

Lesson Plan: Scientists, Assemble!

Time Needed:

30 min - 1 hour

Materials (for each student or group of students):

- *Natural Inquirer* scientist and engineer cards. Order sets at <http://www.naturalinquirer.org/Scientist-Card-Ordering-Page-v-155.html>, or download copies at <http://www.naturalinquirer.org/Scientist-Card-Series-v-168.html>.

In this activity, students will assemble a team of five scientists to best address a given scenario.

Prep

Have students browse the cards to become familiar with some of the specialties of the scientists and features of the cards. A good way to practice the activity is to have students work collaboratively to form one team before working individually on their own teams.

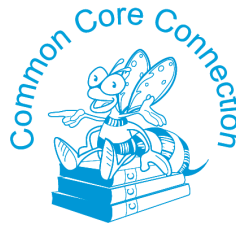
You may also want to write out the scenarios on your own cards or on the board, so students can refer to them during the activity.

Procedure

Deal 5 cards to each student. Place 12 cards in the center of the table, face-up so everyone can read them. Students do not have to keep their hands secret, so they may place their own cards in front of them face-up. The remaining cards should be stacked picture side down and placed to the side. This will be the draw pile.

There will be 5 rounds of play in which students will attempt to assemble the best team for a given scenario. The suggested scenarios are:

- You are researching how a factory upstream is affecting the river and watershed downstream.
- You want to build a new trail and visitors' center in a national forest.
- You are trying to predict where the next big wildland fire will occur and how it will impact the local ecosystem.
- You are helping to plan a new city, including designing its layout, where its roads and



utilities will go, where its green spaces are, etc.

- You are trying to develop a new wood product that can resist termites.
- A large lake in your town is drying up and will soon disappear altogether. You are trying to convince your city council to take steps to protect the lake.
- An invasive species of beetle is attacking trees in a national forest, and you are working to stop the invasion and protect the trees.
- You've noticed that people in your community are spending all their time indoors on screens, and you want to get community members more active and engaged in activities outdoors.

Choose one scenario and read it to your students. They will then have 5 turns to assemble the best team to address that scenario.

On their turn, a student will either draw a card from one of the 12 face-up in the center or will draw from the face-down stack. They will then discard any one card from their hand, so that 5 cards are remaining in front of them. Play will continue to the next player. Players cannot draw from the discard pile.

After 5 turns, the players' teams are complete. Have each player present their team and explain why their team will be most effective at addressing the given scenario. This can also be done as a writing assignment. The class or a third party can vote on who has assembled the best team.

Variations

Assemble smaller or larger teams; give each player a different scenario; have players write scenarios of their own; as a follow-up, have students discuss what makes the best team to address a problem or question - a variety of specialties or more people in the same field? For more competitive play, allow players to draw cards from other players' hands.