

Think Tank

Described below are five tasks you must accomplish during this time period. To succeed in them will require teamwork, good planning, and careful thinking. All materials will be provided by the judges. Use them wisely. They will not be replaced. You may not use your own things. You will be given an hour and a half to complete all of these activities. A work area will be designated for each group. Stay in your area. No cheating. Cheaters will be disqualified, drawn and quartered, severely tongue-lashed and THEN sent to a time-out area for the rest of the time period.

Scoring will be done as follows: First place will receive five points, Second place three points, and third place will get one point. The team with the highest score will win something really neat that will be presented on Friday.

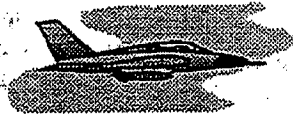
1. Paper Tower

You must construct a tower using one sheet of paper, 30 cm of tape, and scissors. The tower must be free standing and self supporting (i.e. you cannot tape it to anything in the room, including the table, for support). If you waste your supplies, you cannot have replacements, so it will be to your advantage to plan your structure before attempting to build it. You may use only the materials described and these will be supplied to you. The group with the tallest tower wins. Good Luck.



2. Paper Airplane

Build an airplane using one piece of paper and 10 cm of tape. As above, materials will be supplied and are not replaceable. You are trying to build the plane for distance. Planes will be tested all at one time at the end of this activity. Each group will send its craft on three flights; distances will be averaged.



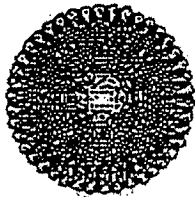
3. Penny Barge

You will be given a square piece of aluminum foil with sides of 15 cm. Your task is to build a boat capable of supporting a heavy load. At the end of this activity we will gather and test each vessel by loading it up with pennies. The boat which stays afloat under the greatest weight wins. As usual, you must use your material well. Material can not be replaced.



4. Build a Plankton

Most plankton are adapted to be slow sinkers. You must create a plankton that exhibits this quality. Plankton that float will be disqualified. For this task you will be supplied with: one sponge stopper, one cork, and 25 cm of thread. You do not have to use everything. You cannot use anything else. You test your plankton once so make the most of this opportunity. You have to tell one of the judges when you want to test your plankton.



5. Paper Platform

Make a platform out of one piece of paper and 10 cm of tape. It must be 1/4 inch in height and should be capable of supporting a great deal of weight. Judges will test the strength of each group's platform by piling books on it. All corners of the books must be supported.

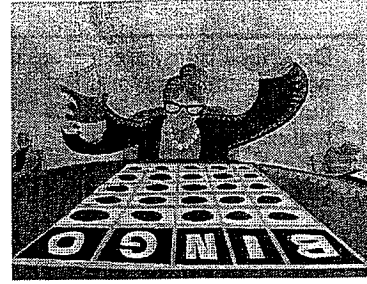


Team Scores:

Paper Tower	_____
Paper Airplane	_____
Penny Barge	_____
Build a Plankton	_____
Paper Platform	_____
Total	_____

Cape Cod BINGO

Choose your favorite words below to make your own BINGO board.



		FREE SPACE		

Word Bank

- | | | | | |
|-------------|---------------------|---------------|--------------|---------------|
| bearberry | squirrel | aquarium | low tide | slipper shell |
| Namskaket | Cape Cod Sea Camps | whale | fiddler crab | periwinkle |
| hummock | kettle hole pond | mummichug | Wampanoag | baleen |
| scallop | Heritage Plantation | pipefish | razor clam | white cedar |
| Whydah | glacial | wind | blue mussel | white oak |
| tide pool | moon snail | dune | Plimouth | salt marsh |
| littleneck | I can and I will | whelk case | pitch pine | quahog |
| black oak | red cedar | Wood's Hole | rock crab | poison ivy |
| rugosa rose | horseshoe crab | Provincetown | Carousel | Alvin |
| Marconi | striped skunk | laughing gull | skate case | hermit crab |
| lobster | | | | |

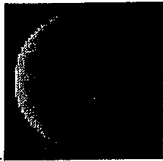
Phases of the Moon

While you have been on Cape Cod have you looked up?

