We'll start by making clear some of the easiest ideas and plans in building things that g
up. We'll talk about things that fly, things that go to space, and how to get ideas to mak
these things good. You'll learn quickly about up-goers because you'll be working with
computers that tell you when you're learning the right things. You and your team will u
your hands as you come up with up-goers that go up because they're lighter than air. Fi
you come up with them, then you build them, then you make them fly in the right
direction by sending them the kind of waves you can also listen to. This will help you
learn how things that are supposed to work are kind of like things that actually work. A
we check whether your ideas are good or bad, there's a part where you try to make the u

17 A	105 A	134 A		86 A	39 A	1 A			55 A	68 A	
63 A	102 A	31 A	60 A	111 A							
163 A	23 A		96 A	113 A	120 A		70 A	126 A	108 A		
47 A	142 A	13 A	143 A				167 A				

You'll learn how to make good ways to control things that watch what they're doing and fix i
You'll learn what these things that fix themselves are like and why they're good, how to tell
hing when things happen or how often things happen, how to tell
like they're supposed to and by how much, whether things are
by how much, two kinds of pictures you can look at to tell
like they're supposed to, figuring out how to make things work the
how often things happen, and ways to talk about these
things that

26 B	12 B	74 B		18 B	137 B		152 B
36 B	94 B	7 B	115 B	50 B	146 B	125 B	156 B

There are lots of ways to tell whether things that are supposed to fly are good at flying.
You can write down a lot of things and think about them, you can work with a lot of
numbers, you can just try things and see what works, and sometimes you can even do
all of these at the same time. You'll learn how to match the way things act up close to
the different way they act from far away, how to look at the way wind goes around
flying arms from far away, how to understand flying arms that end instead of the ones
that don't end that aren't real, how to understand

166 C	38 C	56 C	11 C	82 C	3 C	98 C					
144 C	89 C	44 C	118 C		59 C	30 C	123 C	72 C	19 C		
40 C	46 C	15 C	66 C	148 C		135 C	9 C	158 C	162 C		
	77 D		130 D	81 D	5 D						
106 D	153 D	51 D	32 D								
124 D	101 D	69 D		84 D							

Things that fly often have lots of stuff moving around in the things that make them go,
and that stuff gets kind of bigger and smaller when it needs to. This is actually pretty
much the way sound works, too, so we'll start with how you can talk about stuff that
moves when you fly in the same way you talk about sound and how it hits things. When
you understand sound you can use it to understand things that go around fast and things
that go forward. One way to look at moving stuff is to say it's all moving back and
forward in a straight line, like it's on a track. That's how you start to learn about other
things, like what happens to moving stuff when you are going really fast and it piles up in
front of you, why moving stuff slows down, what happens when two kinds of moving
stuff get together and now there's more stuff that's moving more, stuff that goes aroun
and around as it moves, and stuff that moves in different ways in different places. Nex
we'll talk about stuff that moves and gets bigger and smaller but you're not quite sure
what it's going to do next, what all this sound stuff is anyway, where sounds and wave
come from and where they go, how to pretend that all the noise making stuff going on
inside a thing that makes you go is just a few things that make noise in four directions,
and how to talk about all the noise that flying things make and how much noise there i

8 E		35 E	65 E								
138 E	20 E	57 E	52 E	151 E							
48 F	90 F	79 F	104 F	25 F	110 F	133 F		160 F	14 F		
41 F		114 F		62 F	78 F		95 F				
83 F	29 F	139 F		93 F	132 F						

Here we get to the easy things about things that move in space. One of these is the way two things in space go around each other. You can tell this from the way everything starts rk on the outside. When you know this, you can use it to make space irection, and sometimes make them go in the right direction to get to people went to or others that people can't go to yet. Two ways to make ight direction are to make them throw out lots of fire or to make them f fire to speed up, slow down, or change direction after

127 G	43 G		159 G	49 G			99 G
	54 G	21 G			67 G		88 G	87 G
128 G		28 G					
112 G	145 G			141 G	34 G	157 G	4 G	
	75 G	103 G		150 G	80 G	164 G	155 G

121 H	33 H	6 H	64 H	71 H	117 H	53 H
	97 H	58 H	92 H	2 H	22 H	

This is where we talk about the stuff you burn to go really fast. A space car needs parts that burn a lot of stuff to go up from the ground, go around the ground by going so fast to the side that you miss the ground all the time, and go to other worlds with their own ground. The stuff burning thing can burn dry stuff, two kinds of wet stuff that you p together, or both. An important thing to know about this is how hot it gets when you

1 A	2 H	3 C	4 G	5 D	6 H	7 B	8 E	9 C	10 J	11 C	12 B	13 A	14 F	15 C	16 J	17 A	18 B	19 C	20 E	21 G
22 H	23 A	24 J	25 F	26 B	27 J	28 G	29 F	30 C	31 A	32 D	33 H	34 G	35 E	36 B	37 J	38 C	39 A	40 C		
41 F	42 J	43 G	44 C	45 J	46 C	47 A	48 F	49 G	50 B	51 D	52 E	53 H	54 G	55 A	56 C	57 E				
58 H	59 C	60 A	61 J	62 F	63 A	64 H	65 E	66 C	67 G	68 A	69 D	70 A	71 H	72 C	73 J	74 B	75 G	76 J	77 D	78 F
79 F	80 G	81 D	82 C	83 F	84 D	85 J	86 A	87 G	88 G	89 C	90 F	91 J	92 H	93 F	94 B	95 F	96 A	97 H	98 C	99 G	100 J
101 D	102 A	103 G	104 F	105 A	106 D	107 J	108 A	109 J	110 F	111 A	112 G	113 A	114 F	115 B	116 J	117 H	118 C	119 J	120 A		
121 H	122 J	123 C	124 D	125 B	126 A	127 G	128 G	129 J	130 D	131 J	132 F	133 F	134 A	135 C	136 J	137 B	138 E	139 F	140 J	141 G	142 A
143 A	144 C	145 G	146 B	147 J	148 C	149 J	150 G	151 E	152 B	153 D	154 J	155 G	156 B								
157 G	158 C	159 G	160 F	161 J	162 C	163 A	164 G	165 J	166 C	167 A											

	16 J	122 J	73 J	136 J				
	100 J	119 J	27 J	91 J	24 J			
61 J	76 J	85 J						
	131 J	109 J	45 J	129 J				
37 J	116 J	165 J	10 J	107 J	140 J	161 J	154 J	
		147 J	42 J	149 J				