARIATION:

**TEAM DISCUSSION:** After the topic is announced, teams of 4 students put their heads together to complete the task.

**CLASS DISCUSSION:** A follow-up class discussion might be needed to clear up misunderstandings.



## PAIRED HEADS TOGETHER

1. Teacher asks a question and gives think time.
2. Students record their answer.
3. Students pair up with their shoulder partner and share their answers. This may be done back and forth *RallyRobin* style. Each student records his/her partner's answers.
4. Students then pair up with their face partner and *RallyRobin* their answers.
5. The teacher then calls a number and students with that number share their answers.

\*\*Paired Heads is an alternative to Numbered Heads Together, which you learned last week. Spencer Kagan felt that some students were not participating in Numbered Heads. It was easy for a student to slip by without contributing. This does not go along with cooperative learning's requirement for equal participation.



## POPCORN SHARE



1. Teacher poses a question or problem with multiple answers. Teacher then gives think time.
2. When the teacher calls, "Popcorn," the students quickly and voluntarily pop up from their chairs one at a time to share an answer.
3. Seated students write responses and mark incorrect answers.
4. Inaccurate information is discussed at the conclusion of the activity.

## RALLY COACH

1. Teacher asks one student from each pair of students to take out a piece of paper (worksheet, lab report, etc) and a pencil.
2. Partner A works the first problem while Partner B watches, listens, coaches, and praises.
3. Partner B solves the next problem while Partner A watches, listens, coaches, and praises.
4. Partners take turns until the task is complete.

## RALLY ROBIN

1. Teacher poses a question or a problem.
2. In teams, students take turns responding orally to the question.



## RALLY TABLE

1. Teacher explains the task.
2. In pairs, students take turns completing the task.

### VARIATIONS:

**RALLY COACH:** Students work with partner. The pair has one paper/pencil and take turns with one solving problem while the other coaches. Partner A solves the first question while Partner B watches and listens, coaches and praises. Students switch positions with Partner B solving and Partner A coaching. This may also be used with oral questions or with manipulatives.

**SIMULTANEOUS RALLY TABLE:** All students have paper/pencil. Students work with a partner to compare or contrast topics. Each student places a different heading at the top of the paper. Students write one thing about their topic and pass the paper to their partner. Partner then writes about the other topic. Continue passing papers back and forth until teacher says to stop.

## ROUND ROBIN

1. Teacher poses a question or a problem.
2. In teams, students take turns responding orally to the question.

### VARIATIONS:

**SINGLE ROUND ROBIN:** Each student responds one time.

**ALL WRITE ROUND ROBIN:** Each student responds orally. If teammates agree, all students record the answer on their own paper.

**TIMED ROUND ROBIN:** Each student contributes one time for a designated length of time (one minute, 30 seconds, etc).



## ROUND TABLE

1. Teacher asks one student from each team to take out pencil and paper.
2. Teacher poses a project, question with multiple answers, a topic to write about, or a task that has many possible solutions, steps, or procedures.
3. In teams, students take turns passing the paper and pencil or team project, each writing one answer or making one contribution.

### VARIATIONS:

**ROUND TABLE CONSENSUS:** Student with the piece of paper and pencil verbally gives an answer. Teammates must show agreement or disagreement (thumb up or thumb down). If there is disagreement, team discusses the answer until there is consensus. All teammates must agree before student records answer.

**SIMULTANEOUS ROUNDTABLE:** Teacher asks a question or poses a problem which has multiple answers. In teams, students each write a response on their own piece of paper. Students then pass their papers clockwise so each teammate can add to the prior response.

## STAND UP, HAND UP, PAIR UP

1. Teacher poses a question or problem and gives think time.
2. Teacher calls, "Stand up, hand up, pair up."
3. Students stand, put their hand up, and pair up with a student from a different table.
4. Pair discussion. Students talk over the problem with a partner.



## TEAMMATES CONSULT

1. Each student has his/her own copy of the worksheet or lab report.
2. Students put their pencils down or in a cup at the center of the table.
3. Teammates discuss the first question with Person #1 leading the discussion. All members of the team contribute, but all do not have to agree on one answer.
4. When everyone on the team is ready with an answer, team members pick up their pencils and silently write the answer to the first question. They may not talk to other teammates, ask for help, copy answers from others, or discuss the question further.
5. Repeat steps for the next question with Person #2 leading the discussion.
6. Continue by rotating the leader role until all questions are answered.

## TEAM PROJECT

1. Teacher clearly explains project and amount of time teams have to complete it.
2. Teacher assigns roles or lab jobs.
  - a. Principal Investigator directs team to follow procedures and assists with experiment;
  - b. Materials Manager gathers materials and does experiment;
  - c. Reporter records data;
  - d. Timekeeper/Clean up Captain keeps time and helps clean up.
3. After distributing materials, teams work to complete task.
4. Teacher circulates and monitors students closely.
5. Teams share their project or lab findings with class or with another team. This may be done by creating a large graph or data table.



## 3 STEP INTERVIEW

1. Within each team, students form pairs. Students nearest the front of the room are partner "A" and those nearest the back of the room are partner "B."
2. Partner A interviews Partner B. Partner A asks open-ended, fat questions. Partner B answers.
3. Partner B interviews Partner A by asking questions.
4. In Round Robin fashion, each of the four-team members introduces his/her partner to the team and summarizes the information that was shared during the interview.

## THINK-PAIR-SHARE

1. Teacher poses a question related to the lesson.
2. Give sufficient think time for individuals think.
3. Students pair to discuss responses.
4. Students share their responses with the team or the class.



### VARIATIONS:

**THINK-PAIR-WRITE:** Students discuss the response with their partner. Then instead of verbally sharing answers in teams or with the class, all student write down their ideas. Pairing helps students develop a better understanding of the topic before writing.

**THINK-WRITE/DRAW-PAIR-SHARE:** Students write or draw their own ideas before they pair up to discuss them with a partner. This allows students to more fully develop their own ideas before sharing.