In what phase is the moon today? Circle the moon phase below that is closest to what you see in the sky.

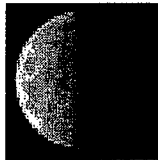
Is it a full moon? A waxing moon? A waning moon? A new moon?
How can you tell?

8



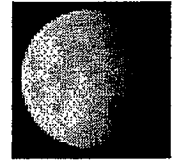
Blank writing lines for response to question 8.

7



Blank writing lines for response to question 7.

6



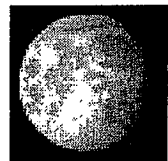
Blank writing lines for response to question 6.

1



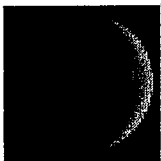
Blank writing lines for response to question 1.

5



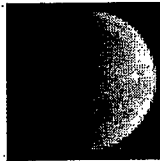
Blank writing lines for response to question 5.

2



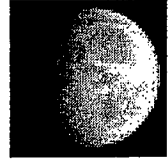
Blank writing lines for response to question 2.

3



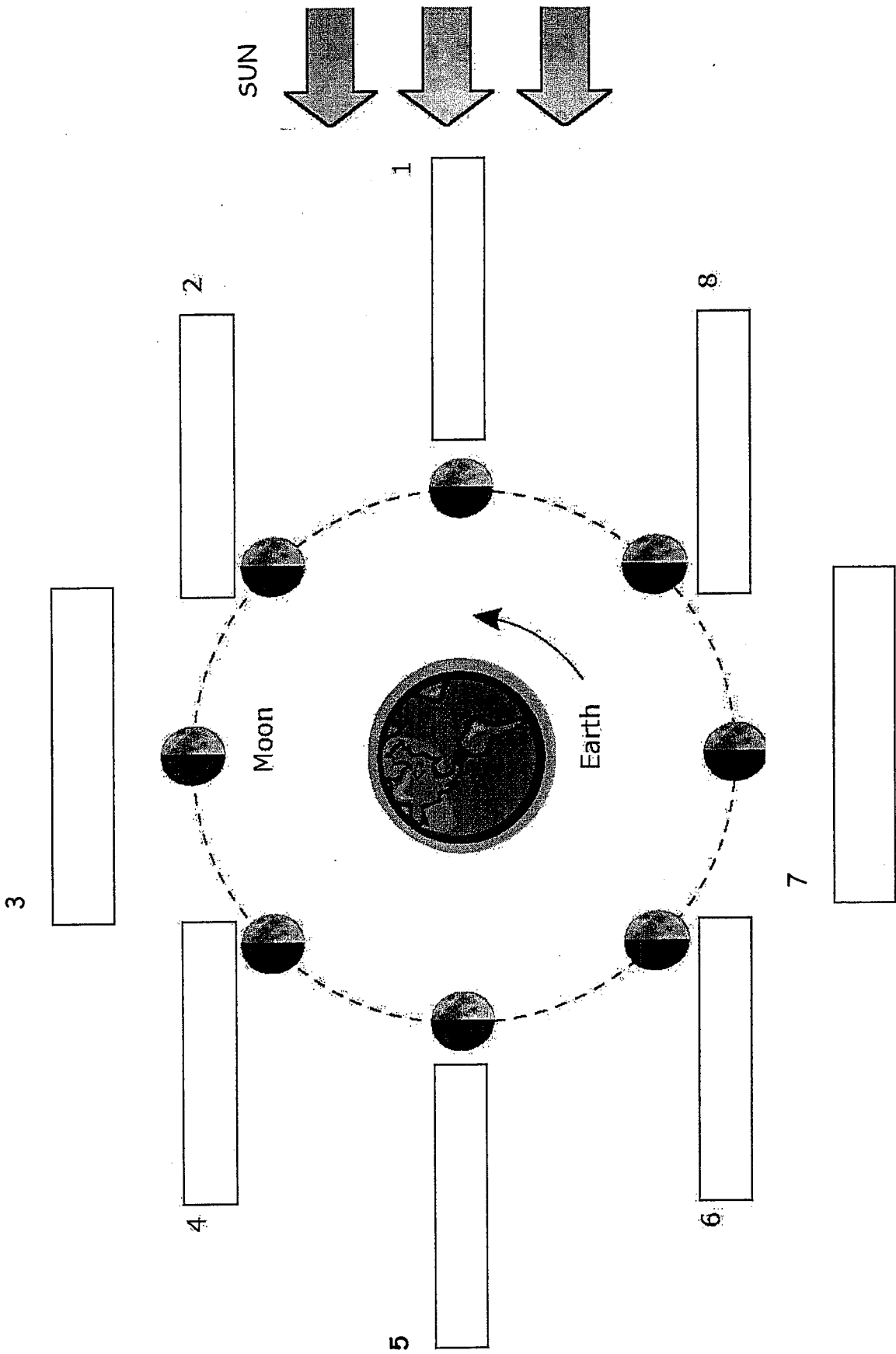
Blank writing lines for response to question 3.

4



Blank writing lines for response to question 4.

Which moon goes where?



Sky Chart for the Week of June 1-5, 2009

What constellations did you find? What planets did you find?

Highlight the constellations and planets that you found.

How can you tell the difference between a star and a planet?

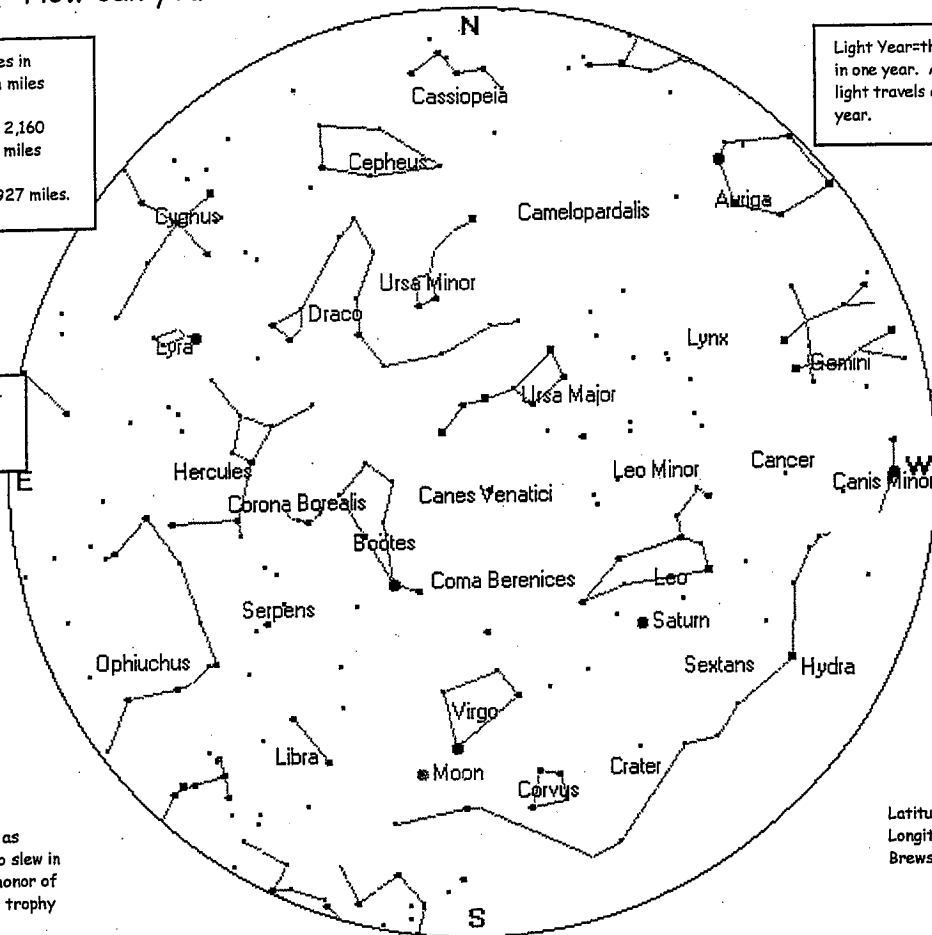
The sun is 865,000 miles in diameter and 93 million miles from Earth.
The moon's diameter is 2,160 miles and it is 239,000 miles from Earth.
Earth's diameter is 7,927 miles.

Light Year=the distance that light travels in one year. At 186,300 miles per second, light travels almost 6 trillion miles in one year.

Bootes' lead star is Arcturus. It is 25 times the diameter of the sun and 100 times brighter.

Mars' diameter is 4,200 miles. It is 130 million miles from the sun. And it is 35 million miles from Earth.

Saturn's diameter is 74,900 miles. It is 887 million miles from the sun. And it is 746 million miles from Earth.



Latitude: 41.76
Longitude: -70.08
Brewster, MA

Draco, The Dragon
Some myths name Draco as Pythos, the dragon Apollo slew in order to win Delphi. In honor of his victory, he placed his trophy among the stars.

Virgo (There are as many as 3000 galaxies in the Virgo cluster lying up to 70 million light years away)
Identified with many heroines, Virgo is usually associated with Ceres, goddess of the harvest. The brightest star in Virgo, Spica, means an ear of wheat or corn.

Ursa Major, the Greater Bear (The Big Dipper is the 7 brightest stars of Ursa Major)
Zeus fell in love with Callisto, daughter of Lycaon and by her had a son, Arcas. In order to spare Callisto from the wrath of Hera, Zeus changed her into a bear to hide her identity.

Ursa Minor, the Lesser Bear (The Little Dipper-The star at the top of the handle is the North Star that lies directly above the North Pole.)
Hera, discovering the tryst Zeus had had with Callisto (see Ursa Major), convinced Arcas to hunt after his mother, who had been changed into a bear by Zeus. To protect Callisto, Zeus changed Arcas into a bear and carried them both by their tails to the heavens, where they became constellations. Annoyed at this honor, Hera convinced Poseidon not to allow the bears to bathe in the sea. For this reason, Ursa Major and Ursa Minor never sink below the horizon.

Cassiopeia
Cassiopeia is named after the queen of a country on the northern coast of Africa, Aethiopia (not modern Ethiopia). She boasted that she and her daughter Andromeda were more beautiful than the Nereids, the 50 sea nymph attendants of Poseidon, the sea god. This was insulting to Poseidon. To punish Cassiopeia, Poseidon sent a flood carrying a sea monster to destroy the kingdom. Cassiopeia's husband, King Cepheus consulted an oracle, who told him that the only way to appease Poseidon and stop the monster was to sacrifice Andromeda. Andromeda was chained to a sea cliff to be eaten by the monster. She was rescued by the hero Perseus who had seen her chained to the cliff and had fallen instantly in love with her. Perseus offered to kill the sea monster and rescue Andromeda in return for her hand in marriage. Cepheus and Cassiopeia agreed reluctantly. Poseidon is supposed to have set images of Cepheus and Cassiopeia in the sky. As a punishment for her treachery, her constellation (a zig-zag shape like an "M" or "W") is supposed to represent Cassiopeia either chained to her throne (in an ironic reference to her daughter's ordeal) or stuffed into a basket.

Bootes
There is no single definitive myth associated with this constellation, but it seems to have impressed early civilizations with its resemblance to a human torso (a kite-like shape, sometimes with legs or a raised arm). regard the figure in Boötes as a keeper or driver or chaser of bears, represented by the constellations Ursa Major and Ursa Minor. The most prominent star in Boötes is the 4th brightest star in the sky, an orange-yellow giant known as Arcturus, which means "guardian of the bears". Arcturus was an alternate name of this constellation. It is not clear which came first, seeing Ursa Major and Minor as bears, or the idea of the star Arcturus as a guardian of bears. In any case, versions of the legend of Callisto and her son Arcas, one or both of whom were transformed into bears and placed in the sky by Zeus, are associated with Boötes.

Leo, the Lion (look for a backward question mark with a bright star, Regulus, at the bottom of the question mark. Regulus marks the lion's heart).
This is the Nemean Lion that Hercules battled as the first of his Labors. No weapon could pierce its skin, but Hercules killed the lion by strangling it. After killing the lion, Hercules used its own claws to skin it. Hercules wore the skin as a cloak, and it became his trademark.

Clouds

Clouds are an excellent indication of the weather you will experience on a given day or even on the next day. Following is a short description of some clouds and their related weather.

- Cumulus-puffy, white clouds that usually indicated good weather. During the "dog days of summer" they can grow into thunderheads.
- Cirrus - thin, high and wispy clouds that usually mean that the day will proceed without weather-related problems. If wispy "horsetails" gradually turn into a thin sheet - be prepared for some rain in the next 24 hours.
- Stratus - low, flat clouds that obscure the sky. These are rain clouds and the rain could last all day. On the Cape, lifting of a morning fog can lead to incorrect forecasts.

Tides

The tides are caused by the moon's and sun's gravitational attraction to the Earth and its oceans. Because the Moon is so much closer to us than the Sun (240,000 miles vs. 93,000,000 miles), the Moon is the main cause of the tides on the Earth. As the moon circles the Earth (about once a month), the times of high and low tides change each day. The moon rises about 52 minutes later each day and this causes the time of the tides to shift by the same amount each day. If a high tide occurs at noon on Monday, what time will the same high tide be on Tuesday? By the way, at our location there are two high tides and two low tides day. If you carefully measure the location of the moon and the tide times, you may discover what is meant by "tidal lag."

Waves

Waves form as a result of winds. As the winds travel over the water, some of its energy is transmitted to the water. The longer the wind blows; the stronger the wind is; and the greater the distance the wind travels over the water (fetch) will determine the size and strength of the waves it produces. Surfers just love to hear about a good storm out to sea.

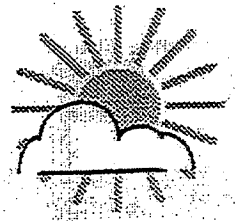
Night Sky

For some of you this may be your first opportunity to see the night sky without the light pollution from Hartford and Enfield. Take advantage of the great viewing conditions to look at the Milky Way and the circumpolar constellations. Star maps are available for your use. You may be surprised at how much your teachers know about heavenly bodies. Can you find the Dippers or the North Star?





Cape Cod Weather


Record Weather Data Each Day Before Dinner




Sky Cover (%)



100

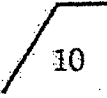

75

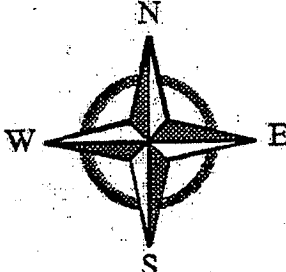

50


25

Wind Speed (Knots)


5


10

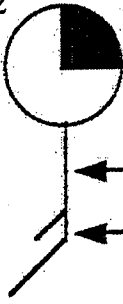


Temperature

72

Barometric Pressure

30.1




← Sky Cover

← Wind Direction

← Wind Speed


Estimating Wind Speed in Knots	<5	calm or barely noticeable
5 to 9	5 to 9	wind felt on face, leaves rustle
10 to 14	10 to 14	leaves and twigs in motion
15 to 19	15 to 19	small branches move and sway
20 to 24	20 to 24	large branches move

Time: _____




Day: _____ Date: _____

Time: _____




Day: _____ Date: _____

Time: _____



Day: _____ Date: _____

Time: _____



Day: _____ Date: _____

CAPE COD QUOTES OF THE DAY

The following quotes are taken from the history, Of Plymouth Plantation, written by William Bradford, governor of the Plymouth Plantation from C.E. 1627 to 1656.

MONDAY, _____ (enter date) quote comes the chapter entitled "Showing the Reasons and Causes of Their (the Pilgrims') Removal (from England)."

"The place they had thoughts on was some of those vast and unpeopled countries of America, which are fruitful and fit for habitation, being devoid of all civil inhabitants, where there are only savage and brutish men which range up and down, little otherwise than the wild beasts of the same."

How did Bradford first look upon native Americans? _____

TUESDAY, _____ (enter date) quote explains how the Cape was named.

"A word of two by the way of this cape. It was thus first named by Captain Gosnold and his company, Anno 1620. and after by Captain Smith was called Cape James; but it retains the former name amongst the seamen (because they took much of that fish there)."

Why did Gosnold's name for the Cape win out over Captain Smith's? _____

WEDNESDAY, _____ (enter date) quote is from the chapter entitled, "Anno 1621 (Mayflower Departs and Corn Planted)."

"They now began to dispatch the ship away which brought them over, which lay till about this time, or the beginning of April....Afterwards they (as many as were able) began to plant their corn, in which service Squanto stood them in great stead, showing them both the manner how to set it, and after how to dress and tend it."

How might the English view of the native Americans have changed since the time they were seen as "savage and brutish men?" _____

THURSDAY, _____(enter date) quote is a famous description of the "First Thanksgiving."

"They began now to gather in the small harvest they had, and to fit up their houses and dwellings against winter, being all well recovered in health and strength and had all things in good plenty."

List five things you think these English settlers would have felt thankful for in the fall of 1621:

1. _____
2. _____
3. _____
4. _____
5. _____

FRIDAY, _____(enter date), the day of our "Removal" from the Cape to the Connecticut River Valley. Today's quote speaks of the Dorchester group of Puritans who, in 1630, settled what is now Windsor, Connecticut.

"Some of their neighbours in the Bay, hearing of the fame of the Connecticut River, had a hankering mind after it (as was before noted) and now understanding that the Indians were swept away with the late great mortality (a smallpox epidemic), the fear of whom was an obstacle unto them before, which being now taken away, they began now to prosecute it with great eagerness. The greatest differences fell between those of Dorchester Plantation and them here; for they set their mind on that place, which they had not only purchased of the Indians, but where they had built...."

Why do you think these Dorchester neighbors "had a hankering mind after" the "fame of the Connecticut River" and "set their mind on that place?"

Get To Know Your Cabin Bingo

Directions: You will have about 10-15 minutes to go around the cabin, and in each box you will write the name of a different cabin-mate who fits that descriptor.

Is new to Sage Park as a 7 th grader	Born in June, July or August	Has a parent/guardian who is a teacher	Likes to Swim	Enjoys running
Born in another state	Born in another country	Has a really good book with them	Has more than one pet	Is named after someone
Is the oldest of their siblings	Has a large family (5 or more people)	Your own name	Plays a musical instrument	Speaks another language other than English
Has been to Cape Cod before	Is on Cape Cod for the first time	Has a pet without fur	Likes to cook	Can roll their tongue
Ate chocolate today	Has met a famous person	Whose favorite meal is breakfast	Is left-handed	Has lived in the same house their entire life

DIRECTIONS: Starting at the location marked next to your cabin number below (A, B, C, etc), with your cabin-mates, travel *in order* to each location marked with a letter. Get the initials of the chaperone and the answer to the question at each location.

Get To Know Cape Cod Sea Camps

- A. 55 G "Lower" Boys & Girls Showers
When you go to the showers, what must you wear? _____
- B. 10 B "Lower" courts
At these courts, you can play _____
- C. 11 B Amphitheater
What are the words written on this building? _____
- D. 50 G Dining Hall
How long do you have to eat a meal here at CCSC? _____
- E. 33 B Pavilion/Playing Fields
What can you play in the Pavilion? _____
- F. 30 G "Upper" Girls Showers
What else should you remember about using the showers? _____
- G. 14 B Art Center
We might use the art center if it _____
- H. 83 G Day Camp Showers
How many showers are on one side of this building? _____
- I. 82 B Dumpster
On what day will someone from your cabin take a trip to this dumpster? _____
- J. 48 G "Upper" courts
What can you play at these courts? _____
- K. 13 B Nurse
What are the names of the nurses? _____
- L. 12 B "Upper" Boys Showers/Ghost Cabin
When is it okay to leave the cabin in the morning? _____

